

Richmond Teacher Residency (RTR) 2.0 Proposal

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Senator Mark Warner
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Dr. Peter Blake, Executive Director, State Council of Higher Education in Virginia
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Dr. Hollee Freeman, Executive Director, MathScience Innovation Center

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RTR 2.0 Proposal Narrative

Purpose: The purpose of the Richmond Teacher Residency (RTR) 2.0 proposal is to further refine, expand, and evaluate the impact of Richmond Teacher Residency Program on teacher retention and student achievement in the most critical shortage areas for Richmond Public Schools (RPS). This proposal addresses **Absolute Priority 2**, Partnership Grants for the Establishment of Effective Teaching Residency Programs and **Competitive Preference Priority 1**, Promoting Science, Technology, Engineering, and Mathematics (STEM) Education (see pages 25-29) and **Competitive Priority 2**, Implementing Internationally Benchmarked College- and Career-Ready Elementary and Secondary Academic Standards (see page 16).

Background/Profile of Partners: Richmond Teacher Residency (RTR) is a partnership between Virginia Commonwealth University (VCU) and RPS. RPS serves nearly 25,000 students in 27 elementary, 8 middle, and 8 high schools. The ethnic and racial background of district students is 88% African descent, 4% Latina/o, 1% Asian, and 7% White. Approximately 20% receive special education services. Three quarters of all students are eligible for free and reduced lunch. Thirty-one percent of the students in RPS live in households that are 100% below the federal poverty level, more than half of parents in Richmond are single parents, and the median incomes of families in RPS is less than 60% of the average in the greater Richmond area. Thirty out of 43 schools are designated by the state as "in improvement" due to poor student achievement. RPS typically loses 300 teachers per year which translates into an annual cost of \$6.1 million (NCTAF, 2007). (See Appendix A for a complete description of how RPS qualifies as a high-need district according to Section 200(10) of the Higher Education Act.)

Virginia Commonwealth University (VCU) is an urban, public institution of higher education enrolling over 31,000 undergraduate and graduate students in Richmond. Faculty at

VCU attracts more than \$260 million in sponsored research funding, placing it among the top 70 research institutions in the country. VCU is one of only 40 institutions nationwide to receive the Carnegie Foundation's designation as a Research University with Very High Research Activity and Community Engagement and is on the President's Higher Education Community Service Honor Roll. The VCU School of Education is among the top research schools in the U. S. and is ranked 30th by *US News & World Report* (2014) as one of the nation's top graduate programs in education and 20th among public universities. The VCU College of Humanities and Sciences (CHS), that provides STEM coursework, has a long history of working collaboratively with the School of Education (SOE) and local K-12 educators (see letter from CHS Dean Coleman, Appendix G). Evidence of this collaboration can be seen in the shared governance of: (1) the Policy Board for the Ph.D. in Education; and (2) the Professional Education Coordinating Council (PECC), a policy body regarding teacher education and licensure that has existed since the 1980's and in Spring 2004 modified its governance structure to include K-12 representatives. In addition, numerous SOE courses are cross listed with department offerings in the CHS.

VCU and RPS have a rich history of working together to facilitate the educational success of students and the development of teachers and leaders. Beginning in the early 1990's, VCU established seven Professional Development Schools in the metro-Richmond area, three of which were with RPS. In 2001, the Metropolitan Educational Training Alliance (META), a partnership between four local school districts (including RPS) and VCU, was established to promote student learning by improving the preparation, effectiveness, and retention of high-quality teachers. RTR is a mature partnership that builds on this long history of VCU and RPS working together to improve outcomes for students. Through an earlier TQE-P grant received in 2010, RTR is now preparing its 4th cohort of residents.

Since 2011 RTR has been a member of the Urban Teacher Residency United (UTRU), a non-profit, national network of urban teacher preparation programs dedicated to developing, supporting, and accelerating the impact of residency programs. RTR participated in the UTRU two-year Residency for Residencies program designed to ensure fidelity to the Urban Teacher Residency (UTR) model. UTRU has evaluated and advised RTR each year through mid-year and end-of-year surveys, as well as annual retreats in which UTRU staff facilitates conversations around RTR data and their implications for program revisions and improvements.

RTR is housed within the Center for Teacher Leadership (CTL) at the VCU School of Education. CTL coordinates all aspects of RTR and collaborates with both VCU and RPS in conducting the residency program. CTL has a long history of developing strong collaborative partnerships in the local community to achieve multiple stakeholders' goals. (See Appendix H for a description of these partnerships and CTL projects.)

Significance/Needs Assessment: America's public schools are hemorrhaging teachers, especially in urban districts where they often are forced to hire unqualified, provisionally licensed teachers. One third of all teachers leave the profession within the first three years. More than 50% of all urban teachers leave within the first five years (Barnes, Crow & Schaeffer, 2001). Even more disturbing is that there is evidence that the most effective beginning teachers are the first to leave. A recent study of four urban districts found that nearly one-third of highly effective teachers left within two years, and almost half left within five (TNTP, 2012). Hardest hit are schools that serve low-income and minority students (Ingersoll, 2001). In urban districts, the annual teacher attrition rate is estimated to be 19-26% (Ingersoll & Perda, 2009), forcing urban school districts to spend millions of dollars each year on recruitment and retention practices designed to identify, hire, and retain effective teachers (NCTAF, 2003). This churning

of teachers not only affects the stability of schools, it also negatively impacts students, impeding student achievement and school reform efforts (Cooper & Alvarado, 2006; Ingersoll, 2007; Ingersoll & Perda, 2009; Ingersoll & Smith, 2003). A study of 850,000 fourth and fifth graders in New York City found that teacher turnover had a significant negative impact on student achievement in math and English, especially in high-minority and low-achieving schools. Furthermore, the turnover had a negative impact on students throughout the school (Ronfeldt, Loeb, & Wyckoff, 2013).

Like most states, Virginia has struggled to recruit and retain highly effective teachers, especially in its urban schools. Virginia's traditional teacher preparation programs are unable to meet urban staffing needs in both sheer numbers of new teachers produced and new teachers who are both well-prepared for and seek the challenges of high-need, urban schools. In an effort to address this issue, Virginia implemented a Career Switcher Program in 2000 to provide an alternate route for teacher certification. While no formal evaluation of the Career Switcher Program's effectiveness was conducted, anecdotal evidence from Virginia's urban districts and national studies on alternate certification recruits suggest that these individuals are not well-prepared for urban classrooms and leave teaching in greater percentages than traditionally-prepared teachers (Rochkind, Ott, Immerwahr, Doble, & Johnson, 2007; Darling-Hammond, 2011). However, even the best traditional teacher preparation programs also have fallen short in adequately preparing individuals for urban schools. As Haberman noted, "Completing a traditional program of teacher education as preparation for working in . . . [urban, high-need schools] is like preparing to swim the English Channel by doing laps in the university pool" (1995, p. 2). Strategies must be in place to not only recruit highly qualified teachers for urban classroom, but also to retain them. (Darling-Hammond, 2010). An important component of

retaining beginning teachers is an effective and comprehensive induction program (Villar, 2004). The types of induction support most positively associated with retention include intensive mentoring (Stanulis & Floden, 2009; Wang, Odell, & Schwille, 2008), common planning time and regularly scheduled collaboration with other teachers (Smith & Ingersoll, 2004), an external network (Ingersoll, Smith, & Dunn, 2007), quality support from administration (Stockard & Lehman, 2004), and adequate instructional resources (Johnson & Birkeland, 2003).

The UTR model draws on the strengths of traditional and alternate route teacher preparation programs through a year-long, medical-style residency that allows candidates to scaffold their learning through an extended period of well-supervised clinical practice guided by both university faculty and master teachers who jointly provide instruction. In addition, UTRs support residents once they are hired as teachers of record. This integration of theory and practice and post-residency support makes it more likely that residency candidates will remain in urban districts and will be well-prepared for the realities of urban classrooms based on the available correlational evidence cited above. Based on strong theory, UTRs provide a promising approach to meeting the national challenge of reducing teacher attrition and improving teacher effectiveness in urban schools that ultimately should positively affect student achievement.

This proposal will use RTR data from the past four years to further refine, expand, and evaluate the work of RTR in preparing teachers for the most critical RPS shortage areas and to create RTR 2.0. Originally, RTR focused solely on recruiting and preparing secondary teachers in math, science, social studies, and English based on a study of high-need RPS schools. In addition, more secondary schools were not meeting accreditation benchmarks and AYP targets. RTR has now prepared 32 teachers for RPS (3 cohorts), 20 who are currently teaching in RPS and 9 who will begin their first year as teachers of record in August 2014.

(Note: One individual in our first cohort chose not to accept the position he was offered in RPS and two others left RPS after completing their first year of teaching. VCU’s strict repayment procedures were enacted [stipend repayment, withholding transcripts]. All 3 graduates who did not complete their service agreement have repaid the university). RTR is now in 7 out of 8 middle schools, all 5 high schools, and 2 specialty centers. Fourteen secondary education residents are currently being prepared in Cohort 4. **RPS has placed 100% of RTR graduates, hiring them before all other new hires each year.** The content breakdown for all four cohorts:

Table 1. Content Focus of Past and Current Residents

Subject	Cohort 1 2011-2012	Cohort 2 2012-2013	Cohort 3 2013-2014	Cohort 4 2014-2015	Content Totals
English	4	3	2	4	13
Math	1	1	0	2	4
Science	1	7	3	4	15
Social Studies	3	3	4	4	14
Total	9	14	9	14	46

However, the most recent data from RPS indicate that our focus needs to shift (B. Johnson, personal communication, June 4, 2014) from the previous emphasis on social studies (Table 1) to focus on special education teachers given that 66% of elementary special education teachers and 48% of secondary special education teachers were hired provisionally in 2013-2014 (Table 2).

Table 2. Hiring Trends in Richmond Public Schools

		# Hired		# Hired as Provisionals		% of Provisionals		# of Long-Term Subs	
Subject	Year	2012-2013	2013-2014	2012-2013	2013-2014	2012-2013	2013-2014	2012-2013	2013-2014
		Elem. SPED	30	15	11	10	40%	66%	1
	Sec. SPED	30	37	14	18	46%	48%	7	12
	Math	24	27	12	8	50%	29%	4	12
	Science	15	19	3	3	20%	15%	4	5
	Social Studies	7	19	0	2	0%	10%	0	0
	English	19	23	4	9	21%	39%	3	0

Based on these data, we are expanding our partnership to include the VCU Department of Special Education and Disability Policy to pilot a Special Education (SE) track. During 2014-

2015, 17 residents will earn an M.Ed. in Special Education by completing four semesters of coursework while spending the residency year co-teaching with an RPS master/mentor teacher. The RTR 2.0 proposal will revise the SE track based on the current pilot with a particular focus on strengthening the content knowledge of SE teachers.

Funding for the current SE pilot was possible because RTR was unable to meet its target of 20 residents per year in the secondary track. This shortfall was the result of multiple factors: (1) Virginia has the highest cut scores and strictest licensure requirements in the nation; (2) Requirements of the VCU Master of Teaching (M.T.) approved program gave us no latitude in accepting outstanding individuals who did not come with the required major. Even if candidates had the right major, they often lacked specific coursework required by the VCU approved program; and (3) Despite an intensive focus on recruiting STEM candidates, applications were extremely limited. This is a common challenge across all residency and traditional programs. The assumption that there is a large and rich pool of individuals with math and science backgrounds who wish to be teachers seems to be unsubstantiated by facts.

For secondary candidates who do not have the required pre-requisite coursework for the M.T., RTR negotiated an additional option for the current cohort. Candidates who are otherwise strong and who have been vetted by both RTR and RPS will have the option of pursuing the M.Ed. in Curriculum and Instruction. The education coursework between the M.Ed. and the M.T. degree aligns well. This has enabled us to accept two math candidates in Cohort 4 who would otherwise have had to take 3-5 additional math courses. As part of this proposal, we will work with Dr. Guofang Wan, the Director of the Office of Graduate Studies in the VCU School of Education, to identify additional options for strong candidates who can meet the state licensure requirements, but not those of the VCU approved program, as a means of expanding

the pool of STEM candidates for RTR. However, while additional flexibility is helpful, it does not address the root challenge related to the recruitment of STEM teachers--that there is not a large pool of individuals with STEM majors, particularly in math, who are interested in becoming teachers, especially in urban districts. Therefore, this proposal will leverage other STEM-focused efforts at the VCU College of Humanities and Sciences and expand our partnership to include the Virginia Department of Education, the MathScience Innovation Center, and the Mary and Frances Youth Center to build a pipeline of STEM teachers at the K-12 and pre-baccalaureate levels. The proposal also will expand RTR by recruiting 120 new residents in the most critical shortage areas in RPS (30 per year in Years 1-4), at least half of whom will be special education (SE) residents. Several residency programs in the UTRU network have developed a special education track to better serve their districts in this high-need area. Therefore, we see this expansion as both a natural next step for RTR's plans for growth and expansion to better meet the needs of RPS-- and also as an opportunity to learn from others within the network as we pilot the new SE track. As the SE tracks are fairly new within the UTRU network, the evaluation we will conduct as part of the RTR 2.0 proposal will contribute to the knowledge base of how to prepare effective urban SE teachers using the UTR model. In addition, the state of Virginia has identified RTR as a prototype for other university-school partnerships that can be used to improve low performing schools. However, it also has identified the need to collect longitudinal data to evaluate the impact of residency programs. On June 9, 2014, the Joint Legislative Audit and Review Committee (JLARC) issued a report to the Governor and the General Assembly with the following recommendation on page 59:

Recommendation (5). *The General Assembly may wish to consider providing grants to higher education institutions and local school divisions to partner on developing teacher residency*

programs near Petersburg and Norfolk. Because teacher residency programs are relatively new, there is limited research on how they impact student achievement. According to VCU staff, the Richmond teacher residency program would need to continue for three years in order for its impact on student achievement to be accurately measured. If the state provides funds to support teacher residency programs, the state should monitor their impact on student achievement in urban high poverty schools. As a condition of receiving state funds, teacher residency programs should be required to report annually on this impact.

The significance of the RTR 2.0 proposal is clear: (1) It will pilot and refine a new SE track with a particular focus on strengthening the content knowledge of SE teachers; (2) It will build a pipeline of STEM candidates starting at the K-12 and pre-baccalaureate levels that is geared toward building local capacity to identify and support students interested in pursuing a teaching career in STEM fields; and (3) It will recruit, prepare, and support 120 highly qualified SE, math, science, and English teachers, thus enabling RTR to gather sufficient longitudinal data to determine its effectiveness in increasing teacher retention and student achievement in critical shortage areas. These data are a necessary step in securing adequate state and local funding to sustain RTR beyond the grant period.

This proposal will result in system change at three levels: (1) At the university level, it significantly changes the way in which VCU and other higher education institutions prepare teachers for urban schools. As cited earlier, neither traditional nor alternative route teacher preparation programs have been effective in meeting the staffing needs of urban schools in both sheer numbers and in terms of how well new teachers are prepared to meet the challenges of urban teaching. RTR and other urban teacher residencies provide a third way of recruiting, selecting, preparing, and supporting new teachers for urban schools that draws on the strengths

of traditional and alternate route programs. By blending theory and practice through an extended period of well-supervised clinical practice under the tutelage of master veteran teachers and providing at least two years of post-residency support, graduates of RTR will be well prepared for the realities of urban classrooms and will remain in RPS. The concept of serving districts, rather than university students, is also a systems changer. Unlike typical traditional programs, RTR does not accept all students who meet VCU requirements. We actively recruit and select only those individuals who have both the academic background and the dispositions to meet the staffing needs of RPS. **(2) System change also will occur at the school level through RTR.** We are not only preparing effective new teachers, but we also are improving the effectiveness of veteran teachers who work with the RTR residents. We have seen this most dramatically with those veteran teachers who were career switchers, and therefore, entered teaching without any preparation in pedagogy. They have learned best practices from their residents, and they have also learned the coaching skills necessary to support a novice teacher (and other colleagues) in improving instructional practice. The knowledge and skills gained by serving as a mentor to residents will remain in the schools as these individuals continue to serve as teacher leaders. By placing residents in cohorts within schools, RTR builds a critical mass of highly effective new and veteran teachers who can positively change the culture of low-performing schools in terms of attitudes, commitment, and effectiveness. **(3) At the district level, RTR will lead to system change by creating a pipeline of young people who are interested in pursuing teaching careers in STEM fields.** Creation of this pipeline is one of 3 major objectives for the current RTR 2.0 proposal and our multi-faceted approach is described in detail in the next section. This long-term commitment to meeting staffing needs in critical shortage areas responds to decades of research that indicate that a "grow your own" approach is the most effective

(Gallegos, 1995b; Clewell and Villegas, 2001; Boyd, Lankford, Loeb, & Wyckoff, 2005; Reininger, 2012). Taking a pro-active approach to ensuring an adequate supply of STEM teachers is a paradigm shift for most school districts who often just hope that people with the right credentials will apply for these critical shortage areas. Our plan is to tap into a number of sources (e. g. , the Virginia Teachers for Tomorrow Program, the MathScience Innovation Center, and the Mary and Frances Youth Center) to generate interest and excitement for STEM teaching in the next generation of educators.

Quality of Project Design: RTR's mission is to increase student achievement by recruiting, preparing, and supporting outstanding teachers for RPS who are committed to social justice and the elimination of educational inequities. (Appendix H provides a listing of all program components that are described below.) The proposed project builds on four years of knowledge and experience in recruiting teacher candidates (called residents) and preparing them exclusively in RPS through an intensive, school-based teacher preparation based on the UTRU Seven Principles of Teacher Residency. **These principles were derived from the literature on developing and retaining effective teachers in urban schools (UTRU, 2006) and form the basis of the theoretical model guiding this proposal.** The seven principles are: (1) Tightly weave education theory and classroom practice together; (2) Focus on learning alongside an experienced, effective mentor; (3) Group teacher candidates in cohorts; (4) Build constructive partnerships with districts, schools, communities, universities, and unions; (5) Serve school districts; (6) Support residents once they are hired as teachers of record; and (7) Establish and support differentiated career roles for veteran teachers. These principles are embedded in the input column of the RTR Logic Model (Table 3) and inform the activities that will be enacted with the goal of impacting short-, medium-, and long-term outcomes predicted from the model.

Table 3. RTR Program Logic Model based on the UTRU Principles

Inputs	Activities	Short-Term Outcomes	Med-Term Outcomes	LT Outcomes
Existing Partnership with RPS and VCU (Principle 4, 5, 7)	Resident recruitment and selection process Clinical Resident Coaches (CRCs) and Career Coaches (CCs) application and selection process	RPS provides information about district and local school needs Highly qualified residents, CRCs, and CCs	Program participants well-suited to mission of the RTR program High rates of residency year program completion	Increased rates of teacher retention in urban schools and improved student academic outcomes.
RPS host school principals familiar with RTR (Principle 3, 5)	Identify host schools based on CRC selection and RPS content-area needs.	Host schools serve as residency sites RTR grads hired in cohorts in high-need schools	Well prepared novice teachers and more skilled veterans Critical mass of highly effective teachers	
VCU faculty and RTR staff with expertise in urban teacher prep, effective schools, and mentoring (Principle 1, 7)	VCU master's coursework adapted to address the needs of urban schools RTR Summer & Residency-year seminars	Delivery of course content On-going support of residents in communities of practice	Novice teachers with strong content-knowledge and pedagogical expertise in urban teaching	
RPS master teachers serve as CRCs/CCs (Principle 2, 6)	Implementation of NTC mentoring model and strategies CRC and CC monthly forums to support mentoring of residents and RTR graduates	Enhanced coaching skills and knowledge Effective coaching practices informed by individualized resident needs	Novice teachers with strong pedagogical urban teaching skills Skilled veteran teacher leaders Retention of both new & veteran teachers	

How the Current RTR Program Meets the Requirements of Absolute Priority 2: RTR began four years ago with small cohorts of residents. Over these years the program has been developed through continuous improvement methods focusing on the inputs and activities depicted in the logic model above. **A strong partnership between VCU and RPS (Input 1) has evolved to include a rigorous, multi-stepped process conducted jointly that identifies outstanding, highly-qualified individuals who have the dispositions necessary to be effective urban teachers.** Individuals with at least a bachelor's degree are accepted into RTR based on an academic major, a 3.0 GPA, a written application/phone interview, and the completion of a rigorous on-site selection process that includes: (1) teaching a mini-lesson in front of RPS students; (2) participating in a group discussion activity around an urban issue; (3) a personal interview conducted by both a VCU and RPS professional; and (4) an on-demand writing sample. By including RPS professionals in all aspects of the Selection Day assessments, RTR ensures that residents will be a good fit for RPS before they are invited to become a part of the program. We also are the only residency program in the nation that invite the students who participate in the mini-lesson to evaluate the candidates during Selection Day. Over the past four years, we have found that the students are often more perceptive than the adults in identifying those who will or will not be successful as urban teachers.

The strong VCU-RPS partnership extends to a close working relationship with principals at host schools (Input 2) to identify sites that are welcoming to residents. Residents are placed in cohorts within each host school. The cohort concept is further reinforced by a unique living/learning environment supported by a business partner, Main Street Realty (MSR). Residents live together during the residency year in an historic building that has been converted to apartments. MSR provides one month free rent to all residents and has built a

fully equipped seminar room in which classes are held and residents can come together to plan lessons or just relax and socialize (see Appendix G for letter of support). This allows residents to support each other 24/7. In addition, RPS makes every effort to hire RTR grads in cohorts within schools, including non-host schools, thereby developing a critical mass of highly effective and dedicated new teachers that can help to positively impact the culture of each school.

Input 3, the VCU faculty and RTR staff with theoretical and practical knowledge of effective urban teacher preparation, effective schools, and mentoring, has been central to reworking the master’s coursework (theory) and designing the residency year experiences (practice) to ensure that RTR graduates will be effective urban teachers. Because basing instruction on data is essential to effective teaching, the RTR curriculum teaches residents to examine two types of data: (1) data related to their students’ learning; and (2) data related to their teaching practice. The RTR curriculum approaches the examination of data on student learning in two ways. First, the RTR mentors (called Clinical Resident Coaches) learn to use the formative assessment tool, *Analysis of Student Work*, developed by the New Teacher Center (NTC) as part of their training for working with residents. This tool focuses on learning management rather than behavior management; helps residents identify patterns of students who are struggling or who are not achieving to the expected levels; and encourages reflection. Like a medical round, university faculty, CRCs, and residents discuss student work using protocols that encourage residents to reflect on their diagnostic abilities in regard to student learning needs, the effectiveness of the treatment (instruction), and possibilities for future practice. Second, residents also participate with their CRCs in the RPS process of analyzing data regarding trends in student performance on district-wide assessments.

Collecting data on teaching practice also is an integral part of the RTR curriculum.

Initially, residents are taught to use NTC tools such as selective scripting, seating charts to track verbal flow and movement patterns, and the content, strategies, and alignment tool to collect data during classroom observations of RPS teachers. Like medical grand rounds, cohorts of residents and university faculty and/or CRCs observe the same lesson and the data collected forms the basis of class discussions on effective teaching. Using these tools to collect and discuss data on teaching practice helps residents understand the power of using data to improve instruction. It also makes them more comfortable when their CRCs use these same tools to collect data on their practice as they begin to teach lessons independently.

The ability to use research and data to modify and improve classroom instruction is critical if residents are to meet the needs of RPS students, particularly English language learners (ELLs), academic (standard) language learners (ALLs), and students with disabilities. Residents learn research-based elements of universal design and strategies to differentiate instruction to support students with disabilities. A special focus during 2014-2015 will be to create structured opportunities to bring the SE and secondary residents together to help them learn effective approaches to collaboration in inclusive classrooms. The RTR curriculum also emphasizes the needs of ELLs and ALLs regarding academic vocabulary, writing instruction, and oral work in the classroom. In particular, residents receive the linguistic training needed to build on the language skills of Richmond's dialectically diverse African-American students—who represent 88% of the total student population. Residents learn to help RPS students become more adept at “code-switching” by understanding these patterns and applying this learning to the effective use of academic English, thereby honoring the linguistic expertise, culture, and background of students while using critical prior knowledge to access new learning (Anderson, 1999). In addition, because residents will encounter RPS students who are reading below grade level,

literacy instruction across the content areas also is provided as a foundational skill that residents will need no matter what subject they teach, with an emphasis on instructional strategies regarding comprehension and decoding skills.

In addition to a data literacy focus, the RTR curriculum is specifically designed to fully prepare residents to develop lessons based on the Virginia Standards of Learning (SOL) and RPS content-specific curriculum. Competitive Preference Priority 2 refers to implementing internationally benchmarked college- and career-ready standards. While this implies that grantees should implement the Common Core Standards, not all states have chosen to adopt the Common Core. When the Common Core State Standards initiative first began, Virginia already had in place a program that followed many of the same precepts. Because the Virginia program was established and data collection had begun, the VDOE and state board determined that continuing with the existing program would be in the best interests of Virginia students. Although Virginia is not a part of the Common Core initiative, it has participated in the structuring of the Common Core (VDOE, 2014). In fact, Virginia's online testing program was used by the Common Core State Standards Initiative as a model (Pyle, 2013 as cited in VDOE, 2014). While Virginia has not adopted the Common Core, the SOL which pre-date the Common Core standards by more than a decade have been benchmarked against the Common Core College- and Career-Ready Elementary and Secondary Academic Standards (http://www.doe.virginia.gov/testing/common_core/). **Therefore, by incorporating the Virginia SOL in its curriculum, RTR addresses Competitive Preference Priority 2.**

In addition, throughout the RTR curriculum issues of equity, poverty, and teaching diverse students are addressed, including culturally relevant and responsive teaching. During the first summer, residents are introduced to the community that RPS serves and examine major

forces in families, communities, and historical time periods that have shaped the RPS experience through the RTR Summer Seminar Series. The series continues throughout the residency year. To help defray the cost of participating in this intensive program, residents receive a living stipend and reduced tuition in exchange for at least a four-year commitment to teach in RPS.

Another challenge in preparing effective urban teachers that is specifically addressed in the RTR curriculum is the need to counter deficit perspectives that are a pervasive problem in teacher preparation and in public schools (Ayers, 2004; Gorski, 2008). The idea that teachers and schools can "fix" poor children and children of color runs deep in the U. S. (Dudley-Marling, 2013). Providing a focus on a community's assets and not its deficits is one way to get beyond deficit thinking. While well-structured opportunities to spend time in poor and otherwise marginalized communities is an important way to overcome deficit thinking, if the prospective teachers have no intention of becoming a part of such a community then exploitation is a real threat. Sending prospective teachers into such communities to observe and report, even if it helps the prospective teacher to grow, can exploit and even damage the community. Because RTR requires a four-year commitment on the part of its residents and because we are explicit about the social justice facets of our program (UTRU, 2006, 2010), we view residents as fledgling members of the communities in which they will teach and, therefore, not as agents of exploitation or cultural tourists. Therefore, in the first summer of their program residents commence a two semester-long Community Study Project designed to help them get familiar with and begin to network within their new community. Additionally, the project is designed to help them begin to recognize community assets and to recognize the importance of working with families and not just children. We further reinforce our residents' commitment to serving RPS from the very first day of their orientation into the program by asking them to develop an ethos

that articulates their values and ideals. This ethos guides the residents' work throughout the residency year and helps to sustain their passion during the many challenges they face as they learn to be effective urban teachers. (See Appendix H for examples of this ethos.)

Input 4 in the logic model is the RPS master teachers called Clinical Resident Coaches (CRCs). After an intensive summer of graduate-level coursework, residents spend an entire academic year in an RPS classroom, co-teaching alongside master urban teachers four days a week and spending at least one evening and Fridays applying theory to practice through rigorous coursework. CRCs are selected through a careful screening process that includes: (1) a written application with recommendations from administrators; (2) evidence of student learning gains and collaboration with colleagues to improve instruction; (3) strong content knowledge and pedagogical skills, including the ability to differentiate instruction to meet the needs of students with different learning styles; (4) use of formative and diagnostic assessments to improve student learning; (5) unannounced classroom observations; and (6) post-observation debriefing interviews to determine the extent to which the teacher is a reflective practitioner. CRCs participate in six full days of New Teacher Center (NTC) mentor teacher training and monthly professional development forums. These forums are designed to: (1) continue to strengthen mentoring/coaching skills learned during the formal NTC training; (2) reinforce and calibrate the use of NTC formative assessment tools and mentor protocols through the ongoing examination of these artifacts of mentor/coaching practice; (3) provide a supportive environment where CRCs can discuss the challenges they face in working with residents and engage in problem-posing/problem-solving activities; (4) identify additional training needs; and (5) provide time for reflection and practice in refining coaching skills. CRCs are released to work with their residents one period per day and provided a [REDACTED] stipend to compensate them for summer training and

the additional work they undertake in their role as teacher educators. In data collected through UTRU to evaluate our program, CRCs report that "being an RTR mentor makes me a more effective teacher." (Average response to this statement was 6.3 out of a 7-point Likert scale with 7 being very strongly agree.) **According to UTRU, RTR has the highest mentor satisfaction rate in the nation with 5.6 on a 7-point scale.**

In recruiting CRCs, RTR leverages teacher leadership capacity in RPS that has been cultivated through two highly successful initiatives. The first initiative is the META National Board Candidate Support Program conducted by the Center for Teacher Leadership (CTL) for teachers seeking National Board Certification in the four metro-Richmond school districts, including RPS. In 2001, there was only one National Board Certified Teacher (NBCT) in the entire metropolitan area. Today there are 420, with 34 awaiting their results in November 2014 and 44 accepted in the 2014-2015 cohort. RPS currently has 54 NBCTs and 17 awaiting results.

The second initiative is the VCU Clinical Faculty Program that recruits exemplary teachers who want to work with VCU student teachers and trains them to do so. In 2003, VCU and its META partners received a Virginia Department of Education (VDOE) Clinical Faculty grant to train 15 NBCTs in the NTC model of mentoring. These NBCTs then designed and piloted a two-day training for VCU Clinical Faculty (CF) based on the NTC model. The TQE-P grant that META received in 2004 has enabled VCU to dramatically expand its CF Program, helping to ensure consistency and quality in its clinical placements. Over the past ten years, 625 teachers have been trained (117 in RPS); 69 of whom are still active in RPS.

While the CRCs are not limited to NBCTs and CF, these outstanding teacher leaders provide a rich and established candidate pool from which to select the master teachers who will mentor residents during their year-long residency and this capacity can be sustained after federal

funding ends as this talent pool will remain in RPS. NBCTs, in particular, have a proven track record of knowing how to analyze their classroom practice and improving student learning (Anthony & Goldhaber, 2004), especially among low-income students. For this reason, the RTR proposal will continue to increase the number of Richmond NBCTs. However, no funds will be requested for this work. The cost of the NBC Support Program will be contributed by RPS.

In addition to the accomplished CRCs, RTR provides a site director who serves as a liaison between school sites and RTR to monitor the implementation of the program. Both our SE and secondary site directors have significant experience as RPS teachers and administrators that positions them well to ensure that the RPS curriculum and culture are represented in the training provided to all residents. For example, the site directors are responsible for the RTR Seminar Series that serves as the bridge from the VCU coursework to the practical experience in RPS, including introducing residents to RPS history, culture, curriculum, and performance expectations. The site directors also (1) conduct formal observations of the residents and provide formative assessment feedback; (2) meet at least once a semester with host school principals to discuss the RTR Program and solicit their feedback; and (3) address any concerns raised by residents, CRCs, or the principal at the school site. This careful monitoring of a resident's performance and the program's effectiveness enables RTR to be responsive to the needs of RPS in a timely and an ongoing basis.

Once hired as the teacher of record, RTR graduates also receive ongoing support and professional development opportunities, including a content-specific RPS Career Coach (CC) who works with them at least one hour each week through their first two years as teachers of record. CCs also participate in the same NTC training and monthly professional development forums as the CRCs. As noted above, the RTR mentoring and induction component for both

residents and first- and second-year teachers is aligned with the nationally renowned Santa Cruz New Teacher Center model. The NTC model has extensive data to show its positive impact on teacher retention and student achievement. Relevant NTC findings are summarized below.

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| <ul style="list-style-type: none"> • Teacher retention data showed a 94% retention rate of beginning teachers in districts using the Santa Cruz model, as compared to 50% in other districts over a seven-year period (Strong & St. John, 2001). |
| <ul style="list-style-type: none"> • A study examined test scores of elementary students of new teachers from three California school districts. In the district implementing the Santa Cruz model, 74% of new teachers had students who made test score gains in reading over the year, compared with 47% and 41% in the other districts (Fletcher, Strong & Villar, 2008). |
| <ul style="list-style-type: none"> • Students of beginning teachers involved with the Santa Cruz model showed achievement gains comparable to those of veteran teachers in the same district, despite being assigned larger proportions of low-achieving students. This finding held over a three-year period (Strong, 2006). |
| <ul style="list-style-type: none"> • A federally funded randomized controlled trial found that beginning teachers who received two years of NTC induction support produced greater learning gains when compared with those who received less intensive mentoring. These gains were the equivalent of a student moving from the 50th to the 58th percentile in reading (Glazerman, Isenberg, Dolfin, Bleeker, Johnson, Grider & Jacobus, 2010). |

In 2006, CTL received funding through a Title II Part A State Council of Higher Education for Virginia grant to become licensed to conduct the NTC mentor teacher training in Virginia. **CTL is now one of only two national training sites licensed to conduct this research-based, highly effective training.** Jan Tusing, RTR’s lead trainer and secondary mentor coordinator, is recognized as a national expert in adapting the NTC mentoring approach to the UTR model, serving as a presenter at several UTRU symposiums and most recently in a national webinar on June 17, 2014. During 2014-2015, we are supporting three CRCs and one Career Coach to attend the NTC Presenter’s Academy so that they can become licensed trainers. In this way, we are increasing capacity within RPS to offer high-quality mentor teacher training.

In addition to impressive data on the effectiveness of the NTC mentoring model on teacher retention and student achievement, the deeply reflective process that is embedded in the NTC approach to mentoring parallels the kind of analysis of teaching practice and reflection

required of teachers who achieve National Board Certification. **Therefore, in addition to increasing teacher retention and student achievement, RTR helps to increase the number of NBCTs in RPS by preparing them for the National Board process. In fact, RPS has agreed to accept all RTR graduates into its National Board cohort as soon as they are eligible to seek this advanced certification.** Because NBCTs are more effective than their peers at raising student achievement among low-income and minority students (Anthony & Goldhaber, 2004), increasing the number of NBCTs within RPS will have a positive impact on students. NBCTs also are strong teacher leaders who can and want to contribute to the profession by helping to prepare and induct the next generation of teachers (NBPTS, 2001).

Therefore, the positive impact of RTR’s approach to mentoring reaches far beyond the initial support provided to the residents. In addition, training veteran teachers as CRCs and Career Coaches not only enhances the skills of exemplary teachers, but these positions also provide meaningful leadership roles that will lead to increased retention of RPS’s most outstanding teachers. The thoughtful, deliberate development of leadership skills in RTR graduates also will ensure a strong pipeline of RPS teacher leaders for years to come.

It is through the integration of the 7 theoretical principles, inputs, and activities described above that we anticipate positive short- and medium-term outcomes described in the logic model with the ultimate long-term outcome of increased teacher retention and student achievement.

RTR 2.0: How the Current RTR Program Will Be Enhanced and Expanded Through This

Proposal: Based on strong theory and the logic model outlined above and data on RPS staffing needs, the following RTR 2.0 objectives will further refine, expand, and evaluate the work of RTR in preparing teachers for the most critical RPS shortage areas: (1) Refine and enhance the Special Education (SE) track based on the current pilot with a particular focus on strengthening

the content knowledge of SE teachers; (2) Build a pipeline of STEM candidates at the K-12 and pre-baccalaureate levels; and (3) Recruit, prepare, and support 120 highly effective special education, math, science, and English teachers for RPS high-need schools.

Objective 1: Refine the SE track based on the current pilot with a particular focus on strengthening the content knowledge of SE teachers. During 2014-2015 RTR is partnering with the VCU Department of Special Education and Disability Policy to pilot the preparation of special education teachers. Through ongoing formative assessment, including both formal and informal feedback from VCU faculty, SE residents, and RPS staff, changes will be made to the M.Ed. in Special Education. The M. Ed. program offered by VCU's Department of Special Education and Disability Policy consists of 37 credit hours that focus on special education content, methods and strategies, cultural diversity, and the foundations of educational psychology and research methods. While methods of teaching reading is a major component of the program, there is a need to further improve the preparation of special educators in academic content knowledge and the skills to deliver this content to K-12 students. Currently, the M.Ed. program addresses this need by expecting that students in the program have received that content through their undergraduate degrees, and then information about teaching methods for academic instruction in the core content areas is infused into other methods courses. However, of the 17 current RTR residents in the SE pilot, several came to the program with undergraduate degrees in fields that are not in the core content areas, including such programs as psychology, criminal justice, and international development. Another group of the SE residents are career switchers for whom undergraduate study was at least a decade prior to their enrollment in the graduate program. Clearly, this is a weakness: too many program completers in special education are ill-prepared to teach academic content or their preparation is outdated, forgotten, or incomplete.

To address this weakness, revisions will be made to the current M.Ed. program that will assure that RTR graduates have increased academic content knowledge and are *highly qualified* in the academic area they will teach. VCU faculty and RPS staff in the Office of Exceptional Education will work together to identify the changes that will be needed. Content experts in both VCU and RPS will then update specific courses within the M.Ed. Multiple factors will need to be considered in making course improvements, including changes being proposed to state licensure, changes that will happen with the establishment of the new national CAEP (Council for the Accreditation of Educator Preparation) accreditation standards, and, most importantly, the needs of RPS and the specific SE track residents.

An additional option --Highly Qualified Institutes (HQIs) for English, math, science, and social studies-- will be developed during the first project year and implemented in the following 4 years. (While we will no longer recruit social studies residents in the secondary track, there is still a need to get special education teachers *highly qualified* in all four content areas based on the Virginia Department of Education guidelines.) A unifying concept through all of the HQIs will be the importance of closely collaborating with other interdisciplinary professionals to provide the opportunities and interactions necessary for both academic subjects in the content areas and specific learning strategies for the individuals with special needs. We anticipate that the HQIs will ensure academic competence in the core content areas in working with elementary and secondary students with high-incidence disabilities. In order to accomplish this goal, the HQIs will be designed to provide expertise in one specific academic content area (i.e., English, math, science, or social studies). VCU and RPS academic content specialists will assist with identifying university-wide and school district resources and with developing and teaching the curriculum for content-specific HQIs. RTR graduates who wish to become *highly qualified* in

multiple content areas will be able to enroll in the HQIs at no cost. HQIs will be available to current RPS teachers who are not *highly qualified* at minimal costs as a way of expanding the impact of the project. These HQIs will consist of two-day workshops that provide training in the content area (knowledge) as well as instructional techniques that have been effective in delivering the content to K-12 students (skills). Effective instructional techniques will be used to model these components throughout the two days. Small group discourse and project-based learning activities will provide time to discuss ideas and experiences. A portfolio assignment will be required in each institute to provide an opportunity for students to implement what they learned and receive feedback to guide their continued professional development. The two-day workshop and portfolio assignment will total approximately 30 clock-hours, meeting the VDOE High Objective Uniform State Standard of Evaluation (HOUSSE) guidelines for *highly qualified*, thereby allowing new special education teachers to demonstrate content area competency through high-quality professional development workshops from a higher education institute (http://www.pen.k12.va.us/teaching/highly_qualified/index.shtml).

Currently there are 17 RTR residents in the SE track. We anticipate 15 SE residents in each additional year (2-4), which would result in 77 licensed, *highly qualified teachers* prepared through RTR by the end of the grant. This, along with current RPS teachers who are not *highly qualified* but who will become so through participation in the HQIs, will make a significant contribution to alleviating the current and projected need for special educators in RPS (M. Boyd, RPS Exceptional Education Director, personal communication, September 2013).

Objective 2: Build an RTR pipeline of STEM candidates at the K-12 and pre-baccalaureate levels. As described on pages 7-8, despite an intensive focus on recruiting STEM candidates and adjustments made to current VCU policies, qualified STEM applicants have been

extremely limited, especially in mathematics. Therefore, **this proposal will address Competitive Preference Priority 2** by building a pipeline of STEM teachers beginning at the K-12 and pre-baccalaureate levels through intensifying our work with faculty in the VCU College of Humanities and Sciences and expanding our partnership to include the Virginia Department of Education, the MathScience Innovation Center, and the VCU Mary and Frances Youth Center.

Since 2009, VCU has received funding from the National Science Foundation (NSF) through the Robert Noyce Scholarship Program to partner with four school districts in the metro Richmond area (including RPS) to increase the number of secondary science teachers for high-need schools. Noyce identifies talented undergraduates (Noyce scholars) interested in becoming teachers and prepares them in an immersion program with a master teacher. In 2013, VCU received NSF funding to expand Noyce to include math majors. Since its inception, RTR has worked closely with the Noyce program, leveraging funds from both programs. For example, all science (and now math) residents apply to be Noyce Scholars which provides them with an additional [REDACTED] stipend and access to content-specific teaching resources and high-quality professional development. In addition, RTR provides NTC training to the mentor teachers who work with Noyce scholars in RPS and the other three partner school districts.

VCU is home to 14 undergraduate STEM degree programs in which approximately 5,000 students (23% of undergraduates) are enrolled. In the 2012-13 academic year (AY 12-13), 19.3% of the undergraduate degrees were conferred to STEM majors. VCU has a large and diverse population of students enrolled in STEM majors, including many first-generation college students and many students from under-represented minority groups. This provides us with a large population of students from which to recruit for RTR. The VCU School of Education is currently working with the VCU College of Humanities and Sciences to create an education-

track for STEM majors who are interested in entering secondary mathematics or science education (see Coleman letter of support). With the creation of the track these students would easily transition into the Master of Teaching and RTR program.

To effectively address the need for STEM teachers, “Grow Your Own” models of teacher recruitment also are needed and have proven effective in recruiting and retaining qualified teachers in high-poverty communities (Gallegos, 1995b; Clewell and Villegas, 2001). This local approach is supported by research studies that indicate that 60% of teachers teach within 15 miles of where they grew up and 85% percent are teaching within a 40-mile radius of where they grew up; for urban teachers the figure is even higher at 88% (Boyd, Lankford, Loeb, & Wyckoff, 2005; Reininger, 2012). Based on this research, beginning with Cohort 4, we targeted those community groups already in RPS schools including Micah and Communities in Schools, as well as paraprofessionals from the MathScience Innovation Center. Partnering with RPS, we held multiple informational meetings for district paraprofessionals and substitutes. This local focus has yielded our largest (31) and most diverse group of residents to date, 39% of whom are African American. However, despite the success of our short-term efforts overall, this yielded us only 4 science and 2 math residents in Cohort 4. Therefore, it is clear that long-term strategies that target RPS middle and high school students who show promise in STEM areas also are needed if the district is to ensure an adequate supply of highly qualified STEM teachers.

The VDOE has sought to build this long-term pipeline by training teachers throughout the state in the nationally recognized South Carolina Teacher Cadet Program (called Virginia Teachers for Tomorrow (VTFT) in our state). Replicated by 23 other states, the Teacher Cadet Program is an innovative teacher recruitment strategy designed to attract talented young people into the teaching profession through a challenging introduction to education taught as a high

school class. The program provides high school students with insight into the nature of teaching, the problems of schooling, and the critical issues affecting the quality of America's schools. To be eligible, students must have at least a 3.0 average in a college preparatory curriculum, be recommended by five teachers, and submit an essay on why he/she wants to participate in the class. Through partnerships with local colleges and universities, high school students in VTFT may be provided with dual enrollment or college credit for successfully completing the year-long course that includes opportunities for students to teach preschool, elementary, middle, or high school students. To date, 123 high schools in Virginia participate in the VTFT Program, however, there are none in RPS. RTR will work with the VDOE to begin a VTFT in each RPS high school using outstanding STEM teachers as the instructors of the high school class. We will start with two high schools in which RTR science and math graduates are teaching because they will be able to identify and recruit promising math/science students for VTFT. VCU will provide college credit for RPS students who complete the VTFT course to encourage them to attend VCU and eventually to enter RTR.

In addition to creating a VTFT Program in all RPS high schools, RTR will partner with the Mary and Frances Youth Center and the MathScience Innovation Center to create specialized programming for RPS elementary, middle, and high school students. Each summer the Mary and Frances Youth Center offers the Summer Discovery Program which provides one week long summer camps for middle school age children. This fun, challenging, and creative program offers a variety of in-depth experiences in STEM, the arts, and health sciences. These classes are either half or full day and are typically taught by VCU faculty members, university students and local professionals in university classrooms and laboratories on VCU's Monroe Park and Medical Campuses. RTR will work with the Mary and Frances Youth Center to expand their

STEM summer activities targeting RPS students. The goals of this programming would be to increase students' awareness of and interest in STEM fields and careers thereby assisting in the national effort to alleviate under representation of minorities in all STEM professions. While there is typically a fee associated with participation in these camps, the RTR collaborative activities will be at little or no cost for the participating RPS students.

Richmond is fortunate to have the nationally recognized MathScience Innovation Center (MSiC) whose mission is to inspire and equip K-12 students with the skills, knowledge, and dispositions needed for college and career success in STEM fields. For the 13 school divisions (which includes RPS) within their forty-eight year old educational consortium, the MSiC uses its regional leadership role in the areas of educational and scientific trend analysis, professional development of educators, innovative student programs, seminars, and conferences on STEM related topics. Annually, the MSiC touches the lives of more than 130,000 students in grades K-12 and 2,000 educators from the Central Virginia region, of whom approximately 18% are from RPS. For the past 48 years, RPS financially supports MSiC STEM programming for their teachers and students which includes an annual Fellows Program (professional development) for in-service teachers and Saturday Academies (during the academic year), Camp Innovation (a three week summer camp), and special activities at the MSiC including science fairs, design competitions, and scientific investigations for students. The partnership between RTR and the MSiC will increase the access of middle and high school students to STEM classes, field experiences, and leaders in the STEM industries. In addition, the partnership will increase the number of RPS teachers who are able to participate in STEM-based professional development opportunities. Furthermore, as the partnership grows we will investigate opportunities for training and professional development for pre-service teachers in the RTR program.

Objective 3: Recruit, prepare, and support 120 highly effective special education, math, science, and English teachers for RPS high-need schools. Based on the most recent data from RPS (see page 6), our efforts to address the need for effective social studies teachers appear to have made an impact in greatly reducing the number of provisionally licensed teachers in this area. For this reason, RTR will no longer recruit and prepare social studies teachers for RPS. As part of RTR 2.0, we will recruit and prepare 15 special education and 15 secondary residents each year for Years 1-4. Math and science recruitment will be the priority in the secondary track; however, we also will recruit for English residents as this is still an area of high-need in RPS.

Continuing to recruit and prepare teachers for RPS in critical shortage areas will not only help the school district meet its staffing needs, it also will allow us to continue to study the impact of the residency model on teacher retention and student achievement. With the end of our current grant in June 2015, only Cohort 1 will have completed their 3-year service agreement (see Table 4). Therefore, the ability to continue to evaluate this work is imperative if we are to make a strong case for state and local funding. (See JLARC recommendation on pages 8-9.)

Table 4. Year that Each Cohort Serves as the Teacher of Record for the First Time (TOR) and Completes Service Agreement

2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
Cohort 3 TOR	Cohort 4 TOR	Cohort 5 TOR	Cohort 6 TOR	Cohort 7 TOR	Cohort 8 TOR
Cohort 1 completes 3- year service agreement	Cohort 2 completes service agreement	Cohort 3 completes service agreement	Cohort 4 completes service agreement	Cohort 5 completes service agreement	Cohort 6 completes service agreement
		Cohort 1 5 years	Cohort 2 5 years	Cohort 3 5 years	Cohort 4 5 years

Financial Commitment of Partners: RTR enjoys strong support within VCU, RPS, and the Richmond business community. The financial commitment of individual partners is reflected not only in the amount of support, but also the type of support provided. Support for RTR within

VCU is evidenced not only by a special tuition rate for both in-state and out-of-state students that is 61.1% of the regular tuition rate, 3 hours of university credit for RPS students who successfully complete the Virginia Teachers for Tomorrow Program, and the contributed time of faculty and administrators, but also by the visibility RTR has been given by the President's office and the School of Education (SOE). For example as part of a new community-engaged focus on the VCU website, RTR was featured during May 2014, only the third program in the entire university selected for this recognition. In addition, in the national accreditation visit completed in April 2014, the Board of Examiners concluded that the SOE had met all NCATE standards, with no "Areas for Improvement" cited. The SOE received four commendations. Two of the four were related to RTR: *(1) Federally funded programs such as the Richmond Teacher Residency Program and the Noyce Scholars Program provide candidates with a unique year-long experience in high need schools; and (2) The Center for Teacher Leadership is one of two licensed entities to train clinical faculty on the New Teacher Center model out of Santa Cruz, CA. This is a nationally respected and highly researched mentoring model. The Clinical Faculty training provided through the Center for Teacher Leadership exceeds state requirements.*

The match from RPS represents: (1) one period of release for CRCs to work with residents; (2) reallocation of time for the RPS teachers selected to teach the Virginia Teachers for Tomorrow class; (3) all costs associated with the RPS New Teacher Institute, ongoing professional development for teachers, and the RPS Leadership Institute; (4) all costs associated with support for teachers seeking National Board Certification; (5) contributed time of the RPS Director of Professional Development who is responsible for coordinating the RPS mentoring program and leadership development and who will oversee and monitor the work of the grant within RPS; and (6) contributed time of school and district administrators. If funded, this

proposal will provide Superintendent Bedden with the data needed to expand RPS support and to solicit additional resources from Virginia policymakers and the business community.

The support of the business community is evident in the following ways: (1) Main Street Realty provides one month free rent to residents in the Loft Apartments, as well as a fully-equipped seminar room where residents can hold classes, plan lessons together, and socialize; (2) The Greater Richmond Chamber of Commerce hosts a welcoming reception for each new RTR cohort of residents in August; (3) The Greater Richmond Chamber Foundation provided funding to update the RTR website and increase our social media presence; (4) Venture Richmond provides complimentary hotel rooms for candidates when they attend the fall and spring Selection Day and trolley car tours of Richmond; and (5) Union First Market Bank currently provides \$25K each year to defray the housing costs for residents in the Loft Apartments. In this proposal, the business community has pledged to increase its support to \$100,000 each year in Years 2-5, quadrupling the financial support provided in the past (see Ukrop letter of support in Appendix G).

As noted in letters of support (see Appendix G) from Senators Mark Warner and Tim Kaine, Representative Bobby Scott, Dr. Stephen Staples, Virginia's Superintendent of Public Instruction, Ms. Anne Holton, Secretary of Education for Governor Terry McAuliffe, Dr. Peter Blake, Executive Director of the State Council of Higher Education in Virginia, and Ms. Meg Gruber, President of the Virginia Education Association, there is strong support among Virginia's state and national leaders for RTR. They believe that the urban teacher residency model holds great promise as a long-term, sustainable approach to meeting the staffing needs of urban schools, reducing teacher attrition, and increasing student achievement. Momentum is already building within the state to support urban teacher residency programs as evidenced by

the June 9th JLARC report on how to improve low performing schools in which RTR was featured as a promising long-term strategy for staffing low performing schools. As a follow up to the JLARC report, Ms. [REDACTED], Legislative Fiscal Analyst for the Senate Finance Committee, is working to identify a date for Dr. Terry Dozier, RTR's director, to make a presentation to the Committee. The longitudinal data we will be able to provide through this proposal will help to consolidate the political support necessary to generate more local and state funding streams that will enable RTR to continue after federal funds end.

We developed a conceptual financial model to match expenditures with potential resource streams to continue RTR and RTR 2.0 after the grant ends. Our model includes the three major expenditure categories associated with residency programs: (1) Residents (tuition and stipends); (2) Mentors (stipends and professional development); and (3) Program (staff, recruitment, and evaluation). Our resource streams include VCU (see letters from Dean Christine Walther-Thomas and President Michael Rao), Richmond Public Schools (see letter from Superintendent Dana Bedden), the Virginia State Department of Education (see letter from Dr. Stephen Staples), and the Richmond business community (see letters from Brian White, Jim Ukrop, Venture Richmond, and the Chamber of Commerce). In addition, we will explore other sources of funding that include Americorps and private foundations. We anticipate that by the end of Year 3 of the proposed grant we will be able to finalize the model with concrete commitments from a variety of sources as there will be evaluation data to support current and new investments.

As described above, RTR enjoys strong support among all partners and increasingly among policymakers in Virginia. Our greatest challenge is sustaining the program long enough to provide data needed to translate this support into local and state funding streams. Despite a

still tenuous economic recovery, **we are not seeking a waiver of the 100% match requirement.** The fact that so many individuals and organizations have already committed a significant amount of financial and in-kind support despite our lack of longitudinal data speaks volumes about the quality of the RTR Program and the strength of the RPS/VCU partnership. RTR is not a "paper partnership." VCU and RPS have collaborated to improve student learning through the development of teachers and leaders for many years and have a strong track record of sustaining and expanding the work of the partnership. Current RTR collaboration is real and significant. It includes the participation of more than 20 RPS professionals and 20 VCU professionals (from both the School of Education and the College of Humanities and Sciences) in vetting and assessing candidates during the two annual recruitment cycles and Selection Day activities. Dr. Darlene Currie, the RPS liaison, attends our monthly RTR Leadership Team meetings and has been part of each team that we send to all UTRU and NTC conferences. For our original grant in 2010, Dr. Currie served as the liaison with RPS staff, circulating multiple drafts of the proposal, suggesting refinements, and negotiating roles, responsibilities, and release time of RPS staff who carry out the RTR Program. She has continued to play this role for RTR 2.0. As noted in their letters of support, Dean Walther-Thomas and Superintendent Bedden have pledged to work in partnership to secure additional funding for RTR with state leaders and the business community so that RTR can be sustained once federal funding ends. In addition, the business community will be quadrupling its financial commitment.

Quality of Management Plan: The work plan below represents a thorough and thoughtful plan to implement all project goals and objectives on time and within budget.

<p>Project Goal: To further refine, expand, and evaluate the impact of the Richmond Teacher Residency Program on teacher retention and student achievement in the most critical RPS shortage areas.</p>
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<p>Objective 1: Refine the SE track based on the current pilot with a particular focus on</p>
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strengthening the content knowledge of special education teachers.		
Major Project Milestones	Timeline	Persons Responsible
Obtain recommendations from VCU and RPS content specialist to strengthen content preparation in the M. Ed. Program and to develop the HQIs.	Fall 2014/Spring 2015	Bartholomew
Collaborate with VCU and RPS experts to hire HQI instructors and to develop academic content (e. g, English, math, science, social studies) for HQIs.	Spring 2016	Bartholomew/Scott
RTR and RPS recruitment and selection for HQIs.	Spring 2016	Batalo/Waddell/Boyd
Launch HQI Program for RTR and RPS teachers.	Summer 2016	Bartholomew/Batalo/Waddell
Provide ongoing HQI support to RTR and RPS.	Fall 2016-Summer 2019	Bartholomew/Batalo/Waddell/Boyd
Objective 2: Build an RTR pipeline of STEM candidates at the high school and pre-baccalaureate levels.		
Major Project Milestones	Timeline	Persons Responsible
Work with VDOE to implement the VTFT Program in RPS.	Fall 2014	Dozier/Fuqua (VDOE)
Identify two RPS schools to pilot the VTFT Program.	Spring 2015	Dozier/Currie
VTFT instructors complete Teacher Cadet training.	Summer 2015	RPS master teachers
Launch VTFT Program	Fall 2015	RPS master teachers
Add VTFT Program to remaining RPS high schools (one per year)	Fall 2016, Fall 2017, Fall 2018	Dozier/Currie
Propose specialized education tracks in each of the undergraduate STEM degree programs	Academic year 2014-2015	Hargraves
Approval of education tracks in selected STEM majors	Fall 2015	Hargraves
Recruit a new cohort of pre-service teachers from the VCU STEM majors for RTR	Spring 2016, Spring 2017, Spring 2018	Hargraves
Develop and implement summer STEM camp programming for the Mary and Frances Youth Center	Summers of 2015, 2016, 2017, and 2018	Hargraves
Provide STEM programming for RPS students at MSiC	AY 2014-15 thru AY 2018-19	Hargraves/Freeman
Objective 3: Recruit, prepare, and support 120 teachers (4 cohorts of 30 teachers each) in RPS critical shortage areas.		
Major Project Milestones	Timeline	Persons Responsible
Purchase ATS software to better target RTR recruitment efforts and track	October 2014	Cherry

candidates.		
Conduct Selection Day assessment activities	October 2014 & February 2015	Cherry
Provide tutoring support for required licensure tests	Spring 2015	Cherry/RTR graduates
Recruit CRCs	Spring 2015	Tusing/Batalo
Residents begin their master's coursework	Summer 2015	Residents/VCU faculty
Place residents with CRCs for residency year	Summer 2015	Tusing/Batalo
Provide NTC training & ongoing support to CRCs and CCs	Summer 2015--Spring 2016	Tusing/Batalo
Residents complete master's coursework	Spring 2016 (secondary track) Summer 2016 (SE track)	Residents/VCU faculty
RPS hires RTR graduates	Spring/Summer 2016	RPS HR Director
Provide ongoing support for RTR grads for at least the first two years of their careers	Fall 2016--Spring 2018	Career Coaches

Note: Three additional cohorts of 30 residents will complete the same process outlined above.

Performance Feedback and Continuous Improvement: Over the past four years, RTR has been developed through continuous improvement methods focusing on the inputs and activities depicted in the logic model on page 12. Data on the program are collected through mid- and end-of year UTRU surveys and focus groups with residents, CRCs, and principals conducted as part of our evaluation plan. In addition, stakeholder meetings are held twice a year to review data and to solicit suggestions for changes from all RTR participants and partners. Feedback from these various methods has led to significant changes to RTR. For example, after the first year of implementation, data from the UTRU surveys revealed the need to develop an ongoing vehicle to provide interaction with RTR staff before the residency year and to better prepare residents for the transition from VCU coursework to their work in RPS classrooms. As a result, the RTR Summer Seminar Series and monthly seminars during the residency year were added. The community project has been revised each summer to better meet the needs of the residents and

the goals of the project. In addition, monthly after school workshops designed to help teachers become more effective in designing and implementing engaging lessons to better prepare their students for the SOL tests have been added. The development of these workshops grew out of a specific request from our first cohort of RTR graduates who felt the need to enhance their skills in this area. Beginning in spring 2013 and continuing into spring 2014, the workshops explore topics such as using Understanding by Design to create purposeful standards-based curriculum; analyzing SOL test language so teachers can learn how to infuse the language into the curriculum without teaching to the test; and equitable teaching practices. RTR's immediate response to this request and our evaluation data demonstrates our ongoing commitment to assessing and responding to the needs of our graduates and the effectiveness of our program.

Continuous improvement also is assured through the RTR Leadership Team that meets at least once a month to monitor the progress of RTR and review ongoing formative assessment and evaluation data to determine needed revisions to project components. The members of the team consist of the RTR director, RPS liaison, SE and secondary track curriculum directors, SE and secondary track site directors, and SE and secondary track mentor coordinators. In addition, CTL oversees the day-to-day governance and management of RTR. While VCU serves as CTL's fiscal agent, CTL is not a part of the School of Education's teacher preparation program and has a track record of bridging K-12 and higher education through coordination of META, a partnership between VCU and the four local school districts (including RPS).

Qualifications of Key Personnel and Responsibility for Project Implementation:

Therese (Terry) A. Dozier, Project Director: Dr. Dozier will oversee all aspects of the project. She will be responsible for ensuring that all project activities are developed and implemented according to prescribed timelines, directing the efforts of project staff, ensuring that

all funds are expended in a timely manner, and representing the project at the Project Director's meeting. Dr. Dozier's background makes her uniquely qualified to ensure the quality of services and ongoing collaboration with RPS. Dr. Dozier is an associate professor in the School of Education, the director of the Center for Teacher Leadership, and the chair of the Metropolitan Educational Training Alliance. Dr. Dozier currently serves as the director of RTR and has been a successful Principal Investigator of several large federal grants, including the \$5.9 million META Teacher Development and Retention Project, a TQE-P grant funded in 2004. The RTR Program capitalizes on the capacity that has been built at CTL, VCU, and RPS through the META Project and the current RTR project and expands their impact. Dr. Dozier also served as a Co-PI for Project ALL, a federal school leadership grant that prepared teacher leaders to become assistant principals and principals in RPS secondary schools using case study and simulation methodology. Dr. Dozier's experience with RTR, Project ALL, and the META project provide her with rich knowledge of key personnel and direct experience in navigating issues that arise in working with RPS and VCU faculty. In addition, Dr. Dozier's experience in the area of teacher quality provides extensive expertise to the project, as well as broad opportunities to disseminate the results of the project to state and national audiences. Dr. Dozier has worked closely with the Governor's Office and the Virginia Department of Education on implementation of Virginia's \$13.5 million TQE grant that created the Virginia Standards of Professional Teaching Practice. Prior to joining the VCU faculty, Dr. Dozier served as Senior Advisor on Teaching to former U.S. Secretary of Education [REDACTED]. In this capacity she served as the Clinton Administration's top policy advisor on all teaching issues. Dr. Dozier also led the Department's teaching initiative with primary responsibility for the development and implementation of a strategic plan to improve teacher recruitment, preparation, and ongoing professional

development, including overall leadership in research, evaluation, and data collection on teacher quality. While teaching world history in South Carolina, Dr. Dozier was named the 1985 National Teacher of the Year and has nineteen years of classroom teaching experience in settings as diverse as inner-city Miami, suburban South Carolina, and the Singapore American School.

Dr. Darlene Currie, RPS Liaison: Dr. Currie, RPS Director of Professional Development, will serve as the RPS liaison to ensure fidelity to the RTR goals and outcomes within the context of RPS. Dr. Currie began her career as a secondary English teacher in high-needs schools in Pittsburgh, Pennsylvania. She served as the University Supervisor for student teachers and a Community College Continuing Education Instructor prior to becoming an elementary school principal and the Coordinator of Elementary Education, Exceptional Education and Student Services. With her experience in higher education and 21 years as an RPS principal and central office leader, Dr. Currie brings to the RTR Program invaluable knowledge of and strong working relationships with key RPS stakeholders.

Dr. Christina Bartholomew, Curriculum Coordinator (SE Track) Dr. Bartholomew serves as the University liaison for the new RTR special education track. In this capacity she will work with VCU faculty in the Department of Special Education and Disability Policy, CRCs, and other RPS staff to implement the SE pilot and revise the learning experiences and the SE curriculum. Dr. Bartholomew has an extensive background in teaching SE content at the master's level at both James Madison University and VCU. She currently teaches courses on collaboration in schools, instructional methods, universal design for learning, and differentiation. For the past several years she has supervised students in their externships across several schools in RPS and surrounding counties working closely with both the teaching candidates and their supervising teachers. Dr. Bartholomew has published scholarly articles related to mentoring and

coaching models, universal design, and self-determination, and has presented at national conferences on the creation of effective sustainable school partnerships through university services and the effectiveness of coaching in closing the research gap in under-performing schools. Dr. Bartholomew has collaborated on projects in under-performing schools through implementing and revising multiple professional development and coaching sessions on co-teaching and collaboration in core subject area classes. Prior to teaching at the collegiate level Dr. Bartholomew taught special education in high-poverty elementary and secondary schools.

Ms. Evelyn Waddell, Site Director (SE Track): Ms. Waddell will serve as the liaison between the RPS school sites, VCU, and CTL. Ms. Waddell brings 26 years of experience as a special education teacher to this position. She also brings experience and expertise in educational leadership. Her administrative experiences include Assistant Director of the Hospital Education Program (a state operated program within the VDOE), and 7 years as an RPS principal of an alternative school for students with disabilities. As the SE Site Director, Ms. Waddell's responsibilities will include: (1) communicating and collaborating with RTR staff, the university supervisor, the curriculum director, and RPS principals to discuss and resolve issues relative to the implementation of the SE track; (2) communicating with and addressing issues raised by the residents; (3) providing onsite support of the residents through observations and feedback; (4) designing and implementing the RTR Seminar Series that will prepare residents to become teachers of record in RPS; and (5) developing and implementing revisions to the pilot SE track.

Dr. Cecilia Batalo, Mentor Coordinator (SE Track): Dr. Batalo will serve as the lead trainer for the special education CRCs and will be responsible for the day-to-day implementation of the mentoring component of the SE track. Dr. Batalo brings a wealth of experience and expertise to this position. She taught SE for 23 years in three local school districts and in various

high-need schools. Her administrative experience includes serving as a coordinator for SE programs in 14 schools and coordinating a homebound and IEP online program. Dr. Batalo helped to develop the SE pilot and, along with other RTR staff, will be responsible for developing revisions based on the first year implementation of the pilot program. Dr. Batalo has an undergraduate degree in Special Education, a masters' degree in Counseling and Guidance, a postmasters' certificate in Educational Leadership, and a doctorate in Special Education and Disability Policy. As the SE Mentor Coordinator, she will: (1) oversee the selection process for identifying special education CRCs; (2) facilitate the monthly professional development meetings for CRCs; (4) monitor the effectiveness of CRCs; (5) and coordinate closely with the SE site and curriculum directors to ensure that the needs of residents are being met by the CRCs.

Dr. Roslyn Hargraves, STEM Pipeline Coordinator: Dr. Hargraves currently holds a joint appointment in the VCU Schools of Education and Engineering where her primary responsibilities and research interests focus on STEM education. She has worked collaboratively with colleagues from several of VCU's schools and the College of Humanities and Sciences on improving the retention and graduation of STEM majors (undergraduate and graduate), increasing the pipeline of K-12 students considering and entering STEM degree programs, STEM program development, and STEM education research (pedagogy and evaluation). She has served on the National Academy of Engineering Committee on Engineering Education, the STEM Advisory Council of Richmond's Future, and the Board of Directors of the Richmond Area Program for Minorities in Engineering. She is currently serving as a member of the Technical Workgroup for an NSF grant "An Investigation of GI Bill Recipients with Disabilities of STEM as a Viable Career Option." Dr. Hargraves has directed several STEM outreach,

training, and mentoring programs for over 20 years through a variety of institutions including universities, non-profit organizations, professional societies, and volunteer organizations.

Full resumes for the personnel above and all remaining RTR staff, along with faculty who teach RTR coursework for both the M.T. and M.Ed. degrees, can be found in Appendix F.

Quality of the Evaluation Plan: Dr. Lisa Abrams is an Associate Professor of Research and Evaluation and will direct the implementation of the evaluation of RTR 2.0. Dr. Abrams has a Ph.D. in Educational Research, Measurement, and Evaluation from Boston College and teaches graduate courses in program evaluation and measurement in the VCU School of Education. Dr. Abrams has extensive experience designing and conducting program evaluations for a variety of funded programs in the areas of teacher professional development and teacher quality (see vitae in Appendix F). Dr. Abrams has also directed several funded projects and currently serves as the Principal Investigator on an NIH funded Science Education Partnership Award (#R25 OD010984-05) teacher development grant designed to support instruction delivery of research content and skills in science classrooms. In 2013-14 she completed several evaluation studies at the state-level that examined the alignment of the Virginia Standards of Learning assessments in mathematics and science with the Standards of Learning content and curriculum frameworks in these areas. In addition to Dr. Abrams, the evaluation team for the project will include two doctoral students who have evaluation experience and will support Dr. Abrams' work.

The evaluation of RTR/RTR 2.0 is designed to provide performance measures as well as formative and summative information regarding the critical aspects of program objectives and intended outcomes. Consequently, the evaluation design will focus on both the implementation of the program and on the proposed activities (formative) as well as the expected outcomes (summative). In addition, the evaluation design of the five-year project includes the use of

mixed-method data collection approaches and the use of multiple data sources (e.g., residents, CRCs, RTR program staff) in an effort to triangulate and cross-validate the evaluation findings. The quantitative and qualitative results of the evaluation will be used by the RTR leadership team to inform implementation and activities as well as to identify any needed modifications while the program is ongoing. The evaluation plan affords a unique opportunity to examine the long-term impacts of the initial RTR program as graduates are in different stages of beginning teaching in RPS, while the expanded RTR model (i.e., RTR 2.0) is being implemented.

The evaluation plan involves several different approaches that focus on immediate information needs and longer-term outcomes in an effort to measure program effectiveness. The evaluation includes descriptive and comparative design elements as well as quantitative and qualitative methods of data collection to provide for a comprehensive assessment of the RTR program. The primary aims of the evaluation include: (1) conducting original data collections to obtain formative information from program participants and stakeholder groups to inform implementation and program refinement; (2) collecting summative information using existing record data obtained from VCU, teacher attrition and student achievement data obtained from RPS, as well as other quantitative measures to determine the extent to which the RTR 2.0 project goals were achieved; and (3) implementing a longitudinal quasi-experimental study of the four RTR cohorts from the initial RTR program to determine long-term program impacts on student achievement. An evaluation data collection summary table can be found in Appendix H. The following describes the evaluation plan and the specific approach for each program objective.

Objective 1: *Refine the SE track based on the current pilot with a particular focus on strengthening the content knowledge of SE teachers.* **Outcomes: Increased content knowledge among SE track participants and increased numbers of SE graduates who meet**

licensure requirements and are *highly qualified* compared to non-RTR trained teachers. To determine the impact of the RTR 2.0 program on the content knowledge of the SE track participants the evaluation will use a comparative design to measure increased content knowledge according to several years of results from the VCU School of Education Clinical Evaluation Continuum. The continuum was designed to assess pre-service teachers at the half-way and end-points of their practicum or student-teaching experience and is used with pre-service teachers in the RTR 2.0 (secondary and SE tracks) and traditional teacher preparation program. The continuum measures several key areas of pre-service teacher development with an emphasis on content knowledge and application of knowledge to developing lesson plans and instructional delivery. The internal consistency, or reliability indices, for the continuum are high, ranging from .897 to .966 across the five sub-sections comprising the measure (e.g., creating and maintaining a positive and safe learning environment; planning for instruction; engaging and supporting students in learning; assessing student learning; developing as a professional). The continuum has been adapted to include criteria to measure several of the Council for Exceptional Children (CEC) core competencies for those pre-service teachers with an SE focus. Clinical evaluation continuum data will be obtained from the SOE Office of Assessment for each RTR 2.0 cohort to determine if the percentage of “at target” ratings have increased for those in the SE track compared to 2011-2014 yearly baseline ratings obtained from students in our traditional teacher preparation program. Another measure of content knowledge is the use of a portfolio assessment, which has been a component of the SE program since 2010. The consistent implementation of the portfolio assessment over the past four years allows for the collection of baseline portfolio assessment ratings which are centrally stored in a data management and reporting system – RGrade – which is maintained by the SOE Office of Assessment. The

portfolio ratings of the RTR 2.0 SE track cohorts can be compared to baseline data using parametric statistical procedures to determine if there are significant differences between the assessment results among the SE residents and the assessment results of students enrolled in the traditional SE track in prior years. The rates of teachers meeting licensure requirements and highly qualified designations will be tracked over the implementation of the project to determine if the program goals have been met. Pre-and post-surveys will be implemented to evaluate the effectiveness of the Highly Qualified Institutes from the participants' perspectives. These survey measures will be developed in year 1 and the data will be used to refine the implementation of the HQIs over the course of the project.

Objective 2: *Build an RTR pipeline of STEM candidates at the K-12 and pre-baccalaureate levels.* **Outcomes: Increased numbers of high school students who are interested in careers in teaching in the STEM fields.** RTR 2.0 expands the initial RTR program to focus on engaging the next generation of STEM K-12 educators. In order to build the pipeline of STEM teaching candidates the proposed activity includes implementing the Virginia Teachers for Tomorrow (VTFT) program in RPS. To examine the impact of the VTFT program on program participants, the evaluation design will include tracking course completion rates and college enrollment rates. To measure participants interest in the education field and any changes that may result from participation in VTFT, the KUDER Career Survey (KCS) will be administered to program participants using a pre-post design. The KCS compares respondents' similarity with groups of individuals employed in sixteen different career clusters and yields a cluster score for each vocational area. The KCS has been shown to be reliable with measures of internal consistency ranging from .83-.92 (Ihle-Helledy, 2011) and has been used with high school students to measure career interests in STEM-related fields (Franco, Patel & Lindsey, 2012). In addition, to

provide formative information to VTFT program staff, surveys and 1-3 focus groups will be conducted with the student participants about their experiences in order to refine and improve implementation. The focus group sessions will be based on a multiple-category design and guided by a semi-structured protocol (Krueger & Casey, 2009). RTR 2.0 also includes an emphasis on supporting elementary, middle, and high school students' interest in STEM education through the partnership with the Mary and Frances Youth Center and the MathScience Innovation Center. The evaluation design will include measures of implementation to support continued program improvement and impact. Interviews with program staff and other key stakeholders will be conducted to identify any needed changes in program delivery. The Student Attitudes toward STEM (S-STEM) surveys will be used to measure elementary, middle, and high school students' attitudes toward science, mathematics, engineering and technology, 21st century skills, and careers in STEM fields (Faber, Unfried, Weibe, & Corn, 2013) using 5-point Likert scale response options. The S-STEM has been used in informal science settings, has been validated for use with elementary, middle and high school students, and was found to have a sufficient reliability ($\alpha = .83$). The S-STEM will be administered using a pre-post design.

Objective 3: Recruit, prepare, and support 120 highly effective special education, math, science, and English teachers for RPS high-need schools. Outcomes: Well-prepared and effective teachers that remain in RPS high-need schools.

Pre-Service Preparation: At the core of RTR 2.0 is the delivery of a teacher preparation model that is designed to be more effective in preparing teachers for the unique challenges of working in urban schools. A central aim of the evaluation is to examine the level of preparedness of RTR 2.0 participants for teaching. The primary approach used to determine the effectiveness of the RTR 2.0 program in the area of teacher preparation will include a comparison of program

participants with non-participants (i.e., students in traditional Masters teacher preparation programs) on outcomes related to preparation: teaching effectiveness, efficacy, and graduation rates. To determine the impact of participation on teaching effectiveness, VCU Clinical Evaluation Continuum ratings of residents and M.T. students in the traditional preparation program will be compared using parametric statistical procedures to determine if statistically significant differences are evident between the two preparation programs. To evaluate the extent to which participation in the RTR 2.0 program enhances the efficacy and effectiveness of pre-service teachers, the Teachers' Sense of Efficacy Scale (TSES) (Tschannen-Moran & Hoy, 2001) will be administered to program participants and to a random sample of non-participants as described above. The TSES has been used to measure the efficacy of pre-service teachers and includes three sub-scales (student engagement, instructional strategies, and classroom management). Scale reliabilities are high, with alpha levels ranging from .87 to .94 (Tschannen-Moran & Hoy, 2001). Parametric statistical procedures will be used to determine if differences are evident between RTR participants and non-participants on the TSES and the three sub-scales. Effect sizes (i.e., Cohen's *d*) will be calculated for continuous variables. The TSES administration will be coupled with mid-year and end-of the year surveys designed to measure resident and Clinical Resident Coach perceptions about residents' preparedness for teaching. These same measures will be administered to an M.T. comparison group using the same pre-post design. This design provides measures of change over the residency/student teaching experience and allows for comparisons with another traditional model of teacher preparation. Praxis scores (GPRA measure) for RTR participants will be compared with that of pre-service teachers that were enrolled in the traditional program.

Teacher Retention in RPS: To evaluate the extent to which program participants remain in

RPS high-need schools, short-term and long-term performance measures of persistence and retention (GPRA measure) will be collected for participants in each RTR and RTR 2.0 cohort. These data will be collected for the 2.0 cohorts and the initial RTR cohorts as they continue in RPS classrooms. This will allow for a longitudinal study of retention data that extends beyond the first five years teaching – a critical benchmark in the teaching profession. It is well documented that the first five years of teaching is a critical time for beginning teachers; according to Smith and Ingersoll (2004) between 40-50 percent of new teachers will leave the profession within the first five years. It will be possible to track the rate of retention for RTR participants due to the program documentation requirement of their teaching placement and the established partnership between VCU and RPS. The rates of attrition for RTR/RTR 2.0 graduates will be compared with those of non-RTR graduates with similar characteristics (e. g., teaching assignment, grade level, content area) in RPS.

Effective Mentoring Support for RTR 2.0 Graduates: Beyond the year of residency, RTR 2.0 includes two years of mentoring/coaching support for beginning RPS teachers based on the NTC induction model. To measure the effectiveness of the mentoring model, surveys will be administered to several stakeholder groups, including beginning teachers and their Career Coaches, during the first and second year of the induction support. The Beginning Teacher Survey will be adapted from several existing measures including the National Center for Educational Statistics School and Staffing Survey (SASS; US Department of Education, National Center for Education Statistics), the New Teacher Center Induction Survey (Hermann, 2010), and the Teachers' Sense of Efficacy Scale (TSES; Tschannen-Moran & Hoy, 2001). The survey will be designed to measure constructs associated with teacher attrition including school climate, administrative support, satisfaction with their teaching assignment, as well as specific

components of the NTC mentoring model and teaching efficacy. In addition, the survey will address other types of support available to RTR 2.0 graduates including participation in professional learning communities and summer workshops. Career Coaches also will be surveyed about their experiences in the mentoring program. The Career Coach Survey and the RTR 2.0 Beginning Teacher Survey will share a common set of core items to allow for comparisons about the type and focus of mentoring activities across the two stakeholder groups. Unique identifiers will be used in order to link the survey data across the first two years of teaching. Aggregate results from both surveys can be used to inform programmatic decisions and inform mentoring activities by the Career Coaches in the second year of support. In an effort to obtain comparative information about the effectiveness of participation in RTR 2.0 in combination with the two-years of induction support, a stratified random sample (according to subject area) of comparison first and second year teachers will also be included in the survey administration. These survey data will be supplemented by individual interviews with a random sample of RTR 2.0 graduates. As part of the mixed-method approaches to data collection with all residents (i.e., surveys, focus groups) individual interviews will be conducted with a random sample of roughly half of each cohort (n=10-15). The interviews will be conducted at two time points, at the beginning and end of the residency year, for a total of 20-30 interviews per cohort. To examine the longer-term impact, the original interview sample for each cohort will be followed and interviewed twice (i.e., beginning and end of the school year) during each year after completion of the residency year. These qualitative data will be used to provide an authentic look into the continuing development of beginning teachers and will provide insight into their formation of pedagogical thinking and commitment to the profession.

Impact on Student Achievement: A central aim of RTR 2.0 is to effectively prepare teachers

for high-need urban secondary schools in ways that lead to improved outcomes for students. Like most states, Virginia implements a statewide testing program to determine the degree to which students have acquired the knowledge and skills specified in related Standards of Learning (SOL). Criterion-referenced standardized subject area tests are administered in grades 3-8 and end-of-course assessments are administered for the high school grades in both standard and alternative/modified forms. The impact of the RTR/RTR 2.0 program on student achievement will be examined by comparing student achievement outcomes of RTR/RTR 2.0 graduates with two different comparison groups: a matched non-RTR/RTR 2.0 beginning teacher group and a subject-area matched veteran teacher group. Using two comparison groups will address potential challenges with finding viable first and second year teacher matches that may result from attrition or the lack of a comparable setting. This approach also improves the statistical power of the analyses. This quasi-experimental design will allow for an examination of the initial impact of the revised RTR model (2.0) and supports an in-depth longitudinal study of program impact on student achievement. Due to FERPA and RPS policies it is not possible to link school-level or teacher-level data with student-level information without parental consent; consequently hierarchical analytical methods cannot be used. To analyze and interpret yearly student achievement data, regression analyses and effect size estimates will be used. To study the long-term impact, time-series procedures and a longitudinal analysis of the slope of achievement scores across several years will be used to fully investigate the program's impact on student achievement.

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