

W.K. Kellogg Foundation Community Engagement Scholarship Awards  
and

C. Peter McGrath Community Engagement Scholarship Award

Enhancing individual empowerment and community health: Developing and sustaining a  
university-school district partnership model for the preparation of resilient and effective STEM  
educators for high-poverty schools

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North Central Region

April 2015

## **Abstract**

An articulated partnership model between Michigan State University's Department of Teacher Education and significant urban centers around the state—most notably, Detroit Public Schools—was developed and included several universities committed to the goal of addressing the critical shortage of STEM teachers in high-poverty schools. The partnership is focused on supporting the development of STEM teachers who have deep content knowledge, a commitment to teaching youth in challenging settings, and the resilience to remain in teaching and to make a difference in their school and community. By combining critical site-based experiences with children, families, school-, district-, and community-based stakeholders, as well as professional development opportunities for Teaching Fellows and their Mentors, beginning educators in this program are better prepared for the particular challenges with which they are faced and remain in positions where they are most needed. Additionally, Mentor Teachers report great satisfaction from the ongoing support they receive from the program, from their interaction with other mentors, and from what they learn from the Fellows whom they mentor. In addition, a systematic program of professional support, such as monthly workshops, coaching, and conference opportunities, was implemented for these beginning STEM teachers in order to continue supporting them across the first three years of their careers, when so many typically leave the profession. The model developed by Dr. Richmond and her partners provides benefits for all involved, and continued collaboration promises to effectively address STEM teacher attrition and, consequently, larger issues of community well-being. Results have been disseminated broadly, at practice- and research-oriented conferences, and via peer-reviewed publications. In addition, positive outcomes have led to additional funding to broaden efforts and

examine how additional induction support can enhance the professional growth and resilience of early-career STEM teachers.

## **Section 2: Relationship and Reciprocity Between Community and University**

### **2.1 Issue, Relationships, and Reciprocity**

Critics have increasingly raised concerns about the performance of U.S. students in STEM subjects (e.g., National Center for Education Statistics, 2007). This has led to efforts to improve STEM teaching, recruit more disciplinary majors and STEM workers, and retain well-prepared teachers (Guarino et al, 2006; U.S. Department of Education, 2009). Despite these efforts, the number of science teachers who leave teaching is large: an estimated 40% of teachers leave the profession within four years (Sterling, 2004). This number is even larger (rising to between 70-80%) in high-poverty schools with large minority student enrollment (Ingersoll & May, 2012). The latter problem is particularly critical because it is these very schools that present the greatest challenges for any educator, but particularly someone at the beginning of his or her career.

One response to this crisis has been the introduction of programs providing alternative paths to teacher certification (Wilson et al, 2002) that ease entry and make teaching more inviting to a diverse population. Many of these efforts have sought to infuse the field with content-matter specialists and to focus on schools with the highest needs. While the number of such programs has increased significantly, and this increase is likely to continue, the challenge of developing effective programs is in understanding those elements that are key to supporting those preparing for such careers. This is particularly cogent in programs that compress teacher preparation experiences.

The preparation and retention of secondary science teachers in schools with greatest need requires not only that they begin their careers with deep knowledge of content, but with a strong sense of themselves as educators responsive to the contexts in which they will teach, which are not only physical, but social, cultural, and political (e.g., Richmond, in press). We know that it is

critical for teachers to have a commitment to schools with great need. This means that we must develop ways of selecting individuals who have or could develop such a commitment and to provide the tools for them to leave these programs as “well-started” beginning teachers and to develop as effective educators in these high-need contexts.

The bottom line is that teaching and learning in any context is complicated. But it is particularly so in high-density, urban environments. It is in these schools where more students of color, more recent immigrants, more students with special needs, more students whose first (or even second) language is not English, and more students from families marked by poverty and violence are largely represented. It is these same schools that are significantly more under-resourced and that hire and lose more beginning teachers than their counterparts in more affluent and (often) more suburban communities.

Because of this complexity, no one individual or institution can create mechanisms for significant change. It requires the expertise and partnership of key stakeholders who share the commitment of providing effective educators for children who deserve such individuals and who can help these young people improve their lives and the lives of their families.

In this project, efforts have targeted major high-poverty communities in the state. While these communities are unique in many ways, what they share is a low graduation rate and a high percentage of students from poor families. Urban communities in particular also have significant enrollment of students of color. The key community partner working with Dr. Richmond and MSU is Detroit Public Schools (DPS; additional school district partners include Lansing, Jackson, and Grand Rapids). University partners include Wayne State University, Eastern Michigan University, and the University of Michigan. While each university designed its own certification/master’s program for the Teaching Fellows, based upon the mission, culture, and

unique resources of their own institution, they shared details of their program design and implementation at regular meetings of senior staff, and, with a lead liaison from DPS, collaborated in the design and implementation of professional development (PD) workshops for Fellows and Mentors. (See details below.) DPS administrators worked closely with MSU to select mentor teachers, arrange for placement and oversight of Fellows and Mentors, identify and schedule field-based experiences for Fellows during the summer and across the student teaching year, arrange district-based end-of-year celebration events, provide human and material resources as needed to support both Fellows and Mentors, and facilitate the job search process. Face-to-face meetings were held monthly with additional virtual meetings held as needed to address upcoming events or unexpected problems and opportunities. In Detroit, meetings were most often hosted by district schools and the MSU Detroit Center. Several organizations in Detroit (United Way of SEMI, Michigan Science Center) and Lansing (Refugee Development Center, Black Child & Family Institute, Urbandale Farms, Allen Neighborhood Center) hosted visits of MSU Fellows so they could see how these organizations contribute to the health of their community and how they might serve as resources for teachers.

### **Section 3: Impacts**

#### **3.1 On Community Partners**

For school district partners, there are several benefits of this work. One of the most significant is the ability of the districts to hire teachers who are better prepared for the challenges associated with their school and community contexts, which leads to less teacher attrition and greater commitment to school and community. Of the 24 Fellows who have successfully completed the MSU Program, 20 are teaching in high-poverty urban (e.g., Detroit, Grand Rapids, Lansing,

Jackson) or rural (e.g., Escanaba, Fife Lake, Perry) secondary schools across the state. (High-poverty here is defined primarily as schools in which at least 50% of students qualify for free or reduced lunch. Most of our Fellows teach in schools where this percentage falls between 65% and 100%.) Only three have left Michigan for family reasons, and two of these three are still teaching. Another Fellow is seeking a permanent teaching position. An additional eight Fellows are completing their residencies this spring, and will begin teaching in September. Together, beginning this Fall, these 32 Teacher Fellows will collectively affect the lives of approximately 4,800 students each year.

This partnership also has made it possible for districts to recruit the most qualified and committed teachers earlier in the year for anticipated openings in district schools. For example, DPS staff have developed a special on-line portal through which only our Teaching Fellows can apply for positions in the district, and hold job fairs and interviews with special “Fellows Only” sections. Because they spend an entire year at their placement schools, administrators observe them during the year, and Fellows also are approached when positions at the school become available. Districts also are able to share their concerns and priorities with university faculty so that the university can be more responsive to these in their design of their teacher preparation programs. Originally funded by the W.K. Kellogg and Woodrow Wilson Foundations, the partnership also has been of benefit for district partners in that it has garnered positive attention by the media and has provided the foundation for grants providing additional funding for district-university collaboration on issues of importance to both partners. Dr. Richmond has subsequently obtained an NSF grant to expand this work on preparing STEM teachers for careers in high-poverty schools nationally, and several other collaborative proposals have been written (e.g., two NSF proposals written with DPS, Boston Public Schools and University of

Massachusetts—Boston focused on supporting science learning at low-performing middle schools in both districts through university-district partnerships). Another way this work is being sustained is through continued involvement of experienced mentor teachers in MSU’s regular program.

### **3.2 On University Partners**

For university partners, this work has represented an opportunity to address complex problems collaboratively—combining best ideas, practices, and resources of each institution. It also has resulted in greater numbers of teacher candidates committed to working in under-resourced schools—teachers who stay, are better prepared, and are more likely to serve as future mentors for teacher candidates from our institutions. This work also has allowed us to create a more unified voice at the state level and beyond about the need for high-quality programs targeting teaching in high-poverty settings, with greater integration of course and field components.

MSU is a world-grant university. As such, we have a commitment to improving the lives of those in the communities we serve, either directly or indirectly. This work has served to enhance and expand this mission to include strategies to provide candidates with experiences which prepare them for careers in high-poverty schools in Michigan and beyond. In addition, this work has yielded tools and models that can be shared with other IHEs committed to preparing teachers that can increase their effectiveness and longevity in these days of greater accountability and smaller budgets.

One of the most powerful impacts of this work has been the extent to which what has been implemented and the lessons that have been learned have been incorporated into conversations and programmatic features of our secondary science teacher preparation program. Course content, field experiences, speakers, orientation and support structures for teacher



candidates and their mentors have all been influenced by this work, with powerful and effective outcomes. One powerful example of this is that the partnership that Dr. Richmond established with Upward Bound (UB) at MSU as a site for providing summer opportunities for teaching, tutoring and interviews for Fellows has now been developed into the weekly field experience for all secondary science candidates associated with their TE courses during the school year.

Candidates are matched with a small group of UB participants and teach lessons, assist with homework, and work with students on tasks such as planning school club or team events, seeking out/applying for summer opportunities, and preparing college applications and essays. Data from these formal interactions have revealed greater academic achievement and greater interest in college attendance by UB students matched with our candidates, and increased confidence in teaching and greater interest in working with students from disadvantaged backgrounds by our candidates.

## **Section 4: Lessons Learned and Best Practices**

### **4.1 Lessons Learned and Best Practices**

The biggest challenge facing partners was how to comfortably communicate about and negotiate our different cultures. We did this by being explicit about these differences and then moving forward to identify common goals, commitments and values and to use these commonalities as the basis for our collaborations. In some instances, this meant that we “agreed to disagree”; we also came to see these disagreements as rich territory to which we returned regularly. But in all key matters, we held the same goals, and as a result were able to develop collaborations which were effective and which provided a foundation for our future collaborations. Many of the challenges reflected the structures characterizing our respective communities—who makes

decisions; to whom do things get communicated, how often, at what level of detail and when; however, because of our shared commitments, we were able to work out such matters so that we could collaborate in designing mechanisms to support Mentors and Fellows overseen by the university, the district, or both.

Examples of disseminated scholarship related to partnership work can be found in the Appendix, along with references cited.

### **Section 5: Future**

We anticipate continued collaboration around teacher preparation and induction because we see the power of such collaboration on the resilience of those who graduate from our programs and choose to teach in districts such as Detroit. Because of the partnerships established, we have access to each other's expertise and are calling on each other to speak in our university classes and provide information on districts and open teaching positions around the state. We also have access to each other's Fellows, and are calling on them to serve on panels, sharing expertise with others in our regular and targeted programs. In a few years, in fact, we will contact these Fellows to serve as mentors for our teacher candidates! We also are collaborating on placements with mentors who worked with Fellows across universities so that we can continue to involve them. Additionally, as a result of these efforts, Dr. Richmond is reaching out to other community-based partners in order to provide experiences and insights to candidates about schools and the community as resources for learning as they prepare for teaching careers.

In addition, Dr. Richmond has obtained an NSF grant with DPS as the primary partner to prepare and support STEM teachers in high-need schools across the country. This grant will be in force until 2019. And while we have already presented various dimensions of our work at

state, regional, national and international research conferences, Dr. Richmond has several additional writing projects with her university and district partners in progress and planned which focus on STEM teacher education.

The plan is to use the financial awards to support opportunities for the districts' students to engage in STEM-related opportunities (e.g., the HSHSP, a summer residential research program which Dr. Richmond directs or other similar programs), and teachers to develop after-school programs or attend summer PD workshops (e.g., Exploratorium institutes) or conferences (e.g., MSTA, NSTA) to present work related to their teaching and to network with other teachers from across the state or country.

# MICHIGAN STATE UNIVERSITY

April 7, 2015

Selection Committee  
C. Peter Magrath/W.K. Kellogg Foundation Community Engagement Awards  
Association of Public and Land-grant Universities  
1307 New York Avenue, NW, Suite 400  
Washington, DC 20005

Dear Selection Committee:

Michigan State University is a proud land-grant institution with more than 150 years of academic excellence that blends pioneering imagination, innovation, risk, persistence, and hard work. We are deeply engaged with society, helping individuals and communities achieve their potential in Michigan and around the world. Community-engaged scholarship is at the heart of our land-grant tradition, and it remains firmly embedded in the culture of Michigan State University.

Our faculty, staff, students, and alumni have fostered an open, collaborative culture that empowers opportunity and creates extraordinary impact for a better world. We welcome and support the success of a diverse population of learners, and we connect globally to build networks that are world changing. At MSU we are working to instill deep disciplinary knowledge along with a keen ability to communicate across social, cultural and economic boundaries. We aim to graduate students who are in high demand for their ability to innovate, build relationships, advance research, and strengthen organizations in their chosen fields.



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Recognizing the spirit and tradition of the C. Peter Magrath Community Engagement Scholarship Award, and the W.K. Kellogg Foundation Community Engagement Scholarship Awards, it is an honor to endorse the project led by Gail Richmond, associate professor in the College of Education, to represent Michigan State University in the 2015 awards process.

This longstanding project focuses on recruiting, training, placing, and supporting new STEM teachers in under-resourced, high-poverty schools. Dr. Richmond refers to research that estimates approximately 40 percent of early teachers exit the profession within their first three years in the classroom, and this number increases to almost 70 percent in high-poverty schools. Dr. Richmond recognizes the need to build and sustain vibrant networks that involve enthusiastic newcomers and seasoned educators. She is developing new ways to address core teaching practices, teacher resilience and technology induction support for teachers in challenging settings.

While this nomination focuses on Dr. Richmond's partnership with Detroit Public Schools, one notable aspect is that the academic model of the project is being applied to other under-resourced schools—urban, suburban and rural. The key component is the university-community partnership that develops and flourishes over time, working collaboratively and setting shared goals. Dr. Richmond and her team continue to apply the rigors of the field to develop new ideas for the partnership, as well as share their discoveries with academic colleagues through scholarly publications.

At MSU, engagement is defined as a form of scholarship that cuts across teaching, research, and service. It involves generating, transmitting, applying, and preserving knowledge for the direct benefit of external audiences. We are proud of this exceptional partnership, because it exemplifies how we at Michigan State University foster university-community relationships that are collaborative, participatory, systemic, transformative, and anchored in scholarship.

Dr. Richmond's work illustrates a creative and innovative process that fully engages a wide range of activities within a community, while utilizing the interconnected components of people, technology, and services. Those involved in this project have demonstrated scientific excellence. The commitment to build a mutually respectful relationship, working together to determine how best to achieve goals and measurable results, is what makes this project an award winner.

I invite you to consider the scope and the impact of Dr. Richmond's engaged scholarship. Thank you for considering our Michigan State University nomination for the 2015 W.K. Kellogg Foundation Community Engagement Scholarship Awards and the C. Peter Magrath Community Engagement Scholarship Award.

Sincerely,



Lou Anna K. Simon, Ph.D.

President

# DETROIT PUBLIC SCHOOLS

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Selection Committee

W.K. Kellogg Foundation Community Engagement Scholarship Award

C. Peter McGrath Community Engagement Scholarship Award

APLU

1307 New York Avenue, Suite 400

Washington, D.C. 20005

March 29, 2015

Dear Selection Committee,

I am pleased to be able to write this letter as a community partner in support of the application of Professor Gail Richmond at Michigan State University for the Kellogg and McGrath Engagement Scholarship Awards. In my former role as a Detroit middle-school science teacher and in my current role as Executive Director of the district's Office of Science for Detroit Public Schools (DPS) and Director of the Detroit Mathematics and Science Center, I have seen first-hand the immense challenges associated with supporting the learning of children in the largest city in our state, and the immense rewards which accrue when this support yields young people who are empowered to achieve to their fullest as a result of this learning. To accomplish these ends, it is imperative that we have science teachers who are not only deeply knowledgeable about the subjects they teach, but who are skilled in reaching out to students with diverse backgrounds, needs and interests; who understand how to work effectively with parents and other caregivers; and who will be contributing members of their school communities.

Educating youth is an incredibly complex task, and it is imperative for districts and institutions which prepare teachers to join in partnership with each other. I am pleased to have been able to collaborate with Dr. Richmond since 2010 to do just that. Our collaboration has been focused on three goals:

- Preparing teacher candidates for the culture of schools and for the communities they will encounter and contribute to as educators
- Creating and sustaining supports for continued professional growth for both candidates and the experienced teachers in the district who serve as their mentors
- Creating 'communities of practice' to support the continued professional growth, not only for mentors and teacher candidates, but for university and district partners as well.

In the following paragraphs, I share several examples of the concrete ways in which we have, through our partnership, worked towards achieving these goals on behalf of the teachers, students and administrators in DPS.

## PREPARING TEACHER CANDIDATES

This work begins even before candidates come to the district for their full year of student teaching. In order to get a deeper sense of the unique challenges associated with the education of the children of Detroit, as well as the incredible resources that the district and the city have that might be leveraged by educators, we collaborate to provide opportunities for Teaching Fellows to visit and to interact with key stakeholders. For example, we coordinate visits by Fellows to elementary and secondary schools in the district, conversations with administrators and teachers, as well as myself and members of my staff, visits to STEM-rich sites such as Belle Isle, the Detroit Zoo, and the Michigan Science Center. Fellows also have visited such places as United Way, Eastern Market and neighborhood urban gardening sites. Both before and during their student teaching, Fellows are encouraged to volunteer at the many STEM- and community-oriented events around the city, sponsored not only by DPS, but by community-based organizations as well. They also take advantage of the many cultural events we inform them of that take place just about every weekend around the city, and with extracurricular activities such as robotics, gardening, sports teams, DAPCEP, honor society, among others, at their school as well. In addition, over the course of several weeks during the summer, Fellows spend time teaching science and study skills lessons and interviewing students from Detroit who are participants in several programs (e.g., Summer Scholars) on campus.

## CREATING/SUSTAINING PROFESSIONAL GROWTH OF CANDIDATES & MENTORS

One of the most significant examples of efforts in this area is the work that we do together to identify and support the placement of teacher candidates with mentors in district schools for an entire school year. This work only begins with our collaboration to identify placements and to prepare the Fellow and mentor for their work together. It continues as the year progresses, and as the responsibilities of both candidates and mentor teachers shift. Dr. Richmond and I remain in close contact as candidates move through their year, and we mediate, problem-solve and support as needed, since each Fellow and mentor is a unique individual, and their strengths and areas of challenge, and the nature of their relationships are unique as well. One particular way we support the professional growth of both the teacher candidates and their mentors is by providing monthly, site-based professional development workshops for mentors and candidates, which focus on problems of practice typically faced by both sets of individuals and which provide a supportive atmosphere away from school in which to work on these problems collectively. (I provide more information about this below.)

## CREATING/SUSTAINING COMMUNITIES OF PRACTICE

The specific work in the W.K. Kellogg Woodrow Wilson Teaching Fellowship Program in which Detroit is a partner, involves Eastern Michigan University and Wayne State University (and until this past year, University of Michigan) in addition to Michigan State University. One of the most mutually beneficial collaborations has been the one undertaken by DPS and these universities in designing and providing support through monthly professional development workshops in Detroit and designed and led or co-led by the partners. To do this well has required the development and sharing of common commitments to the educators and children of Detroit and to the community itself, and has led not only to mutual respect, but to an experience in which candidates, working alongside their mentors on common problems of practice, see their mentors as lifelong learners and have the opportunity to work with their colleagues in the district in a “safe space” in which the only goal is to support themselves and each other as professionals. These sessions build upon what has been learned and often includes participation by mentors and former Fellows who are now teaching in the area. It also has resulted in the development of a set of shared tools which each partner has been able to use with other districts with which they work. And lastly, it has resulted in the development of a profound sense of respect, not only for the problems that educators working in such challenging settings face, but for the knowledge and skills that can result in incredible learning gains for students who are taught in effective and committed

I hope that this letter has given you a sense of the significant work that Dr. Richmond has done and the goals she has accomplished in her years working with DPS. I know that the district benefits from having prepared and committed STEM educators who will be a stable part of our schools and are able to contribute over time to the health and well-being of children and their families in Detroit.

Sincerely,

A handwritten signature in black ink that reads "Alycia Meriweather". The signature is written in a cursive, flowing style.

Alycia Meriweather  
Detroit Public Schools  
Executive Director, Office of Science  
Director, Detroit Mathematics and Science Center  
alycia.meriweather@detroitk12.org

*Since new developments are the products of a creative mind, we must therefore  
stimulate and encourage that type of mind in every way possible.  
George Washington Carver*



March 1, 2015

Selection Committee Members

W.K. Kellogg Foundation & C. Peter McGrath Community Engagement Scholarship Award

APLU

1307 New York Avenue, Suite 400

Washington, D.C. 20005

Dear Committee Members,

It is our pleasure as Fellows of the Woodrow Wilson Teaching Fellowship Program to write a letter of recommendation on behalf of our teacher, mentor, colleague, and close personal friend Dr. Gail Richmond to receive Michigan State University's Community Engagement Scholarship Award. We have collectively known Dr. Gail Richmond since the summer of 2012 when we were named Woodrow Wilson Fellows. We all entered the Woodrow Wilson Fellows Program having come from various backgrounds and circumstances. Some of us had only recently completed our undergraduate degrees in science while many of us had received advanced certifications and degrees. This diverse cultural and educational fellowship required a person to knit our unique backgrounds together into a cohesive whole. While as Fellows, we interacted with many different educators, mentors, and teachers throughout our sojourn in the Woodrow Wilson Fellowship, it was Dr. Gail Richmond who was the glue that held our group together, gave it direction, and created a sense of family.

One way in which Dr. Richmond exemplifies the skills of community-building is in her focus on the individual. All of us can attest to the ability of Dr. Richmond to know and value each of the Woodrow Wilson Fellows as an individual. This focus on the individual can be exemplified through some personal anecdotes. Matt Oney has shared how appreciative he was for the extensive amount of time Dr. Richmond spent with him even prior to applying to the Woodrow Wilson Fellowship when she sat down with him to give guidance and leadership in the initially uncertain time of changing careers and helped him make an informed decision about transitioning from being a bench scientist to becoming a STEM teacher. He recounts that, "she never pushed me into the teaching program at MSU, but rather helped me put together a plan of action that eventually led me into the program." He continued by noting that, "Once I was committed to the program, she empowered and inspired me to continue to push myself to become a better teacher." Clinton Bartholomew also recounts how Dr. Richmond was there for him as an individual during the transition between working as a research scientist and becoming a high school teacher, "I remember walking into Gail Richmond's office for the first time when I was contemplating the transition from research into teaching. It was Gail's confidence in me as an individual that made the transition easy." We all would also like to comment on how she has given us individualized advice and tailored our curriculum to meet our individual desires and needs. Dr. Richmond helps us push our teaching and skills to the next level. All of us can also attest to the numerous invites we have had from Dr. Richmond to talk one-on-one on the phone or to meet for coffee. In this way she has helped us all feel valued in the group. Dr. Richmond has made community possible through her concern and care for each individual under her purview.

Not only does Dr. Richmond value every single member of the communities she builds, but she also creates the environment in which small groups thrive. Rochell Mahaley has shared her feelings on the subject. "As graduate student mentee of Dr. Richmond, I have witnessed the countless hours Dr. Richmond spends teaching her mentees in and outside the classroom. Because of her dedication and commitment to the students in the Lansing Public schools, I have seen growth in myself, my school, and in the district." She concludes, "Her guidance has helped me become a beacon of outreach in my own high need educational community". In this way Dr. Richmond has created a group of mentees who bring her vision of outreach to a wider audience.

Dr. Richmond has acted to continuously strengthen the ties and bonds of our community. Several times a year she gathers all of the cohorts together for workshops. At these workshops it is interesting to see that despite the presence of friends and colleagues, everyone gravitates towards Dr. Richmond first and last as they enter and leave. At these workshops Dr. Richmond is constantly introducing people from different cohorts and suggesting ways in which they could collaborate. We have all had calls, texts, and emails from Dr. Richmond suggesting ways in which we might collectively contribute. Zack Sweet recounts Dr. Richmond's innovation and care in these workshops. "Whether it's advice over the phone, organization for a workshop, or a quick e-mail, Dr. Richmond has a way of connecting with an individual's needs and goals. She has a way of truly empathizing with others and finding ways to help us surpass our own expectations." In

addition to these structured learning experiences, we have all spent time in Dr. Richmond's home at holiday parties and summer events. In this way Dr. Richmond creates a vibrant sense of community that extends between cohorts and connects us with the larger Woodrow Wilson Fellows community.

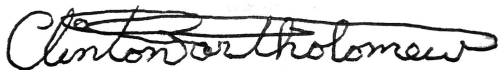
While we have been close witnesses to Dr. Richmond's efforts in community building with regards the Woodrow Wilson Fellowship Program, Dr. Richmond has endeavored to widen that community by connecting us with the larger community she acts to create. During our training we visited several schools in Lansing, Jackson, and Detroit where Dr. Richmond has worked extensively. It was evident to all of us that the teachers and administrators in these districts held Dr. Richmond in high esteem and that they felt that she was working diligently on their behalf. The respect that others have for Dr. Richmond is unmistakable. During our initial training she had us work with the High School Urban Scholars and Upward Bound Programs, and we also commonly get invites to attend the High School Scholars Math and Engineering program. Rochell Mahaley notes the many efforts Dr. Richmond has made to ensure one of her students with the need and desire to attend the program could do so without the stress of financial concern. "Watching my student's enthusiasm and level of comfort while presenting his research project is a moment I will never forget." In these and many other ways Dr. Richmond has acted to enmesh the Woodrow Wilson Fellows into the much larger community that she has sought to create.

In closing we would all like the readers of this letter to know how much we appreciate all that Gail has done for us as educators. She exemplifies in both words and actions what it means to value the individual and the group. Through her extensive efforts in continuing to act as our mentor, Gail has benefited both our lives as well as both directly and indirectly the lives and families of those we teach. As Rochell Mahaley, one of the Fellows, has so eloquently stated,

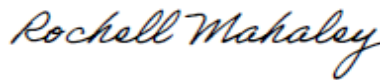
We currently live in a day and age when we look towards community for substantial growth and development, but we somehow find it easier to operate in our world as individuals rather than as a whole. Outreach operates synergistically and is harnessed and challenged by a select few who are unique and possess rare abilities. When these individuals are found, they bridge the hopes and dreams of many by bringing together communities of disadvantaged students and under served populations with a mission to promote change. They provide, foster, and inspire the contagious growth of others within these communities by welcoming them with loving arms into an inclusive community of scholars. Dr. Gail Richmond is one of these select and unique individuals. She possesses an undeniable expertise for recognizing and developing the diverse potential that each of her students bring to the Fellowship program. As graduate student mentees of Dr. Richmond, we have all viewed the countless hours she spends teaching in and outside the classroom. Many of the personal hours she spends are utilized by preparing, priming, and critiquing us in our teaching practices. This is to ensure we could all reach our aspirations of becoming great educators with a passion to learn and teach science. It is evident she desires the students she guides to leave academia with the ability to take a glimmer of the light she emits. This allows us to become our own beacons of outreach while continuing to promote her mission of hope and empowerment to the students in high need educational communities...."

We would like to add our recommendations to those of others in emphatically recommending Dr. Gail Richmond to for these prestigious and well-deserved awards.

Sincerely,



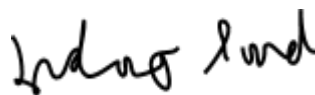
Clinton Bartholomew, Ph.D  
Jackson Schools



Rochell Mahaley, M.A.  
Lansing Public Schools



Matthew Oney, M.S., M.A.  
Escanaba High School, Escanaba



Zachary Sweet, B.S., B.A  
Renaissance High School, Detroit

## **Selected Examples of Disseminated Scholarship Based Upon the Partnership & References Cited in Narrative GRANTS:**

*Principal Investigator & Director.* National Science Foundation, Noyce Teacher Fellows Program. MSU SETS-UP: “Supporting Early-Career Teachers of Science through Urban Partnerships” (2013-2020; \$2.8 million)

*Co-Principal Investigator & Director.* W. K. Kellogg & Woodrow Wilson Foundations. “MSU WK Kellogg Foundation Woodrow Wilson Teaching Fellows Program at MSU”. (2010-2017, \$770,000)

*Co-Principal Investigator* with A. Calabrese-Barton, S. Gunnings-Moton, D. Sibley. National Science Foundation. “Preparing tomorrow’s teachers” (2009-2012, \$600,000)

### **PEER-REVIEWED ARTICLES & BOOK CHAPTERS:**

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