

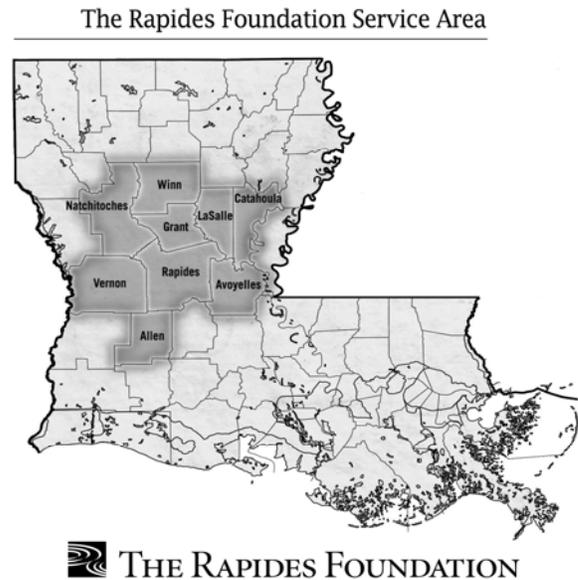
## Central Louisiana Academic Residency for Teachers Narrative

### I. Quality of the Project Design

(i). **The extent to which the proposed project represents an exceptional approach to the priorities established for this competition.**

#### A. The CART Partnership

*Central Louisiana Academic Residency for Teachers* (CART) represents a strong, committed partnership of nine Central Louisiana (Cenla) high poverty rural school districts within The Rapides Foundation service area (Allen, Avoyelles, Catahoula, Grant, LaSalle, Natchitoches, Rapides, Vernon and Winn), the Louisiana Department of Education, The Rapides Foundation and its education initiative, The Orchard Foundation, the



Urban Learning and Leadership Center, Advanced Learning Partnerships, Louisiana State University Alexandria and Louisiana State University, the state's flagship university. These partners have worked together many years to assess the challenges faced in these rural communities and provide interventions that will lead to improved student learning and performance in Cenla. The leadership and funding from the Teacher Quality Partnership Grant Program, in combination with the equally significant contributions from the CART partners, particularly The Rapides Foundation, will provide the necessary resources to address what is undeniably one of the most important needs of these rural districts—the critical shortage of high quality mathematics and science teachers. Louisiana State University (LSU) will serve as fiscal agent; LSU's Colleges of Education, Arts and Sciences and Basic Sciences will lead the effort

and the Evaluation Division of the Gordon A. Cain Center for Scientific, Technological, Engineering, and Mathematical Literacy will provide the evaluation services. The project design has been developed through extensive discussions and planning sessions with all CART partners, and is based on a wealth of knowledge and evidence gleaned from past programs, interventions, and evaluations conducted by the partners.

The CART Partnership is a direct result of the leadership in education exhibited by The Rapides Foundation (TRF) over the past ten years. The [REDACTED] invested in the nine districts by TRF and The Orchard Foundation (TOF), a non-profit TRF created to lead its education initiatives in the nine parish school districts, has changed the educational landscape throughout Cenla. Many of these small districts expend almost all of their funds for salaries and operating expenses, leaving few discretionary dollars. TRF has filled that void by bringing valuable resources, professional and leadership development to its district partners. While each of the partners has provided some match to this effort, TRF/TOF have committed a significant amount, which is in keeping with TRF mission's to dedicate 25% of its funding to education with the belief that strong education systems play a vital role in creating healthy communities (Hill, 2006). In a very real sense, TRF and its partners have established a unique, powerful learning community with everyone working toward the common goal of improved student achievement.

The Central Louisiana region nearly spans the entire mid-section of the state from Texas to Mississippi (Figure 1 – Cenla Region). A snapshot of the area according to 2007 Census data reveals that Cenla is home to 345,000 individuals whose median income ranges from \$22,528 to \$31,216 as compared to \$32,500 for the state and \$41,994 for the United States. The region is 26.8% African-American, 69.2% Caucasian and 4% other. Children from age five to 17 who live in poverty ranges from 21% to 39% compared to 27% within the state and 18% nationwide.

These demographics clearly show the need for CART and the resources and interventions it will bring into the region.

The CART Partnership will improve student achievement in our high needs districts by improving the quality and increasing the quantity of prospective new teachers. The Partnership will conduct a one-year site-based Rural Teacher Residency program followed by a strong induction system of support. Sixty of the best and the brightest teacher candidates will be recruited and prepared to teach Advanced Placement and Dual Enrollment mathematics and science courses, dramatically increasing the number of students who have the opportunity to learn higher level mathematics and science.

## **B. Goals and Objectives**

**1. Goal One:** Improve student achievement by increasing the number of highly effective/highly qualified high school teachers who teach Advanced Placement (AP) and Dual Enrollment (DE) mathematics and science courses as measured by their students' scores on criterion- and norm-referenced tests.

Objective 1.1: Establish a rigorous one-year, site-based Master of Natural Science residency program created for the CART Rural Teacher Residents (RTRs) to begin summer 2010.

Objective 1.2: Recruit 60 high quality teachers over the five years of the project who are recent science, technology, engineering and mathematics (STEM) graduates or mid-career changers and commit to teaching a minimum of three years within the partner districts.

Objective 1.3: Increase the number of students who achieve "3" or better on AP mathematics and science tests by 30%.

Objective 1.4: Increase the number of students by 50% who improve 20 percentage points on the CART posttest given to all AP students to measure growth.

**2. Goal Two:** Create a teacher induction program model that retains 85% of the RTRs in the CART program during their first three years of service.

Objective 2.1: Recruit, select and provide professional development to 30 successful Mentor Teachers who have the content knowledge and expertise to model best teaching and classroom management practices as measured by content background and classroom observations.

Objective 2.2: Develop a three-tiered leadership program for central office leadership teams and CART host school leadership teams and emerging leaders to build internal capacity to retain 85% of the RTRs.

### **C. Meeting the Goals and Objectives**

The CART Partnership design has five major components that are aligned with each absolute and competitive priority: 1) Absolute Priority #2 - Teacher Residency; 2) Competitive Priority #1 - Student Achievement and Continuous Improvement; 3) Competitive Priority #2 - School Leadership; 4) Competitive Priority #3 - Selection Process; and 5) Competitive Priority #4 - Broad-based Partnership. Each of the components address in an exceptional way the priorities established for this competition.

#### **1. CART Design Component #1 - Teacher Residency**

##### **Absolute Priority #2 - Partnership Grants for the Establishment of Effective Teaching**

**a. Residency Program:** The CART Partnership will implement a RTR program for four cohorts of 15 residents for a total of 60 new teachers over the five-year program. The RTR design is informed by the highly successful Boston and Chicago teacher residency programs as reported

on in the 2008 Aspen Institute Report, “Creating and Sustaining Urban Teacher Residencies.” There are six primary components to the residency: 1) initial two-month summer institute; 2) one-academic year district-based residency; 3) one-year Master of Natural Science program embedded within the RTRs’ first year; 4) final one-month summer institute; 5) professional development program; and 6) Mentor Teacher and two-year induction program.

**b. Participant Recruitment:** The CART Partnership will closely monitor the recruitment and selection processes and carefully choose individuals more likely to stay in their positions many years after the initial three-year commitment. In addition, each partner district will be involved throughout the recruitment and application phases to ensure that the RTRs chosen meet each district’s needs.

The most important step in preparing new teachers is to identify and recruit an individual who has a connection to rural communities either through personal experience or a family member who lives in a rural community (Oakes, 1995). An emphasis will be placed on *growing-our-own* teachers by recruiting prospective teachers from the Cenla area in an effort to increase long term retention. Individuals living within the region are already familiar with the lack of amenities, housing, etc., that many find difficult to accept in rural settings. The Mid-Continent Research for Education and Learning published a study on recruiting and retaining secondary rural teachers and found that one of the most effective ways to recruit was within their own service areas, “Their [principals] *grow-your-own* approach involved hiring graduates or other people from the general area who would be comfortable in the rural environment; they focused more on turning rural residents into teachers, rather than turning teachers into rural residents” (Beesley, et al., 2008, p. 19). This philosophy underpins the CART recruitment and selection process.

The CART Partnership will develop a comprehensive marketing campaign with the assistance of a highly successful public relations consultant who is an exceptional marketer with a proven track record of success in past recruiting efforts at LSU. The Partnership will actively and broadly recruit candidates through various venues, including the CART Web site, local television talk shows, radio announcements, community broadcasts, school/community newsletters, publications, local newspapers, etc., to advertise the program throughout the partnership, across the state and nationally. Brochures will also be disseminated electronically through various listserves and printed for distribution by all partners. It is anticipated that some districts will be able to recruit their own RTRs with the assistance of the supporting partners.

Individuals with content degrees and who have the backgrounds and exhibit attributes and abilities to become highly qualified teachers will be targeted to become RTRs in the CART program. Recruitment efforts will include under represented populations, mid-career professionals who are interested in teaching, former military personnel, and recent college graduates with stellar academic accomplishments.

**c. Initial Two-month Residential Summer Institute:** RTRs will enroll in an intensive one-year graduate program at LSU established for the CART Partnership that will lead to teacher certification and a Master of Natural Science (MNS) degree in mathematics, physics, chemistry or biology. The CART Residential Summer Institute at LSU will lay the foundation for teaching in high-needs, rural schools and prepare the RTRs for their first venture into classrooms as teachers. The customized coursework strands and professional development will provide the initial pedagogical content knowledge necessary to effectively teach AP/DE courses beginning in the fall under the tutelage of a Mentor Teacher with strong support from the CART Partnership.

**d. Graduate Program:** The MNS degree, administered through the LSU Graduate School under the stewardship of the College of Basic Sciences and the College of Education, provides the depth, as well as the breadth, of study in the sciences that is required of mathematics and science teachers. The program includes education methods courses that are augmented with professional development, classroom observations, lesson study and action research throughout the academic year. Requirements for the MNS degree are 36 semester hours of graduate courses distributed as follows:

- (1) A major in biology, chemistry, physics or mathematics - 15 semester hours minimum.
- (2) A minor in a cognate or related minor field - 12 semester hours minimum.
- (3) Education methods courses - nine semester hours minimum.

Of the total 36 semester hours, at least nine must be in courses numbered 6000 or above and of these nine hours, at least six must be in the major field of mathematics and/or science. A maximum of nine semester hours in mathematics and science education methods courses will be integrated in the MNS course work. All elective hours do not have to be taken in the participating departments. The resident will develop an approved program of study with the program administrator. A comprehensive final oral exam before the resident's committee is required to complete the degree. The RTRs will attend a meeting at the end of their Summer Institute to introduce themselves to the Mentor Teachers and begin to build a learning community among the Cohort participants they will be working with during the implementation phases of CART. Following this meeting, each Cohort RTR will visit with the Mentor Teacher in the classroom and meet their principal and other colleagues within the school and district.

**e. One-year District-based Residency:** After a short period of time (two-three weeks) observing and becoming familiar with the culture and routines of the Mentor Teacher's classroom, each

RTR will co-teach with his/her Mentor Teacher in one of the CART 15 host high schools 4-days per week. During that time, their primary task is to learn how to teach effectively using the latest research on how people learn. Developing pedagogical content knowledge within a job-embedded apprenticeship-like construct, with the full support of the Mentor Teacher, school and district administrations, and in collaboration with The Rapides Foundation (TRF), The Orchard Foundation (TOF), LSUA and LSU, will provide the kinds of learning experiences needed to produce a highly effective teacher.

RTRs will continue their master's program in an innovative configuration that relies heavily on the partnership with Louisiana State University Alexandria (LSUA), a four-year university that is in closer proximity to the service region than LSU. Two full-time LSUA CART faculty members, one from science and one from mathematics, who are also adjunct faculty to LSU, will be responsible for the academic year requirements of the residency program. They will work under the purview of LSUA faculty Drs. Thomas Awtry and Judy Rundell, Chairs of the Departments of Mathematics and Physical Sciences and Education respectively.

TOF will serve as the principal liaison representing CART to the districts. It is imperative that TOF coordinates all communications and scheduling with the districts to ensure seamless transitions among the various partner activities. TOF and LSU will assist the LSUA faculty implement the induction program throughout the 15 host schools. TOF, LSU and LSUA will remain in close contact and hold weekly meetings to carefully monitor the MNS implementation process.

LSUA faculty will provide support to the RTRs as they become acclimated to the classroom and better understand the role and work of a teacher. The faculty members will be available throughout the RTR induction period to provide additional assistance to both the RTR

and the Mentor. Their duties include 1) providing instructional services during the Summer Institute and building rapport with the RTRs from the onset of the program; 2) working with the RTRs, Mentor Teachers, principals and district personnel on all phases of program implementation; 3) informing the CART Management Team immediately as problems or concerns arise and providing monthly reports describing the progress made toward meeting the program's goals; 4) assisting TOF in scheduling evaluator observations, interviews and focus groups at the schools; 5) conducting model lessons and offering other services for the RTRs and Mentor Teachers as needed to maintain program fidelity; 6) securing the necessary resources required to implement the academic year component; and 7) organizing and facilitating the Friday follow-up sessions required for teacher certification and content coursework, and coordinating with TOF in scheduling four Saturday content workshops each semester to help build STEM teaching capacity throughout the systems.

The RTRs will receive a rich array of professional development offerings to meet the district hiring objectives and the content area needs of the 15 host high schools. RTRs will also collaborate and work with other teachers during the year including AP and DE teachers to experience a full range of school and classroom environments. As a result of the dearth of AP/DE teachers, it is anticipated that some RTRs assigned to host schools where there are no teachers teaching AP or DE courses will be cycled in and out of AP and DE classrooms in other schools within the nine districts.

An important component of the CART program is building a sense of community among the CART Partnership and its participants. Studies in rural schools have clearly shown that teachers will continue to stay in schools that may have lower pay scales and fewer amenities if

there is a strong, knowledgeable principal at the helm, a support structure in place and a caring, connected faculty. CART will work with each school to create and sustain this model.

**f. Professional Development Program:** Like the Chicago and Boston residency programs, the CART Partnership program will immerse the residents in diverse learning situations ranging from interactions with families to community stakeholders. The purpose of exposing new teachers to the community where their students reside is to ensure the residents understand the rural culture, how it operates, its strong and weak links, and its opportunities for positive growth. Collins (1999) states, “The degree to which a rural teacher becomes involved in community educational and cultural programs influences his or her decision to remain; therefore, retention requires a coordinated school-community effort” (p. 1). A school-community orientation can help new rural teachers overcome feelings of isolation, acquire a sense of community security, and develop professional competence.

**Student Support for Learning:** The CART Partnership is promoting a curriculum that is rigorous and demanding, and students will need to raise their expectations and better prepare themselves to meet the challenge of taking an AP course and passing with a score of 3 or better. A key strategy for implementing a successful rigorous curriculum includes the cultural responsiveness to recognize and nurture student strengths, not just understanding them through the lens of middle class white norms (Oakes, 1995). It will be important for the RTRs to critically examine their own beliefs and biases to meet the needs of their students.

**Action Research Teams:** Unique to the CART Partnership design will be the use of action research teams (Stringer, 2004). Residents will be organized into action research teams in each of the 15 host high schools to learn how to investigate, analyze and synthesize student data and information. Advanced Learning Partnerships, one of the professional development partners,

will train the Mentors and RTRs to organize and field the action research teams. Mentors, RTRs, faculty, and professional development providers will work side-by-side in the classrooms (Feiman-Nemser and Beasley, 1997) reflecting on the dynamics that occur during the process of teaching and learning.

**LEDRS Data System:** The action research cycle includes problem posing and data gathering. RTRs and their Mentors will be trained to use the Louisiana Education Data Repository System (LEDRS), a longitudinal data tracking system that will track RTRs and students they teach over the five years of the grant and beyond to measure program impact. Once the action research team develops its research plan, the team will play a crucial role in carrying out supportive yet challenging inquiry that nurtures emerging ideas and gives RTRs the courage to act on the findings. As participants engage in ongoing reflective conversations, lasting change is supported and the bridge between vision and reality is built.

**ULLC and ALP—Partners for Change:** The Urban Learning and Leadership Center (ULLC) and Advanced Learning Partnerships (ALP) will provide trainers and coaches who deliver professional development during the residency and the two-year induction program. The focus will be on assimilating the RTRs into the rural culture, teaching inclusion classes, improving assessment literacy, and incorporating Century 21 skills in the classroom. Developing a digital portfolio that RTRs populate with lessons and artifacts and a self-video of RTRs' teaching practices is value added to the induction program. These activities will give the RTRs experience in collecting impact evidence of their teaching and learning practices and reflect on the outcomes. The portfolios will introduce the RTRs to the application requirements to become National Board Certified (NBC) and put them on track to begin preparing for the rigorous application process. Through its *Louisiana Initiative* program, the state offers fee support and

other incentives to apply for NBC, and those teachers who become NBC receive a [REDACTED] annual salary supplement for ten years. Although Louisiana currently ranks 14<sup>th</sup> in the nation in the number of NBC teachers, there are only 62 NBC teachers of the 4418 teachers who work in the region. It is anticipated with the additional salary supplement coupled with support from CART that a high number of RTRs will consider applying when they are eligible after their third year of practice. LSUA CART faculty will assist interested RTRs in preparing for the test, making the video, and reviewing the application.

**Communication Tools that Build Community:** In addition to the above program components, the CART Partnership will tap into two communication tools to augment collaborations among participants and program staff; ooVoo® and Ning®. ooVoo, a free video chat and conferencing software ([www.oovoo.com](http://www.oovoo.com)) that enables up to six individuals to see and hear each other at the same time, offers video quality that is comparable to being face-to-face in the same room. Mentors, faculty members, residents, and the CART partners will be able to connect to each other and other colleagues in the program throughout the residency. Use of this powerful video conferencing software will allow small groups to collaborate on coursework, follow-up, and clinical supervision during the residency and induction periods. Ning is a social network that many universities are currently using to connect with their students. While this network has similar features as Facebook and others, Ning will allow each RTR, Mentor, faculty, etc., to construct their own personal Webpage and share information within their respective cohorts in a more cohesive manner. Both of these tools will assist in developing deeper connections among the project participants and personnel.

**g. Final One-month Summer Institute:** RTRs will complete master's degree coursework and licensure requirements and continue to refine their teaching skills to become successful teachers-

of-record working in their own classrooms. When they are awarded their degrees and certification status to teach, the partner districts will offer the RTRs three-year contracts.

**h. Mentor and induction program:** RTRs will be supported by a Mentor Teacher within the two-year induction plan that draws from the research-based California Formative Assessment System (CFAS) Mentor program. Thirty Mentors, two assigned to each of the 15 host high schools, will each Mentor a RTR as he or she co-teaches in the Mentor's classroom during the residency year. The Mentors will continue to serve as "critical friends" and coaches to the new teachers during their second induction year. Fifteen Mentors will be trained in the summer of 2010 to be prepared for mentoring the first cohort of 15 residents in September 2010. The second Cohort of 15 Mentors will be trained in the summer of 2011 to be prepared for Cohort Two residents. Fifteen of the Mentors will be mathematics teachers and 15 will be science teachers. Each host school will have one mathematics and one science Mentor. Mentors will receive a [REDACTED] per year stipend. The Mentors will be trained by Advanced Learning Partnerships (ALP) in the CFAS Mentor model. The CART Partnership will place great emphasis on the Mentor and induction project components. Mentoring will take place one-on-one in the Mentor's classroom. New teacher induction will be intense with a dedicated Mentor provided for each of the two induction years.

Upon graduation and licensure, even the best prepared teachers will struggle during the first year of teaching if not supported in the school environment, making induction critically important to the retention of new teachers - especially in rural settings (FERENCE, CLEMENT, SMITH, 2009). Darling-Hammonds (2003) stipulates that, "A number of studies have found that well-designed mentoring programs raise retention rates for new teachers by improving their attitudes, feelings of efficacy, and instructional skills" (p.11). The CART Partnership will provide the

residents with professional development interventions by Advanced Learning Partnerships (ALP) to address the affective side of teaching: knowing the students, motivating and managing them, reflecting on their practice, and actively engaging in the rural community. Mentor and induction components include:

- Rigorous Mentor selection based on qualities of an effective Mentor. District teachers selected as mentors must have an in-depth understanding of the content knowledge of their subject area and demonstrate evidence of outstanding teaching practices through interviews, lesson presentations, classroom observations and portfolios. Strong intra – and interpersonal skills, experience with adult learners, respect of peers, and exemplary pedagogical content knowledge are essential attributes of a CART Mentor.
- Ongoing professional development and support for Mentors. Advanced Learning Partnerships will present CFAS professional development to the CART Mentors during a five-day Mentor Summer Institute. The Mentors’ professional development will be held during the summer prior to welcoming an RTR into the classroom so they will be well prepared to begin the mentoring process. Modules in instructional mentoring, setting professional goals, coaching and observation strategies, analysis of student work, mentoring for English language learners, and mentoring for equity will be presented. The CART Mentors will also receive ongoing coaching by ALP trainers in their classrooms.

## **2. Competitive Preference Priorities**

### CART Design Component #2 – Student Achievement and Continuous Program Improvement

#### **Competitive Preference Priority #1 - Student Achievement and Continuous Program Improvement.**

**a. Data-driven Decision Making:** The CART Partnership will use the Louisiana Education Data Repository System (LEDRS) to track the achievement of the high school students participating in the program. After a decade of commitment to building a comprehensive data system to evaluate teacher quality, Louisiana now comes closest of all the states to having a statewide model that can quickly capture and report the effectiveness of teacher preparation programs and in-service intervention programs relative to student performance.

This success is due in no small part to the sustained commitment of policymakers to improving teacher quality in Louisiana. Over the past decade Louisiana has worked diligently to create a P-16 system focused on recruiting, preparing, supporting, and retaining effective teachers with a goal toward building an integrated teacher quality database that enables all stakeholders to determine a program's effectiveness in improving student performance.

CART's partnership with the Louisiana Department of Education allows full access to the state's extensive data repository. The attached letter from State Superintendent Paul Pastorek reinforces the state's commitment to this effort, "I pledge our department's resources to collaborate with the partnership on one of the core requisites of this grant—data collection. Through our nationally-recognized Louisiana Education Data Repository System, we will provide the extensive data required for the project. This will be critical to allow the partnership to define and adjust the training and activities provided for student learning and educator support throughout the five-year period."

Perhaps the most innovative and valuable contribution of LEDRS lies in the ability of CART RTRs and Mentor Teachers to access and use the LEDRS system themselves. This type of full access to student level performance data gives new meaning to making decisions based on

data. The system allows manipulation by subgroups and teachers are able to sort their students for comparisons of student performance across a variety of indicators.

Advanced Learning Partnerships will train the RTRs, Mentors and school leaders on using LEDRS to drive the CART Partnership. The RTRs will be organized into action research teams where they will learn to manipulate student data to differentiate instruction. RTRs and their Mentors will also be trained by Advanced Learning Partnerships to implement formative and summative assessments that ensure RTRs understand how to develop and use rubrics to address each student's learning style and progress toward content mastery. The CART Partnership Management Team will work closely with the state accountability department to optimize LEDRS for the CART Partnership.

#### CART Design Component #3 – School Leadership

#### **Competitive Priority #2 – Partnership Grants for the Development of Leadership Programs.**

**b. CART Leadership Initiative:** The leadership development model will increase STEM student achievement by improving the capacity to a) create a culture of high expectations and college awareness/readiness for all students; b) effectively use their existing professional learning communities to target improved STEM teaching and learning; c) monitor and coach teachers in using best teaching strategies; and c) support Mentor and CART teachers during the induction process.

School leadership plays a significant role in improving student performance (Leithwood, et al., 2004), and the decisions that are made carry enormous responsibility and impact. CART's efforts to improve leadership capacity are built upon a solid foundation developed within the nine districts over the past two years by The Rapides Foundation (TRF), in collaboration with the

Urban Learning and Leadership Center (ULLC). The Foundation learned while working with schools that true reform would not take place system-wide unless the district and school leadership were committed and involved in the process of change. TRF began its leadership program with superintendents, district level representatives, principals and other school personnel identified by the districts.

The difference between the CART initiative and that of the Foundation's, is that CART will build a collaborative community of learners targeting the 15 host RTR schools. The outcomes are to a) create a culture of high expectations and college awareness/readiness for all students; b) effectively use the schools' existing professional learning communities to improve STEM teaching and learning; c) monitor and coach teachers in using best teaching strategies; and d) support Mentor and CART teachers during the induction process.

It will implement a three-tier systems approach to leadership development targeting these schools with the following components: 1) emerging leaders to begin early in teachers' careers to build the leadership capacity and understanding needed for leading in the 21<sup>st</sup> century; 2) school leadership teams at the host schools to encourage collaborative leadership and professional learning communities; and 3) district level leadership teams with representation from each district to develop district-level structures that support the RTRs. This approach involves the entire system in CART activities and will enhance the awareness of the critical need for continued professional development and quality induction programs. Increased support for institutional change in new teacher induction policies is the ultimate outcome for these interventions.

The program also reflects the "growing our own" model, particularly with the addition of the emerging leader and school team leadership components. Beginning at the teacher-level will

create a well-informed pipeline of individuals who know the rural context and culture and are better prepared to take the reins and move the districts toward continual improved student achievement.

While the Urban Learning and Leadership Center (ULLC) will continue to work with the superintendent and principal leadership program under TRF, it will extend its reach to implement the three-tiered CART Leadership Initiative within the host schools. In addition to working with TRF, ULLC has a stellar track record working with school leadership training programs in 21 districts in nine states. The ULLC facilitators have already established themselves within the region as knowledgeable, effective presenters, and are trusted and well respected by the CART superintendents and district staff. The facilitators are highly effective school leaders and bring a wealth of experiences to their presentations and one-on-one mentoring sessions. Through their work over the past two years for TRF, they have an understanding of the unique challenges faced by leadership in the districts, and can begin immediately to address the needs. No time will be lost building rapport or learning about the area.

The CART Leadership Initiative's three-tiered leadership training is designed to raise student achievement and create a supportive culture for change within the targeted districts. The program will promote the development of strong leadership skills to 1) create and sustain data-driven learning communities; 2) provide a climate conducive to ongoing collaboration and professional development for teachers; 3) use data to evaluate teacher instruction and drive teacher and student learning in an "Assessment for Learning" classroom (Black and Wiliam, 1998); 4) effectively manage resources and school time, and 5) engage parents and the community to invest them in their local schools.

The leadership development program will also include the following on how to:

- Manage resources and school time to improve student academic achievement and ensure a safe school environment;
- Engage parents, community members, the district, businesses, and other community leaders, to leverage additional resources to improve student academic achievement;
- Support data teams and use of LEDRS; and
- Create conditions for success of the residency program.

**c. Phases I and II—Emerging Leaders—Providing the Foundation for Leading:** Leadership training will be offered to 36 interested teacher-leaders (two cohorts of 18) who are viable candidates for school or district level leadership positions. This pool of teacher-leaders will form a cadre of informed aspiring principals and leaders who are well versed in school administration and have the potential to become outstanding school administrators.

Phases I and II: Emerging Leaders—Providing the Foundation for Leading		
<b>Two Cohorts</b> <b>36 Participants</b> <b>Begin Years 1 &amp; 3</b>	<b><i>Yrs. 1&amp;3: 56 Hours</i></b> <b><i>(Eight 7-hour Sessions)</i></b> <b><i>Yrs. 2&amp;4: Project-Based</i></b> <b><i>(Four 7-hour Sessions)</i></b>	<b><i>Content Base:</i></b> A specialized leadership training series for teacher-leaders who are interested in pursuing advanced degrees and licensure in educational administration.
<b>Vision:</b> The “grow our own” premise within the system attracts high quality, interested teacher-leaders into administration who have the capacity to fill leadership roles in the future.		
<ul style="list-style-type: none"> <li>• Emerging Leaders must be recommended by their respective districts to participate in the program.</li> <li>• During the first year of each of the two cohorts, teacher-leaders will attend 56 hours (eight 7-hour sessions) of professional development that includes administrator licensure, advanced degrees, school culture, instructional leadership, etc., to help them become familiar with the duties and expectations of a principal position.</li> <li>• Year one culminates in developing a project proposal based on the identified needs of their school and district. The proposal must be approved by the district leadership and the ULLC facilitator.</li> <li>• Year two involves the <i>Emerging Leaders</i> implementing their projects and participating in quarterly networking sessions to share their experiences and reflect on the successes and challenges. Participants will receive guidance from ULLC facilitators and reflect on the leadership implications of the work.</li> <li>• At the conclusion of the second year, each participant will deliver a formal presentation to his/her respective cohort. These experiences will provide the</li> </ul>		

Emerging Leaders opportunities to showcase their leadership skills and receive feedback from their peers.

**Table I**

**d. Phase I—School Leadership Teams—Providing the Foundation for Reform:** Each RTR Host School will receive two site visits by ULLC staff prior to implementation during the 2010-11 academic year. These visits provide trainers information about the existing culture of each school, readiness of the school to support the RTRs, and readiness for entry into Tier I of the leadership series.

ULLC staff will conduct structured interviews with school administrators and teacher leaders, collect data on current student performance, attend faculty and school leadership team meetings, and participate in classroom walk-throughs. Based on the assessment results, ULLC facilitators will make modifications to the leadership training which are critical to meet the unique needs of the school sites and enable the cultural shifts necessary to support and nurture the RTRs.

The content for the School Leadership component fully integrates current research and best practices and is designed to help develop distributed leadership cultures and foster high functioning professional learning communities within the schools. Table 2 provides an overview of the schedule and curriculum that will be presented.

Phase I: School Leadership Teams—Providing the Foundation for Reform		
<i>Teams (7-10 individuals) from each Host School</i>	<i>09/10-08/11 56 Hours (Eight 7-hour Sessions)</i>	<i>Content Base:</i> Interstate School Leaders Licensure (ISLLC) Standards and the Louisiana Standards for School Principals
<b>Vision:</b> The principal and the Leadership Team engage the school community in developing and maintaining a student-centered vision for education that forms the basis for school goals and guides the preparation of students as effective, lifelong learners in a pluralistic society.		
<ul style="list-style-type: none"> <li>• <b>Teaching and Learning:</b> The principal and the Leadership Team use knowledge of teaching and learning in working collaboratively with the faculty and staff to</li> </ul>		

implement effective and innovative teaching practices that engage students in meaningful and challenging learning experiences.

- **School Management:** The principal and the Leadership Team promote the success of all students by ensuring management of the organization, operations, and resources for a safe and orderly learning environment.
- **School Improvement:** The principal and the Leadership Team work with the school community to review data from multiple sources to establish challenging standards, monitor progress, and foster the continuous growth of all students.
- **Professional Development:** The principal and the Leadership Team work collaboratively with the school faculty and staff to plan and implement professional development activities that promote both individual and organizational growth and lead to improved teaching and learning.
- **School Community Relations:** The principal and the Leadership Team use an understanding of the culture of the community to create and sustain mutually supportive school-community relations.
- **Professional Ethics:** The principal demonstrates honesty, integrity, and fairness to guide school programs in an ethical manner.

**Table 2**

**e. Phase II—Changing the Paradigm through Coaching:** Moving from theory to practice is greatly enhanced when leadership teams can overcome the traditional isolationism of school structures by entering into reflective, collaborative relationships with a coach/mentor who is focused on their personal and professional growth. ULLC coaches will provide this support around the leadership modules studied in the classroom seminars.

Phase II: School Leadership Teams—Changing the Paradigm through Coaching		
<i>Initial Continued</i>	<i>Teams 09/11-08/12 Six Visits Per School</i>	<i>Content Base:</i> Implementing change in schools and developing structures that nurture and support new teachers and reform-based teaching strategies.
<p><b>ULLC Coaches will:</b></p> <ul style="list-style-type: none"> <li>• Conduct a school specific needs assessment based on data analysis, observations, survey data, and structured interviews.</li> <li>• Assist school administrators and the school Leadership Team in the development, implementation, and monitoring of an effective improvement plan (based on the aforementioned needs assessment) to increase student achievement based on state and local measures.</li> <li>• Conduct walk-throughs with school staff to ensure fidelity of implementation of the school plan, including the implementation of STEM strategies.</li> </ul>		

- Mentor the school principal, administrators, and building Leadership Team members in areas identified for support of the CART residents and cultural growth and/or renewal.

**Table 3**

**f. Phase I—Central Office Leadership Teams—Building Top-Down Support Structures:**

An advanced leadership series which will not only provide the top-down structures to support the efforts of the RTRs within the schools, it will also serve as an onramp for central-office personnel who are interested in becoming future superintendents. ULLC facilitators will present a series of four leadership sessions to central office teams.

As the demands for academic accountability in this era of high stakes testing have increased, the pressure on schools and districts to perform on an externally developed measure has created new roles and responsibilities for both district and school leadership. The purpose of this tier of the ULLC series is to clarify these new roles and responsibilities for the central-office team and to develop new operating protocols to increase the individual and corporate effectiveness of the team members.

<b>Phase I: Central Office Leadership Teams—Building Top-Down Support Structures</b>		
<i>District Leadership Teams</i>	<i>09/10-08/11 4 Sessions</i>	<i>Content Base:</i> Roles and Responsibilities of District Leaders
<b>Vision:</b> The district leadership team will influence policies for reform and develop system-wide induction practices that nurture and support new teachers.		
<b>Key focus areas:</b>		
<ul style="list-style-type: none"> <li>• The Central Office Role in Leading School Reform</li> <li>• An Analysis of Team Effectiveness</li> <li>• Interpersonal Skills for Team Growth</li> <li>• Strategies for Effective Team Decision-Making</li> <li>• Pulling It All Together (Avoiding Silos)</li> </ul>		

**Table 4**

## CART Design #4 – Rigorous Selection Process

### **Competitive Priority # 3 – Rigorous Selection Process**

The CART Partnership admissions process consists of a traditional written application (including an essay and college transcript), an initial screening interview for qualified candidates that will be conducted by a conference call or through ooVoo®, and a novel approach to identifying an individual’s personality traits, on demand writing abilities, and other attributes through the use of various performance-based assessments. Applications will be reviewed by the CART Project Management Team to ensure they meet the rigorous standards of admission, and finalists will receive an invitation to attend an interview session. Applicants will be informed prior to attending the interview that they will be expected to participate in performance tasks that require them to teach a science or mathematics concept of their choosing to the interview team, write a short essay at the interview, and participate in some problem solving activities.

Applicants who successfully pass the document screening will participate in the multi-stage interview process to ensure the highest quality candidates are chosen. Interview teams will be comprised of the CART Management Team, principals, teacher-leaders, higher education faculty, and human resource representatives from the nine districts. Team members will be seeking applicants who see themselves as lifelong learners, display an ability to think critically and solve problems, demonstrate good listening skills, articulate a personal theory of teaching or leadership, and exhibit persistence and follow-through.

The interview process will take place in a centrally located district host high school and consists of a set of performance activities such as a group problem-solving activity, a mini-teaching activity, a reflective writing activity, and individual interviews. The applicants will rotate through the activities while they are waiting for their interviews, and immediately

afterward if all stations were not visited. CART team members will circulate throughout the activity rotations to observe behaviors, listen to conversations and determine how the applicants communicate and interact with others in an informal setting.

Screening and selecting potential candidates is a carefully structured process with an observation protocol for the time the applicants are participating in the activities, and an interview protocol designed to identify attributes and establish criteria for the selection of applicants based on their 1) strong content knowledge or contributions to their subject area; 2) exceptional verbal and written communication skills; 3) interest and commitment to teaching and helping students learn; 4) reasons for applying for the position; 5) general personality traits, attitudes and aptitude for working with others; 6) professionalism and the manner in which he/she speaks to and relates to others; 7) flexibility in thinking and solving problems; and 8) ability to work as an effective team member. Minimally, applicants must have a Bachelor of Arts or Science degree, pass the PRAXIS I and II, and satisfy the following requirements:

- a) Recent graduate of an approved undergraduate program with at least a B grade point average or a mid-career professional from other occupations (military personnel, accountant, engineer, etc.);
- b) Willing to relocate to a rural community and commit to working in one of the nine district host high schools for a minimum of three years following the residency program;
- c) Able to make the time commitment for immersion in an intense year-long learning experience that includes some nights and weekends, academic coursework, research, reports, and field-based projects.

Participant applications will be vetted throughout the districts for the express purpose of matching RTRs as appropriately as possible with a host district. It is anticipated that some

districts will be able to recruit their own RTRs with the assistance of the supporting partners. The CART Partnership will not discriminate with regard to race, color, origin, gender, political affiliation, disability, sexual orientation, or religion.

**a. Participation Incentives:** The CART Partnership’s financial structure is intended to provide an affordable, high-quality pathway into teaching. There are three core components to the financial package:

- **Stipend.** Teacher Residents receive [REDACTED] for the resident year, plus [REDACTED] in each induction year.
- **Tuition.** Teacher residents receive full tuition with room and board (Louisiana residents [REDACTED], non-Louisiana residents [REDACTED]).

#### CART Design Component #5 – Broad-based Partners

**Competitive Priority #4 – Broad-based Partners.** The combination of nine rural districts, two foundations, the state’s flagship university and its sister university, the state department of education and national professional development providers who have long term involvement in the region have developed a partnership that defies the odds. The diversity of this group of partners is its strength. Each brings a different focus and flavor to the CART Partnership.

**a. Nine Rural Districts:** Collectively, the nine districts have formed a strong network of collaborative partners each working toward the same goal of improving student learning and achievement. They have been working together as a team for over 10 years with TRF and have learned the latest strategies and techniques to improve student learning from nationally-known authors and presenters. The region has made much progress since the first school grants were distributed by TRF. They are committed to continuous improvement and are up for the challenge to address STEM areas through The CART Partnership. The synergism created within the

districts as a result of the new STEM initiative begun by TRF, will catalyze The CART Partnership and move both initiatives forward.

**b. The Rapides Foundation/The Orchard Foundation:** Certainly, The Rapides Foundation's leadership and commitment to working with schools and other community stakeholders to enhance educational opportunities for each child in Cenla is noteworthy. The Foundation began awarding education grants to schools in 1998. Its most recent Systemic Initiative in Education evolved from individual, school-level grants totaling close to [REDACTED] to district-level grants totaling [REDACTED]. The Foundation has focused on improving classroom instruction in key areas such as mathematics and literacy, as well as building leadership skills in schools and central offices.

TRF had the foresight to recognize that the schools and districts needed help in making significant structural changes within the system. The Foundation assembled a team of former superintendents and highly qualified educators who have distinguished records of success at the national level to work directly with parish superintendents and TRF district coordinators as advisors. The world of education research and best practices was introduced to these small rural education communities, leaving an indelible mark. Parish superintendents interviewed in April 2009 by The Orchard Foundation as part of the needs assessment for the Teacher Quality Partnership grant were most appreciative of the support and interventions TRF have provided their districts. These TRF-sponsored teams have developed infrastructures for change that will be key to the full implementation and sustainability of the CART Partnership.

TRF also focused on building professional learning communities for sustainability of reform efforts. This intervention has brought more change to the district than any other initiative. TRF evaluation of the Systemic Initiative has underscored the benefit of cross

collaborations within the districts and across the region. School and district personnel alike report that the type of teacher-talk about student work, attention to data disaggregation and data analyses are unprecedented and have helped them target weaknesses and improve student learning. Even with improvement in student achievement, there is still much work to be done. Too many students are being left behind in the region and not living up to their full potentials.

Over the next five years (2009-2014) the Foundation will invest [REDACTED] into increasing the number of students who are ready for advanced mathematics and science. Known as the STEM/CTE Initiative, districts will receive one-year planning grants in 2009 to develop their STEM/CTE design. These planning grants will enable the CART Partnership staff to work side-by-side with district staff to weave together a powerful district and CART Partnership program. TRF CEO Joseph Rosier and TOF Interim Director, Vicki Burns, will provide oversight and coordination of the CART Partnership throughout the residency and induction years.

**c. Louisiana Department of Education (LDE):** It is a coup to have this partner on board with the partnership. Having the LDE as a full partner in the collaborative not only provides the necessary student level data that are matched to the student's teachers, it also enhances the opportunities to drive educational reform policies. Superintendent Pastorek's strong letter of support for this initiative is indicative of the seriousness the LDE is taking this commitment.

**d. Louisiana State University Alexandria:** LSUA, located in the heart of the CART Partnership region, is a four-year university which offers both associate and baccalaureate degrees to its 2600 students. It has served the region for over 50 years and built a network of trust across the districts. The university has been growing rapidly and is continually expanding its scope of services to offer a wide variety of academic courses to the residents in its service area. It is the

fifth in the state in the number of students taking Dual Enrollment coursework in neighboring high schools under the oversight of LSUA. The university leadership is committed to the CART Partnership. Chancellor Dr. David Manuel, and the Chairs of the Departments of Education and Mathematics and Physical Sciences, Drs. Judy Rundell and Thomas Awtry, respectively, have pledged to work closely with the CART Partnership to provide “on the ground” support throughout the program. Two faculty members, one science and one mathematics, will work under their oversight. These faculty will be embedded within the districts to support all phases of the implementation.

**e. Louisiana State University:** LSU is a Research 1 university that was established as a land grant university in the mid 1800s. Serving over 26,000 students, LSU offers baccalaureate and doctoral degrees, and includes ten senior colleges and schools, with specialized centers and institutes. As a land grant university, it has a vested interest and a responsibility to provide community services and outreach programs. As such, LSU is well positioned to serve as the lead institution in the CART Partnership. Drs. Gary Byerly and Frank Neubrandner have long term experience working with schools and districts. Neubrandner serves on a state team with a mission to bring high quality AP courses to Louisiana schools through distance learning. The weakness of the program is a lack of qualified teachers at the school sites to assist the students taking the virtual courses. The CART Partnership will fill that void in Cenla, and help build capacity across the state.

**f. Urban Learning and Leadership Center (ULLC) and Advanced Learning Partnerships (ALP):** These two partners work closely together to offer personalized school improvement services to schools and districts and are dedicated to helping schools develop and implement improvement plans. They are nationally known and have earned a solid reputation in school

reform. Their service to TRF/TOF has been valuable in helping build leadership capacity from the school to the district levels.

**(ii). The likely impact of the services to be provided by the proposed project on the intended recipients of those services.**

**a. Leadership Development:** The primary impact of CART will be improved student achievement, particularly in mathematics and the sciences. Developing leadership from the teacher-level up through the ranks to the superintendents will build capacity for change within the districts. The continued involvement of TRF with the Superintendent and Principal Leadership programs, the new emphasis on high quality instruction that will infuse AP and DE quality instruction throughout the region via the RTR, and the additional Emerging Leader, School Leadership Team and Central Office Leadership Team initiatives will set the stage for dramatic improvement in student learning and achievement across the region.

**b. 60 AP/DE Teachers:** An influx of 60 new teachers with a Masters in Natural Science in mathematics or science will enable the districts to dramatically increase their district's ability to deliver advanced mathematics and science AP and Dual Enrollment courses. Currently, there are only 8 teachers among 4418 who can deliver AP mathematics and science courses and only 25 who meet Southern Association of Schools and Colleges (SACS) requirements to teach Dual Enrollment courses necessary to support district ability to strategically improve their capability to sustain The Rapides Foundation STEM/CTE Initiative well beyond 2015.

**c. Data-Driven Decision Making:** Through TRF Systemic Initiative in Education, these nine districts have been studied by both The Evaluation Center at Western Michigan and The Cain Center at LSU for the past four years. In addition to providing evidence of the impact of the initiative relative to student achievement scores, the evaluation includes on-site school visits and

classroom observations which have shed light on classroom practices. These data have informed the districts and identified the strengths and weaknesses at the classroom level. Armed with this information, and coupled with detailed analyses of student achievement, the region is now poised to embark on a new path that is more research-oriented and data-driven.

**d. Pedagogical Content Knowledge:** In addition, the 60 RTRs will have the pedagogical content knowledge and leadership skills to set high expectations for their students and the capabilities to deliver rigorous mathematics and science content to diverse populations. Critical to such an outcome is the ability of the new teacher hired by the district to alter the relationship between the student and the teacher and the content (Elmore, 2009). The catalyst for such an alteration is Student Assessment for Learning (Black, 1998). Assessment for Learning is now embedded in National Mathematics and Science Standards. Empirical evidence documents student effect size of .04 to .07 with particularly high gains for low achievers and special education students (Black & Wiliam, 1998). Having the ability to identify the gaps in understanding and pinpoint the weaknesses to address the deficiencies will be particular strengths of the RTRs.

**(iii). The extent to which the training or professional development services to be provided by the proposed project are of sufficient quality, intensity, and duration to lead to improvements in practice among recipients of those services.**

**a. Multi-Year RTR Induction:** The National Commission on Mathematics and Science Teaching for the 21<sup>st</sup> Century (2000), among others, is calling for higher-quality teaching, higher teacher retention rates, and improved student achievement. We are simply losing too many teachers from the profession and the support of new teachers through a supportive induction process is critical. New teachers will receive a two-year induction, continue participation in their

action research teams, and continue to receive training in Century 21 skills and inclusion strategies. Finally, new teachers will be encouraged to seek National Board Certification (NBC). They will be self-videoing, using a digital portfolio, and reflecting with their Mentors, all of the skills and activities needed for NBC. Mentors will continue to be coached by ALP trainers during the RTRs' induction.

The CART Partnership will deliver professional development for the RTRs during their residency and over the two-year induction period. LSUA faculty will attend the professional development so they are able to reinforce the concepts and assist in all phases of the induction process. They will be available to the RTRs throughout the program for follow-up and assistance as needed. The RTRs will be encouraged to communicate often with each other through ooVoo, Ning and The Electronic Village as described in Table 6 below. The professional development by Advanced Learning Partnerships will be delivered in three phases as detailed in Tables 5, 6 and 7.

Phase I—Initial Summer Institute RTR Training
<ul style="list-style-type: none"> <li>• Demonstrated Need and Pedagogical Foundation for Balanced Assessment Literacy</li> <li>• Integration of Goal Setting into the 21<sup>st</sup> Century Classroom</li> <li>• Integration of Identification of Quality into the 21<sup>st</sup> Century Classroom</li> <li>• Integration of Forward Feedback into the 21<sup>st</sup> Century Classroom</li> <li>• Putting It All Together: A Practical, Comprehensive Balanced Assessment Plan</li> </ul> <p style="text-align: right;"><b>Table 5</b></p>

Phase II—Site-Based Teacher Residency Training and Support
<p><b>Fifty full days per Cohort:</b></p> <ul style="list-style-type: none"> <li>• Modeling of AFL Competencies – Classroom demonstrations of various Goal Setting, Identifying Quality and Forward Feedback strategies that are customized to the unique needs and subject matter of RTR classrooms.</li> <li>• Individual and Small Group Coaching Sessions – Additional guidance/ resources on AFL Competencies. Advanced balanced assessment practices distributed on a case-by-case basis.</li> </ul>

- Formal Measurement of Pedagogical Growth – Analysis of balanced assessment portfolios in accordance with the AFL Developmental Rubric will provide RTR with valid metrics that will allow them to chart and evaluate student learning as well as their own professional growth.
- Foundations for National Board Certification – With the Instructional Development Index, a validated metric for the customized professional development pathways of each RTR (Hattie & Bond), teachers will learn and implement best practices that they will eventually integrate into National Board Certification in their fourth year as educators.
- Digital Support Between Visits – A RTR Electronic Village will be created by Advanced Learning Partnerships to provide virtual, timely support through video conferencing, blogging, forums and email to give the RTR a cloak of training and support on balanced assessment throughout the entire academic year.

**Table 6**

### Phase III—Creation and Implementation of 21<sup>st</sup> Century Skills Sequence

**Eight (8) full days for each cohort based on the following framework:**

- Introduction to 21<sup>st</sup> Century Skills – Over the course of a 3-day 21<sup>st</sup> Century Skills Institute, members of the CART Partnership Project Management Team, Project Advisory Board, Resident Action Research Teams, School Leadership Teams as well as School-Level Teachers and Leaders are trained on the fundamentals of 21<sup>st</sup> Century Literacy.
- Facilitation of 21<sup>st</sup> Century Skills Action Research Teams (5 days) – Members from the CART Partnership Project Management Team, Project Advisory Board, Residency Team, School Leadership Team as well as School-Level Teachers and Leaders are equally distributed into three (3) 21<sup>st</sup> Century Skills Action Research Teams.
- In the span of a 5-Day Conference teams will meet to co-create a comprehensive 21<sup>st</sup> Century Skills Sequence.
- Creation of 21<sup>st</sup> Century Skills Curricular Framework (300 hours) – Using the 21<sup>st</sup> Century Skills Sequence created by members of the CART Partnership, all curricular, assessment and professional development modules are connected to this overarching sequence of standards that promote the development of rigorous, relevant and respectful learning experiences for students and teachers in each classroom and school. This curricular framework will serve as a catalyst for high-level instruction by teacher Mentors and residents throughout the duration of the grant.

**Table 7**

**b. Mentor Teacher Training: Preparing to Become a Mentor Teacher:** Table 8 outlines the professional development Mentor Teachers will receive prior to assuming the role of RTR

Mentor. The LSUA faculty will attend the training sessions so they will be well versed in the Mentor expectations and can provide appropriate follow-up assistance to the Mentors as they transition into their new positions. Mentors will be encouraged to form a learning community among themselves during the initial training and maintain contact throughout the academic year via The Electronic Village to discuss the challenges they are facing, share successful mentoring strategies, and support each other as they mature into their roles. The TOF and LSUA faculty will serve key roles in organizing a fall and spring Saturday workshop for mentors to meet face-to-face and share their progress with each other.

### Mentor Training: Preparing to Become a Mentor Teacher

**The 30 Mentors will be trained by ALP in the CFAS Mentor model for five (5) full days in June 2010 as well as thirty (30) full days throughout each academic year, based on the following framework:**

- RTR and Mentor Conference – A five (5) day professional development initiative that provides foundational elements of Assessment for Learning, 21<sup>st</sup> Century Skills instruction and professional development leadership.
- Individual and Small Group Coaching Sessions – Additional guidance and resources will be provided to Mentors to ensure the provision of high-quality, responsive support to their RTR.
- Formal Measurement of Pedagogical Growth – Analysis of teacher resident Mentor portfolios in accordance with the Instructional Development Index will provide teacher resident Mentors with valid metrics that will allow them to chart and evaluate teacher resident progress as well as their own professional growth.
- Foundations for National Board Certification – With the Instructional Development Index as the metric for the customized professional development pathways, Mentors will learn and implement best practices that they will eventually integrate into National Board Certification. Both Mentors and residents will be encouraged to seek certification.
- Digital Support Between Visits – A Cenla RTR Electronic Village will be created by Advanced Learning Partnerships to provide virtual, timely support through video conferencing, blogging, forums and email to give the teacher resident Mentor a cloak of training and support throughout the entire academic year.

**Table 8**

**(iv). The extent to which the services provided by the proposed project involve the collaboration of appropriate partners for maximizing the effectiveness of project services.**

The Orchard Foundation, in collaboration with the CART Principal Investigator, Gary Byerly, Associate Dean for Student Services in Basic Sciences and Director of the Masters in Natural Science graduate program, will provide the coordination necessary for all partners to be integrally involved in the program. The Foundation will manage all aspects of the project as it relates to schools and districts. They will work with the two universities, TRF education advisors, the TRF-supported district coordinators, professional development providers, superintendents and district office staff to coordinate communications, deliverables, and logistics in the schools. LSUA CART faculty, working under the oversight of TOF, and with direction from the Chancellor and Chairs of the Departments of Mathematics and Physical Sciences and Education, will lead the site-based clinical assistance and supervision for the RTRs during the academic year. An Advisory Board of community stakeholders will be established to inform and engage the Cenla community. LSU's Gordon A. Cain Center, Education Division, will work with all partners to provide a comprehensive program evaluation to drive the CART Partnership's activities and meet each of the program reporting requirements.

Planning for the CART Partnership will be conducted on two distinct, yet parallel tracks. **Track One:** Since the TQP grant is estimated to be awarded in October/November 2009, the first six months will be devoted to planning all aspects of the program, including conducting a community needs assessment, validating baseline data, planning and conducting a marketing campaign to identify and recruit the first cohort of residents, identifying and recruiting the first cohort of 15 residents, identifying and training the Mentors and the school and district leadership

teams and establishing data systems. In June 2010, the first 15 RTRs in Cohort I will enter the initial Summer Institute graduate program and begin the one-year residency.

**Track Two:** TRF issued a Request for Proposals to the nine districts to support planning for the next five years of the STEM/CTE Initiative. In May 2009 the planning grants totaling [REDACTED] were awarded to the nine districts. An additional [REDACTED] from TRF will be awarded to ULLC to conduct the school and district leadership training necessary to support the planning grants and the CART Partnership.

The value of this parallel planning among the partners cannot be underestimated as the two initiatives will work together seamlessly and in tandem to support a strong implementation of the five-year CART Partnership. The district's leadership teams will be well prepared to create the conditions for success for the RTRs.

## **b. Quality of the Project Evaluation**

**(i). The extent to which the methods of evaluation include the use of objective performance measures that are clearly related to the intended outcomes of the project and that will produce quantitative and qualitative data to the extent possible**

A robust and rigorous impact evaluation will be conducted by an evaluator independent of the Principal Investigator and CART administration line of authority. The LSU Gordon A. Cain Center for STEM Literacy, Evaluation Division (CC-ED), under the direction of Brenda Nixon (see CV attached), and in collaboration with the CART Partnership, has developed the evaluation plan and will conduct the overall program evaluation. The Cain Center has a history of program evaluations for organizations/agencies that include the National Science Foundation, Howard Hughes Medical Institute, Audubon Nature Center, Arkansas High Education Agency, Louisiana Department of Education, and The Rapides Foundation.

Dr. Nixon and Cain Center staff have worked closely with the partners to design an evaluation that systematically captures, analyzes and reports data to monitor progress and ensure quality control. Since ongoing evaluation of the project is essential and supports the overall program, significant resources have been allocated to implement a comprehensive plan that will continually monitor program benchmarks and provide intermediate feedback. The plan includes qualitative and quantitative indicators and formative and summative evaluation components that address the expected outcomes within context. Formative evaluation will provide valuable information to make mid-course adjustments as needed, while summative evaluation will draw conclusions relative to incremental and overall program impact. The university evaluation team members are keenly aware of the importance of measuring the progress of each GPRA measure and program objective so that targeted interventions can be identified and activated quickly as needs arise. Consequently, formative evaluation findings will be reported quarterly to the program administrators throughout program implementation.

The evaluation plan is comprehensive and designed to provide programmatic impact data for each of the program's three primary goals and accompanying objectives and the three GPRA performance measures, the **efficiency measure** and the **two short-term performance measures**: (a) The percentage of RTR completers who attain a master's degree and teacher certification within two years; (b) The percentage of RTR teachers who are retained in teaching in the partner high-need LEA three years after initial employment; (c) Improved scaled scores for initial state certification or licensure of RTR teachers; (d) The cost of a successful outcome where success is defined as retention of the RTR teachers in the partner high-need LEA three years after their initial employment; and (e) short-term measures 1) The percentage of RTR teachers who did not graduate in the previous reporting period, and who persisted in the

postsecondary program in the current reporting period; and 2) The percentage of RTR teachers who are retained in teaching in the partner high-need LEA program one year after initial employment.

**CART's Program Objectives:** Goal One: Improve student achievement by increasing the number of highly effective/highly qualified high school teachers who teach Advanced Placement (AP) and Dual Enrollment (DE) mathematics and science courses as measured by their students' scores on criterion- and norm-referenced tests. Objective 1.1: Establish a rigorous one-year, site-based Master of Natural Science residency program created for the CART Rural Teacher Residents (RTRs) to begin summer 2010. Objective 1.2: Recruit 60 high quality teachers over the five years of the project who are recent science, technology, engineering and mathematics (STEM) graduates or mid-career changers and commit to teaching a minimum of three years within the partner districts. Objective 1.3: Increase the number of students who achieve "3" or better on AP mathematics and science tests by 25%. Objective 1.4: Increase the number of students by 50% who improve 20 percentage points on the CART posttest given to all AP students to measure growth. Goal Two: Create a teacher induction program model that retains 85% of the RTRs in the CART program during their first three years of service. Objective 2.1: Recruit, select and provide professional development to 30 successful Mentor Teachers who have the content knowledge and expertise to model best teaching and classroom management practices as measured by content background and classroom observations. Objective 2.2: Develop a three-tiered leadership program for central office leadership teams and CART host school leadership teams and emerging leaders to build internal capacity to retain 85% of the RTRs.

**Methodology:** The evaluation team will employ the CIPP model developed by Daniel Stufflebeam, et al., (2002) to guide the processes and establish the overall structure to collect meaningful data for the evaluation indicators. Extensively used in program evaluation, this mixed methods model will serve as the framework for designing the work plan as well as the development of the data collection instruments. The CIPP model will address the context, inputs, processes, impacts, and effectiveness of the CART Partnership program. Correlating the CIPP model to the expectations of the various initiatives will establish a sound, thorough foundation specific to program tenets. The proposed design and instruments will also consider unanticipated outcomes which often surface during evaluation procedures. The CIPP Model stresses the importance of examining the inputs and processes, not only the products or outcomes. Fully understanding the easily quantifiable outcomes, e.g., reported numbers of RTR teachers who successfully become teachers of record, for example, depends upon knowing and understanding the inputs, or qualitative data, e.g., the implementation of the program and what factors either supported or hindered an RTR from reaching this performance measure. This “behind the quantitative data” information is critical to successful implementation of innovative interventions as they inform future efforts so interventions can be identified and put into practice.

**(ii). The extent to which the methods of evaluation address the evaluation requirements in section 204 (a) of the HEA.**

Data management for the CART Partnership will reside within the Evaluation Division of the LSU Cain Center for STEM Literacy. The Cain Center will fully cooperate with the TQP evaluator and comply with all program reporting requirements. CART data management systems will be developed for the express purpose of tracking and measuring each of the evaluation requirements in section 204 (a) of the HEA listed below. The system will take full advantage of

current electronic methods of data collection using both Excel®-based and Web-based models of collection, analyses and reporting. A variety of data sources will be tapped to provide the essential information required to gauge the efficacy of the CART program, as well as those sources that will capture both intended and unintended outcomes of the program and the reasons for those outcomes. The system will contain all available demographics pertaining to the human subjects, schools and districts to provide a clear understanding of the environment and culture.

The Louisiana Department of Education LEDRS system will provide information for all indicators pertaining to achievement of CART residents and their students. Full access has been granted to continuously monitor the progress of the RTRs matched to their students' achievement as described in the Department's letter of support. Comparison data will also be collected relative to the Mentors' students as well to measure impact of the CART interventions. Indicators relative to descriptive data, such as teacher retention, percent of teachers hired within the districts, etc., will be continuously monitored and recorded within the CART data management system so that at any given time a status report can be generated. Quarterly reports will be generated to provide formative data so mid-course adjustments can be made as needed. Other data sources include annual electronic surveys of all program participants including the RTRs, and Mentors as well as the teachers and principals at each of the 15 host schools, district coordinators, personnel and superintendents. Interviews and focus groups will be conducted annually with RTRs, Mentors, and selected individuals to determine progress of each of the TQP and CARTs goals and objectives. The instruments to measure the indicators will be collaboratively developed with full input from all partners and include: 1) Classroom observation protocols; 2) RTR, Mentor Teacher, Principal, and District Staff Surveys; 3) Individual and focus

group interview protocols; 4) Professional development assessments; and others will be developed as needed.

**a. CART will Meet all Reporting Requirements of 204-A:** (1) achievement for all prospective and new teachers, as measured by the scores earned during and after the residency relative to others not in a residency program in Louisiana; (2) teacher retention in the first three years of a teacher’s career; (3) improvement in the pass rates and scaled scores for initial State certification or licensure of teachers; and (4) (A) the percentage of highly qualified teachers hired by the high-need local educational agency participating in the eligible partnership; (B) the percentage of highly qualified teachers hired by the high-need local educational agency who are members of underrepresented groups; (C) the percentage of highly qualified teachers hired by the high-need local educational agency who teach high-need academic subject areas (such as reading, mathematics, science, and foreign language, including less commonly taught languages and critical foreign languages); (D) the percentage of highly qualified teachers hired by the high-need local educational agency who teach in high-need areas (including special education); (E) the percentage of highly qualified teachers hired by the high-need local educational agency who teach in high-need schools, disaggregated by the elementary school and secondary school levels; (F) the percentage of teachers trained—(i) to integrate technology effectively into curricula and instruction, including technology consistent with the principles of universal design for learning; and (ii) to use technology effectively to collect, manage, and analyze data to improve teaching and learning for the purpose of improving student academic achievement.

**(iii). The extent to which the methods of evaluation will provide performance feedback and permit periodic assessment of progress toward achieving intended outcomes**

Access to information gathered throughout the implementation process is invaluable to making decisions based on the data. The evaluators will provide at a minimum quarterly updates and report immediately on any obstacles encountered that would harm the program's implementation. The quarterly reports will inform the CART Partnership of progress toward reaching its goals and objectives. These reports will provide insight into any situations that could adversely impact the continual progress toward reaching the goals. Having this information early provides opportunities for re-examining methods of implementation. An annual report will be produced that meets the TQP requirements and provides a summative account of the progress made thus far in the program. In addition, we will use regression analysis to estimate the independent effects of program participation on gains.

### **C. Significance**

#### **(i). The likelihood that the proposed project will result in system change or improvement.**

The CART Partnership will build on the success of The Rapides Foundation's [REDACTED] investment in the nine school districts over the past decade and leverage the next five years of TRF investments totaling [REDACTED]. While the funding that supports the nine districts is significant, the additional contribution to the compensation package of the employed district coordinators over the past decade is significant and suggests a solid foundation is in place to ensure integrity of the project implementation. This infrastructure is most significant and critical to a well orchestrated Teacher Quality Partnership grant implementation and sustainment over time. Finally, it is significant that TRF has employed Western Michigan University and Louisiana State University during the past five years to evaluate the SIE. The evaluator's longitudinal data was critical to the CART Partnership needs assessment and when coupled with LEDRS will be essential to continuous improvement, adjusting course, and diffusion of results.

While the nine districts have learned by experience how to operate as a system, they are still exhibiting low expectations. In the past, the population of the region depended upon the local industries for jobs that are typical of agrarian societies, the timber industry for example. Although many of the traditional industries are in distress there is a persistent notion that subsistence can continue to come from the local economy. Therefore, the expectation for many parents is that their children will graduate from high school and get a job nearby. This pervasive attitude has limited the ability to develop a college-ready system with high expectations for student achievement. This attitude prevails across Louisiana, which is one reason why it ranks 50<sup>th</sup> in the number of students taking AP courses—it lags far behind Arkansas and Mississippi, which are the two states generally used for state comparison purposes.

This is readily apparent in the numbers of teachers in Cenla who are teaching either AP or Dual Enrollment courses: Only eight of the 4418 teachers in the nine districts are teaching AP mathematics and science courses and only 25 are teaching Dual Enrollment mathematics and science courses. The CART Partnership will produce 60 new teachers with the credentials to teach AP and Dual Enrollment courses to help overcome the lack of high level course offerings. Although it is likely that in the smaller high schools there will only be few students for each course, the districts will collaborate to maximize the number of students in each AP and Dual Enrollment course and over some distance courses with on-site follow up. While all students may not meet the goal of attaining a “3” on the AP exam, studies have shown that students who are taught in AP classes but do not make the passing grade have a greater understanding of the content and score better on tests than those taught in a conventional, non-AP course. The quality is better and the students learn more content conceptually through active learning practices rather than rote memory.

There has been a push from the state to raise expectations and offer more AP and DE coursework, and the partner districts are feeling the pressure to improve. In addition many traditional jobs that families have worked in for generations are coming to a close in favor of more technology driven industries that demand higher levels of learning. This project fulfills that need to increase the capacity of the workforce and improve student performance in mathematics and science. During the visits with the districts in preparation for this TQP proposal, the message was clear—the superintendents believe the CART Partnership will dramatically improve their capacity to deliver high quality instruction to Cenla’s students. It raises the bar for the entire region—something everyone has been wanting to do, but did not have the means to do until now. The districts’ needs are the real drivers of the CART Partnership.

The relationships of trust that have been developed over the past decade, coupled with a significant influx of 60 new teachers CART will provide makes it highly likely that the CART Partnership will make a sustained impact on the region in a way that minimizes the poverty of low expectations. The dramatic increase in the number of mathematics and science teachers capable of teaching AP/DE courses, from eight to 68 is significant and will support a college going culture by dramatically increasing the number of AP and Dual Enrollment courses offered.

**(ii). The extent to which the proposed project is likely to build local capacity to provide, improve, or expand services that address the needs of the target population.**

The CART Partnership’s needs assessment is based on research by Professional Education LLC, which was commissioned in 2007 by The Rapides Foundation in preparation for its Systemic Initiative in Education, the annual evaluation reports conducted by Western Michigan University and Louisiana State University in support of the Systemic Initiative in Education, The Rapides Foundation 2007 Annual Report and Economic Report, and The

Orchard Foundation assessment conducted in April 2009 with each of the nine superintendents and during the annual superintendent's retreat May 26-28, 2009. In the following aggregate the nine districts have the following needs which will be addressed through CART:

- 1) A culture of low expectations;
- 2) A curriculum with few advanced mathematics and science courses;
- 3) Only 8 of 4418 teachers in the nine districts are capable of teaching AP mathematics or science courses and only 25 of the 4418 teachers meet Southern Association of Colleges and Schools requirements to teach Dual Enrollment mathematics or science courses;
- 4) The nine parish teacher retention rate ranges from 5 to 25 percent;
- 5) Teachers in the nine districts holding emergency, provisional, or temporary license ranges from 1.70 to 21.05 as documented by state records;
- 6) The absence of new teacher induction or mentor programs from either the state or local districts;
- 7) Unmet district hiring objectives for advanced mathematics and science teachers who are capable of teaching AP or Dual Enrollment courses;
- 8) No leadership career succession system; and
- 9) Only 62 National Board Certified Teachers out of 4418 teachers in the nine districts

Like many rural school districts, the nine districts of Central Louisiana face a shortage of well-qualified teachers in large part because of their geographical isolation, lack of affordable housing, and low compensation. Teacher salaries in Louisiana rank 42nd in the nation, placing them firmly in the bottom tier. Because of these low salaries, Louisiana has a high turnover rate among teachers (American Federation of Teachers, 2009). But the need for effective teachers is made even more pressing by the nine districts' ambitious improvement plans, the Systemic Initiative in Education and its follow-up initiative STEM/CTE. The nine superintendents are committed to developing a curriculum that goes beyond algebra as its top mathematics course. The state is committed to raising teacher pay. In 2009, teachers won an average pay package

increase, including salaries and benefits of \$1,176 in the present year's budget at a cost of \$70.1 million (Davis, 2009). With so much at stake, the districts and the partners are deeply committed to making this program a model for the nation.

**(iii). The importance or magnitude of the results or outcomes likely to be attained by the proposed project, especially improvements in teaching and student achievement**

The power of the CART Partnership lies in its comprehensive, disciplined and practical model to foster improved student achievement and educator professionalism in rural Louisiana. Additionally, the extent to which the CART Partnership is effective will be conclusively measured in frequent diagnostic, as well as regular formative and summative checkpoints built into the existing Louisiana longitudinal data system. With this infrastructure already in place, the CART Partnership can assure baseline data that is both statistically defensible and highly practical in determining data-driven policy, training and support from the outset. With such information available to researchers and practitioners throughout the entire duration of the five-year grant, the potential for accurate scholarship and a wealth of validated instructional best practices is indisputable. Also, the CART Partnership will develop 30 Mentors and establish a sound multi-year induction program to support the RTRs. The 36 leaders who will be prepared for formal leadership graduate programs and the school and district leadership teams who will be thoroughly grounded in assessment literacy and Interstate School Leaders Licensure Consortium standards are value added and will help create the conditions for success for the 60 new teachers. The RTRs' capability to deliver AP and DE mathematics and science courses will catalyze the TRF STEM/CTE initiative ensuring students are fully prepared for careers that require at a minimum two years of college.

Given the CART Partnership's residency and Masters in Natural Science degree with embedded pedagogy, powerful data-gathering and state longitudinal tracking mechanism, comprehensive, site-based pedagogical and leadership training and support, and rigorous selection processes as well exemplary professional development providers - the CART Partnership will provide the American educational community with a replicable model on how to dramatically improve rural schools.

**(iv). The potential for continued support of the project after federal funding ends, including, as appropriate, the demonstrated commitment of appropriate entities to such support.**

Given the state department's interest in the innovative residency program, the support from the universities to develop a new pathway to teacher certification, the [REDACTED] in funds available to The Rapides Foundation and its documented investments totaling some [REDACTED] over the past decade to improve education, and its commitment to invest an additional [REDACTED] in the 2009-2014 STEM-CTE Initiative, it is readily apparent that the CART Partnership can and will sustain the student achievement gains made during the grant period and beyond.

The Mentor teacher and induction program will be a pragmatic anchor for the districts well into the future. The distance learning delivery of AP and DE courses across nine districts will enable the districts to unlock the gatekeeper courses so many more of Cenla's children can enter college or the workforce prepared for the 21<sup>st</sup> Century.

**d. Quality of the Management Plan (15 points)**

**(i). The adequacy of the management plan to achieve the objectives of the proposed project on time and within budget, including clearly defined responsibilities, timelines, and milestones for accomplishing project tasks.**

The CART Partnership management plan clearly communicates the intent of the project to focus the human and fiscal resources on the delivery of services to the RTRs.

The following management plan provides clearly defined roles, responsibilities, timelines, and milestones. Based on the project evaluation and recommendations from project staff, partners, and collaborators modifications will be made for subsequent years of the project.

**Goal 1:** Improve student achievement by increasing the number of highly effective/highly qualified high school teachers who teach Advanced Placement (AP) and Dual Enrollment (DE) mathematics and science courses as measured by their students' scores on criterion- and norm-referenced tests.

<b>Activity/Task</b>	<b>Timeline</b>	<b>Budget/Resources</b>	<b>Person(s) Responsible</b>	<b>Milestones</b>
Develop marketing plan and program brochures/fliers/Web-site	Begin planning at notification	Marketing activities, printing, listserves	PI, Orchard	Marketing plan developed and implemented first semester
Develop MNS program and materials	Begin planning at notification	MNS program materials--overall	PI, LSU MNS and education faculty, LSUA faculty	Fully developed MNS ready for implementation by March, 2010
Develop additional academic year components	Begin planning at notification/ Assess, make changes annually	MNS Program materials—academic year	PI, LSU MNS and education faculty	Academic year components completed by May, 2010
Contact appropriate agencies and organizations to inform about the CART Partnership	Onset of grant and each year thereafter	Mileage, telephone, mailings, printing, Website	PI, Orchard, Districts, The Rapides Foundation, LSU, LSUA, LDE	Organizations and agencies are informed about CART within 2 weeks of onset
Recruit and interview 60 potential cohort members , develop	Years 1- 4	Recruiting materials, mileage	PI, Orchard, LSU, LSUA,	Eligible applicants are accepted to

online application form			Districts	cohort
Develop a schedule of activities around school schedules	Onset of grant; Update yearly	Activity list	PI, Orchard, LSUA	Yearly schedule of activities
Establish baseline Information using LEDRS	Onset of grant; Update continually	Computer, participant assessments	PI, Project Evaluator	Baseline established
<b>Goal 2: Create a teacher induction program model that retains 85% of the RTRs in the CART program during their first three years of service.</b>				
Identify, recruit and train 15 Mentor teachers	Year 1	CFAS Modules	Advanced Learning Partnerships	15 Mentors trained
Convene the CART Advisory Board	During first session, and quarterly	Telephone, Mailing	PI, Orchard	Advisory Board convened
Provide residents with individualized attention and intensive instruction and professional development in C21 Skills, Assessment for Learning, and Inclusion	Ongoing	Academic support staff, Curriculum  Professional Development	PI, Orchard  Advanced Learning Partnership	All participants receive instruction and Professional Development
Provide mentoring in residency and 2 years of induction	Ongoing	CFAS modules	PI, Orchard, Mentors	Participants will receive the individualized mentoring
Conduct evaluation with all indicators measured	Ongoing, quarterly reports, annual reports	Data systems, web development for online surveys	The Cain Center	Longitudinal tracking of all measures as identified in the objectives, GPRA

				measures
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**(ii). The adequacy of procedures for ensuring feedback and continuous improvement in the operation of the proposed project.**

Weekly face-to-face or real time video conferencing-based staff meetings will incorporate discussion focusing on: 1) project implementation activities and barriers to successful implementation; 2) project successes and outcomes; and 3) the allocation of resources to support the project. Appropriate staff assignments and steps will be taken to make necessary modification based on the discussions.

The close coordination between the Principal Investigator, faculty, evaluator, school district staff and Orchard Foundation staff will allow for continuous feedback, reactions, and assessment of project services and activities. This feedback will yield valuable information that will be used to modify and improve delivery methods. Relationships with other programs that have demonstrated their success in meeting the educational needs of migrant families and out of school farm workers and/or youth will likewise provide valuable assistance and feedback to the project staff.

The systematic evaluation process will involve all staff in the reporting and feedback loop. It features an Evaluation Planning Team with key staff and the external evaluator examining the project implementation and outcome data on an annual basis. An experienced external evaluator will write an annual evaluation report that will be reviewed by the Principal Investigator and the District Superintendent. These reports will contain a data summary, conclusions, commendations, and recommendations that will be discussed and analyzed at subsequent staff meetings.

**(ii). The adequacy of mechanisms for ensuring high-quality products and services from the proposed project**

The project will use the LEDRS database modified for the project to facilitate rapid and accurate compilation of project statistics monthly, quarterly, and annually as part of the project evaluation to track progress in achieving objectives clearly. Data accumulated through this process will provide information for further strengthening of performance, or, if the established performance standard is not achieved, a basis for examining the reasons for this shortfall, and the programmatic changes that must be made to services provided for participants to meet the original objectives.