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URBAN REFORM'S FORGOTTEN STAKEHOLDERS: EXAMINING THE MOBILIZING OF INNER-CITY COMMUNITIES IN THE FORMATION & OPERATION OF A COMMUNITY-BASED EDUCATION PROGRAM

BY

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DISSERTATION

Submitted in partial fulfillment of the requirements
for the degree of Doctor of Philosophy in Educational Policy Studies
in the Graduate College of the
University of Illinois at Urbana-Champaign, 2019

Urbana, Illinois

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ABSTRACT

As urban community voices are often missing from conversations surrounding education policy and school reform, a central component in the schooling equation is being overlooked. To this effect, my dissertation research examines an instance of place-based community organizing embodied in an out-of-school time STEM education program, Adventures in Science Education (AISE), located in Philadelphia, PA. The question that drives my ethnographic examination is, *how do human and physical resources, from an often segregated urban landscape, come together to inform the implementation of community-based enrichment programs?* My research site fosters collaborative work amongst local actors from various community groups who have forged an alliance in response to limited educational opportunities afforded to local black youth. AISE, programming predicated upon a dynamic university-community partnership, reflects resources often overlooked in the city's urban landscape that can be mobilized to enhance students' academic achievements. Unpacking the complexities embedded in this partnership can support efforts to unearth more of the networks and capital available in urban spaces to support youth's access to scientific knowledge, interactive curricular models, local scientists (in particular scientists of color), and their own abilities to problematize the world around them through their critical engagement with it. One of this dissertation's central contributions is the examination and presentation of urban community groups' meaning-making and mobilizing practices, as they are collectives often lost in the education policy arena as well as the community engagement literature grounding this project. This dissertation analyzes an instance of reciprocal engagement. Knowledge, as capital, transferring from both university and community actors to produce a community program that offers rewarding academic and social opportunities.

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CHAPTER 1: INTRODUCTION

Problem Statement

Nearly a third of the nation's public school students, and slightly more than half of the nation's minority youth, attend schools in urban areas (Statistics, 2010b, 2010a). Urban schools, especially in the nation's inner-cities, are often understood as operating in various stages of disrepair and/or need (J. Anyon, 1997; Lipman, 2011; C. M. Payne, 2008; Ravitch, 2014). These are places where constrained city coffers, access and retention of qualified instructors, limited material resources, and curtailed curricula in response to state and federal benchmarks are engendering poor schooling conditions. These complex and interrelated factors are engaged at length by policy-makers, academics, politicians, and educational reformers who understand that change is needed. However, there is great debate amongst these actors regarding how to respond to present conditions, and who to turn to in waging a response. Who is understood as part of the solution? What assets should be mobilized in response? These are important questions to unpack. Campaigns to transform the nation's schools, typically aligned with the needs of the national economy, have been at the core of public schooling since the Common School Movement (Fraser, 2014). With more recent reform measures impacting the contemporary classroom being No Child Left Behind (NCLB), Race to the Top (RTTT) and its subsidiary measures[1], and the expansion of school choice schemes[2]. RTTT, arguably the most inclusive federal reform – allowing states to play a role in shaping the reform's implementation – made clear what constituencies were viewed as value-added stakeholders. To elaborate, state applications, especially successful applications, readily called for the support of union leaders,

[1] Subsidiary measures include: Common Core Standards, longitudinal data system, Promise Neighborhoods, and School Improvement Grants.
[2] These three "reform strategies" are the major educational policy initiatives put forth by the last three presidential administrations – under George H.W. Bush, Barack Obama, and Donald Trump.

superintendents, school boards, lawmakers, institutes of higher education, and the business community (entities from both the public and private sectors). These collectives were called upon to "eliminate barriers to innovation and create the best possible conditions for success" (Duncan, 2009). However, in this sea of legitimated stakeholders, community voices were rarely present. When the "community" did appear it was through cursory letters of support. The large majority of the community groups that appeared in the applications came from parent and early childhood groups. There were very few references from racial or ethnic community groups. There was no communication from educational outlets such as the TRIO program. The community (regardless of the form it took) was not constructed as an integral stakeholder in the planning process. No community group or organization appeared on any winning state panel when application plans were presented before the Department of Education RTTT final review boards. However, members of various business communities did appear.

When federal reform measures touch-down in local communities there is a clear understanding of who the desired troops are to put the reform into action. Community leaders and organizations (typically comprised of neighborhood residents, parents, and youth) are not presented as desired stakeholders. School Improvement Grants (SIGs), the largest (and the last) allotment of federal reform dollars able to directly service urban area's most underperforming schools,[3] still routinely excluded community voices in submitted applications. In urban areas such disconnects have historical legacies, as rifts between schools and their surrounding communities are sadly the norm (Lawrence-Lightfoot, 1978; Lubeck, 1995; Meier, 1998; Scott-Jones, 1994; Vilson, 2014). In urban areas, in particular, the fact that community voices are

[3] SIGs service the lowest performing schools in all areas – city, town, rural, suburban. Most aided area, in all 50 states plus DC, were urban schools. SIGs took shape through 4 pre-determined reform types. However, local constituents were able to determine, within these strategies, how they wanted to assemble their plans and who they would call upon to enact them.

consistently absent in contemporary reform initiatives in not surprising, but extremely problematic.

In conversations on reform, particularly urban school reform, there is a rupture between the "reform establishment" and local communities. Major impetuses for reform's ineffectiveness are thought to include, an underappreciation by reformist for communities' low social capital (C. M. Payne, 2008); competing constituencies the result of the financial gains available in managing schools (Russakoff, 2015); and reform measures that specifically center on internal restructuring, operating as if schools exist in silos divorce from their larger social contexts (Obama, 2011; Staffer, 2015). As scholars such as, Charles Payne look to explain why *so much reform has led to so little change*, communities are left to wrestle with the ramifications of poor performing schools, most importantly the curtailed learning opportunities experienced by their youth.

Though the mobilization strategies of community members and organizations tend not to surface in educational discourse, community groups are responding to local conditions, and doing so in dynamic ways. They are responding to inequitable learning conditions that hit closer to home than they do for most politicians and policymakers. Community groups have a more personal motivation, as the institution in question is impacting the life chances of local young people – from their neighborhoods, religious institutions, and potentially their own homes. From this perspective, young people are so much more than statistics in a policy brief or report who live in "depleted" urban environments understood to have few, if any, tangible resources to mobilize around. Moving away from the mainstream reform establishment, and its competing priorities, this dissertation is centered on an examination of those who toil in its shadows. I argue that there is much to gain, especially for reformists and policymakers, in examining the

understandings and mobilizing practices of local community groups – these *forgotten stakeholders*. To this effect this ethnographic study presents Adventures in Science Education (AISE). AISE, located in Philadelphia, PA, is an out-of-school time,[4] hands-on STEM education[5] program serving inner-city African-American youth. It unites individuals from various community groups who cross geographic and cultural borders within the city of Philadelphia to create a place that supports student learning and self-discovery.

Purpose of the Study

Philadelphia is marked by a stratified two-tiered economy. The city, like many urban metropoles, is operating in the wake of what I refer to as a three-prong societal attack: the result of neoliberal governmentality, public services in financial crisis, and societal imperatives to leverage positionality in a global economy that tends to trump local provisional needs. Philadelphia, as an urban city, is imbedded in processes of global competition. In an era of globalization, cities (as hubs) compete for economic relevance, becoming a node in the circuits of global capitalism. This contentious interplay can be viewed as a "race" where a city's citizens

[4] "Out-of-school-time initiatives include before, afterschool, and weekend programs; summer learning opportunities; service learning; mentoring and internships. They are formal and structured opportunities for school-aged youth that can complement the regular school day. They are most often provided by schools, community and faith-based groups, youth-serving organizations, cultural institutions, and city/state agencies." Definition from United Way, "Out-of-School Time Tool Kit" http://outofschooltime.unitedway.org/.

[5] **In this project I used the moniker "STEM" and the phrase "science education" interchangeably. I took this liberty because program participants did the same when presenting AISE's offerings.** The program began as a science education program, and at its core it remained one. Throughout my time in Philadelphia, reference to AISE as a science education program was most common. However, during my 2nd trip, I heard the STEM moniker used for the first time. At the time, Dawn explained its usage as strategic. STEM was, and is, all the rage. She stated that staff understood that everyone was talking about, and looking for STEM programming, especially funders. So the moniker was adopted. Though the curriculum was always science heavy, technology and engineering features have been present in AISE's curriculum since its inception. They appeared in particular modules in the 4th and 5th grade curriculum. Math, through worksheets, had been incorporated into the program in its 3rd year. It was realized that the kids' math skills were poor and math was specifically needed in the 5th grade Chemistry unit. The worksheets used were PSSA test questions. Ultimately, though to a lesser extent, the "T", "E", and "M" in the STEM moniker were present in programming. However, as the bulk of AISE's graduate students were in the natural sciences, the sciences were always heavily featured in all of AISE's programming – the main Saturday program, science fair projects, and in the Science Bazaar booths.

are not equally valuable, but judged on their potential to make the city more competitive. Accordingly, just as one would in assembling a team, cities selectively invest in neighborhoods (i.e. resource allocation and infrastructural development) that they see as offering the best chance to win the "global economic game". The result is uneven development which impacts all aspects of social life from economic opportunities, to a locality's political prowess, educational offerings, housing, access to healthcare, and food and material services. Aihwa Ong (2006) refers to this as "graduated sovereignty," where citizenship is not equally constructed amongst lawful citizens, but rather derived from understandings of individual's perceived usefulness to the established social order.[6]

Within this context, multi-scaled realities (extending beyond the education system) are heavily shaping educational practices – in terms of this project curriculum offerings. In the classroom, "teaching to the test", in an environment that can barely meet federal and state educational standards, has become the name of the game to remain open and (traditionally) public. And it was within this same context that local communities from across Philadelphia's fragmented landscape – composed of black religious communities, university personnel, school district staff, parents, and youth came together to enact AISE. The program's founding leadership tapped into resources, both human and physical, within the city space to create a program that reimagines urban science education, wrestles with constructions of what it means to be an urban black youth, and reconstructs relationships amongst local networks and city residents.

[6] Though Ong's analysis is applied to nation-states in the global South, I argue that in the global North, the United States specifically, graduated sovereignty is also present. Here as well, access to the rights of citizenship are conditional, based upon the state's perceived value of a people and the spaces they reside. In relation to my research, urban African Americans, as a collective, are not perceived as societal linchpins in the global economy making their development and citizenship status lowly.

Daily operation in this space mean multiple things – as this complex site negotiates relationships and social factors coming from within and outside the program – existing on various social scales. In its most basic essence, AISE is kids, from 2-5th grade, and adults meeting in a converted house to engage in scientific inquiry. The students are greeted each Saturday morning with a defined curriculum tailored, in part, after the city's science curriculum. Staff, from various communities, keep the program in motion. These are collectives who traverse geographic, social, and cultural spaces to enact this program; communities who on first glance can be viewed as divergent or in conflict, but who have mobilized around a common purpose. Daily operation requires negotiating relationships with funding sources, the city's expansive scientific community, and universities; just as it means attendance rosters, snack, and science fair projects. AISE is a structured 2 and half hour morning framed by an opening and closing session and classes in between – where attention spans are held, lost, and then held again. Operation also means interdisciplinary learning as writing, math, critical thinking, English, problem-solving, and experimentations occur each week, because science is all of these things. Ultimately this is a school, erected in 2008, continuously being defined by the communities that constitute it.

This ethnographic examination of a community-based educational program allows for an analysis of the interplay between multi-scaled processes coming from the federal, state, and local levels impacting city function, but in this case, specifically educational experiences. Program leaders aspired to transform learning experiences for students and provide an opportunity for them to reimagine their place within the schooling enterprise. I intend to unpack some of the realities taking place at the site – examining new forms of cultural transmission taking place within this schooling context, specifically regarding resource mobilization, negotiations of macro

processes and factors (especially within the city) informing program operations, and the capital carried by AISE's diverse collectives.

Research Questions

As a community-based educational program, AISE is imbedded in a series of local networks and social scales that oriented its founding and weekly operations. These conditions frame the push and pull taking place between program actors and various external resources, networks, and systems – as program participants look to create a place that supports student learning. The following research questions guided this ethnographic investigation. Through these questions, this site's examination became a tool to address a larger phenomenon – specifically the brokering of divergent inner-city resources to support the development of community programming.

1. How do human and physical resources, from the city's landscape, come together to support program operations?

    a. What resources are marshalled for the creation and maintenance of this program?
    b. What do participants understand as individual and collective benefits of program participation?
    c. What linkages do participants see between AISE, as an informal learning environment, and formal learning systems?
    d. What role does race play in obtaining the diverse capital that sustains program operations?

2. How do these mobilized resources shape science education's presentation?

    a. What are the teaching philosophies present at the site?
    b. What learning strategies do program staff and volunteers introduce at the program?
    c. How do students articulate the knowledge gained through their program participation?
    d. What outlets are built into the program (and what outlets do students create) to support their scientific voices?

3. From the perspectives of program participants, what does community mean and what role does it have within the program's enactment?

a. What are the varied understandings of what it means to come together in this site?
b. How does community and community building manifest?
c. How do the various communities that come to AISE understand their unique and shared roles at the program?

4. How do notions of space and border-crossing inform program operations?

    a. How do participants understand the spaces they exit, enter, and move through to participate in this program?
    (i.e. within the physical, cultural, and educational landscape)
    b. What are the risks and benefits associated with bringing resources across city "borders"?
    c. How do participants construct the city's segmented terrain? Differentiated mappings of its "borders".
    d. How do understandings of place, constructed from both actual events and social imaginaries shape participants' perceptions of AISE, its programming, and the individuals they encounter at the site.

Significance of the Study

Adventures in Science Education is the product of people thinking, acting and engaging collectively. It is an educational program predicated upon the mobilizing possibilities of inner-city actors and resources. Though the perspectives of urban community groups are often lost in the education policy arena as well as the university-community partnership literature grounding this project – resource mobilization taking place at AISE has much to offer to both scholars and practitioners. This partnership illustrates an instance of reciprocal engagement. Knowledge, as capital, transferring from both university and community actors to produce a community program that offers rewarding academic and social opportunities. Unpacking more of the complexities imbedded in urban spaces to foster community programming has the ability to not only support formal learning experiences, but also expand upon them in meaningful ways. Dynamic university-community partnerships can be a central component within this process. As this partnership illustrates, they can be emboldened by resources, though commonly

underutilized, such as, parents, graduate students, university staff, graduate student organizations, and local urban professionals. Urban community groups – in this instance through a university-community partnership – have the potential to bring nuanced understandings of local resources and organizing to the table.

Along with a potential to advance conversations on urban reform and community engagement – the usage of an ethnographic lens to guide this investigation will deepen this dissertation's scholarly contributions. Arguing, not only for the value of inner-city collectives' transmission of human and material resources across an often fragmented terrain, but also the importance of unpacking the meaning-making involved in producing this shared enterprise. Analyzing participants' understandings of the learning context they co-created will only strengthen an investigative effort meant to showcase the work of forgotten stakeholders. By rooting this project in their *voices*, knowledge, and capital I hope to unearth more of the possibilities – the networks, resources, and people – on the local level available to support urban school reform, community engagement initiatives, and impactful programming for young people.

Overview of the Dissertation

Chapter 2 presents an overview of the scholarly literature that this project is grounded in. This review is broken up into three sections. The first section includes a broad introduction to the scholarship on university-community partnerships, a subsidiary form of community engagement[7]. In this section I outline university-community partnership's common shape and

[7] Within this literature the terms university-community partnership and community engagement are often used interchangeably. Though engagement can have a broader understanding, encompassing university or department initiatives (e.g. research centers), faculty-led projects (community-based research), and undergraduates' service-learning experiences. In this literature review the terms can be used interchangeably, especially when the references are taken directly from the larger literature. However, in my own framing, when possible, efforts are made to distinguish between the two concepts. Within my analysis community engagement is used as an umbrella term, it encapsulates all of the varying partnership initiatives a university can engage in. An Office of Community Engagement can be one example of an encapsulating institution on a college or university campus that will include

present prevailing scholarly interventions within the literature. The second section, moving deeper in the literature, opens with a brief history of town-gown relations; before unpacking engagement's common shapes in practice as well as presenting prevailing constructions of voice and representation amongst partnership actors. Finally, the third section examines university-community partnerships in education, specifically out-of-school time[8] (OST) programming geared towards elementary and middle school students. As an urban university-community partnership, focused on educational access, sits at the center of this research project I look to contribute to this subset of the university-community partnership literature.

Chapter 3 presents concepts and the theoretical framework employed to support this investigation. Since I started my doctoral studies with a clearer understanding of my research project, and entered my site for the first time during the first year of my program, I have had the opportunity to apply various theoretical frameworks and key concepts to my research. I use this chapter as an opportunity to present the theoretical journey I undertook to acquaint myself with both key terns and the theory I use to support this dissertation project. The key terms are space, place, border, and border-crossing; they are at the heart of my examination of these forgotten stakeholders' local organizing. Ultimately, I unite these concepts with Edward Soja's theory of Spatial Justice to support my data collection and analysis proceedings.

Chapter 4 presents my methodology. I begin the chapter by introducing my orientation to the field of ethnography and the training undertook to develop what I call *ethnographic sight*. All

various partnership projects. Another encapsulating entity is a research park. A university-community partnership is a *specific* collaboration. For example, a service-learning experience or a faculty-directed research project are each instances of a university-community partnership.

[8] "Out-of-school-time initiatives include before, afterschool, and weekend programs; summer learning opportunities; service learning; mentoring and internships. They are formal and structured opportunities for school-aged youth that can complement the regular school day. They are most often provided by schools, community and faith-based groups, youth-serving organizations, cultural institutions, and city/state agencies." Definition from United Way, "Out-of-School Time Tool Kit" http://outofschooltime.unitedway.org/.

disciplines have their operational niche and the ways they look to train their students *to see*. Ethnography is no different, as a practitioner, I have been given tools, techniques, and empirical knowledge to embark on a research project rooted in an examination of individual's meaning-making. The latter allowing me to unpack realities in a micro-setting, to ultimately contribute to understandings of larger social processes (e.g. social (dis)integration) and social factors (e.g. race, education, and governance). The meat of the chapter presents the study's design – site selection, participants, role of the researcher, and data collection and analysis proceedings. I conclude with a discussion of how I maintained trustworthiness and validity within the project.

As the introductory findings chapter, I use chapter 5 to present AISE as a situated educational site. I do this by framing the chapter around the phrase – *So, what is it?* This was a question asked by collectives both in and outside of AISE's walls. I take the chapter to answer the question by presenting the site in relation to the city's larger educational landscape. A backdrop that weighs heavily on all participants' constructions of program offerings. The chapter goes on use this guiding phrase to illustrate competing ideas regarding the program's mission and origin stories. I conclude the chapter, providing my own response to the question. I root it in a discussion of the weighed, and unrealistic, expectations that can be placed upon inner-city community programs. These are expectations rooted in the larger schooling context they reside in, which can truncate programming's potential to being seen as either part of the cure, a band-aid, or part of the problem.

As an education program, the product of localized resources, AISE did not embody the capital and players commonly featured in mainstream educational partnership initiatives – specifically university-community partnerships. The capital mobilized to enact AISE fell well outside of commonly heralded channels, but illustrated the potential organizing power of inner-

city collectives and institutions. Therefore, the intent of chapter 6 is to bring to light and examine instances of the capital present within this context, assets rooted in both sides of the partnership. The resources that entered AISE to construct and maintain the program came in two forms – human resources (individuals and collectives) and physical resources (material items). They commonly came from two entities, a local university and the larger community that housed AISE. Though university voices and perspectives are the mainstay within the partnership literature, my intent to produce a more equitable analysis includes providing a richer conversation on the community actors present and the resources they possessed.

Chapter 7 provides a snapshot of AISE's kids – the youth that programming was built around and the graduate students who were their instructors. This chapter examines the obstacles imbedded in not only maintaining each student population, but the challenges faced in responding to their diverse needs overtime. The chapter is broken up into two main parts: each focusing on one of the student populations that met in AISE's classrooms. The chapter begins with an examination of AISE's targeted students, its inner-city youth. I unpack the obstacles imbedded in navigating the local context, specifically the formal school system, to obtain its young people. In the process I showcase some of the hidden barriers more readily attached to certain inner-city youth populations, impeding collaborative engagement efforts across learning sectors. The second part of the chapter, examines AISE's older students. I illustrate how volunteers' identity constructions not only shaped their rationales for investing, but also showcase how their positionalities expand common constructions in the literature regarding the university actors present in engagement initiatives.

Chapter 8, the dissertation conclusion, begins with an overview of the study's intent and findings. This section addresses the project's impact within the engagement literature, how my

methodological and theoretical tools helped to unpack participants' meaning-making within their co-construction of place, and the position of this project within the larger urban reform discourse. I then present the project's implications. In this section I am speaking to academic scholars, university administrators in office of community engagement, and engagement practitioners. Finally, the chapter concludes with the study's limitations – presenting the need for increased voice and representation amongst the featured program participants and missed opportunities to examine resource mobilization efforts in some of AISE's subsidiary STEM programming.

CHAPTER 2: WHEN FENCES DON'T MAKE GOOD NEIGHBORS: URBAN UNIVERSITY-COMMUNITY PARTNERSHIPS

This literature review is broken up into three sections. The first section includes a broad introduction to the literature on university-community partnerships, a subsidiary form of community engagement[9]. In this section I outline university-community partnership's common shape and present prevailing scholarly interventions within the literature. The second section moves deeper into the literature. I open with a brief history of town-gown relations; before unpacking engagement's common shapes in practice as well as presenting prevailing constructions of voice and representation amongst partnership actors. The third section examines university-community partnerships in education, specifically out-of-school time[10] (OST) programming geared towards elementary and middle school students. As an urban university-community partnership, focused on educational access, sits at the center of this research project I look to contribute to this subset of the university-community partnership literature.

University-Community Partnerships – An Introduction

There are multiple ways to construct university-community partnerships. Scholars appreciate that they take shape on various social scales, from neighboring to more removed

[9] Within this literature the terms university-community partnership and community engagement are often used interchangeably. Though engagement can have a broader understanding, encompassing university or department initiatives (e.g. research centers), faculty-led projects (community-based research), and undergraduates' service-learning experiences. In this literature review the terms can be used interchangeably, especially when the references are taken directly from the larger literature. However, in my own framing, when possible, efforts are made to distinguish between the two concepts. Within my analysis community engagement is used as an umbrella term, it encapsulates all of the varying partnership initiatives a university can engage in. An Office of Community Engagement can be one example of an encapsulating institution on a college or university campus that will include various partnership projects. Another encapsulating entity is a research park. A university-community partnership is a *specific* collaboration. For example, a service-learning experience or a faculty-directed research project are each instances of a university-community partnership.

[10] "Out-of-school-time initiatives include before, afterschool, and weekend programs; summer learning opportunities; service learning; mentoring and internships. They are formal and structured opportunities for school-aged youth that can complement the regular school day. They are most often provided by schools, community and faith-based groups, youth-serving organizations, cultural institutions, and city/state agencies." Definition from United Way, "Out-of-School Time Tool Kit" http://outofschooltime.unitedway.org/.

international communities (Hart & Wolff, 2006). Along with diversity in the partnership's scale, the "community groups" a university partners with also vary. For example, common community partners can include local non-profits, state institutions (e.g. health and education facilities), and multi-national industries in both the public and private sectors. I examine university-community partnerships that take place on the local level, within urban areas, between universities and their city neighbors. Nicholas Buys and Samantha Bursnall (2007) define local partnerships as "the coming together of diverse interests and people to achieve a common purpose via interactions, information sharing, and coordinated activities" (p. 73). A common impetus for these partnerships is the need to respond to social problems experienced in the city (e.g. crime, education, health and wellness, food services, and employment). Although a given social problem may be a shared concern by university and community actors, resulting in their collaboration, the former is often described in the literature as engaging as a result of "enlightened self-interest" rather than moral imperatives (Cisneros, 1996; Harkavy & Hartley, 2009; Maurrassee, 2001). Scholars describe university personnel as understanding that the university's fate is wrapped up in that of its larger city (Gilderbloom & Jr., 2005). The literature states that a city (or more specifically the community surrounding the university) must remain a safe and healthy space to help maintain a university's prestige and attraction – especially in the eyes of perspective and current students, parents, and faculty (Freeman, 2006; Harkavy & Hartley, 2009; Maurrassee, 2001).

From the university's perspective, the perspective often taken-up in the higher education literature[11], university-community partnerships have a better chance of thriving when universities

[11] This literature review features university-community partnerships at doctorate granting research universities – specifically within Colleges of Education. Outside of education, human community development is a prevailing engagement field within the higher education literature. In terms of professional programs, health-related fields also include an expansive university-community partnership literature.

are strongly committed to community engagement initiatives. However, potential tensions, that can have deep historical roots, are ever present between universities and their city neighbors. In the 2014 ASHE special issue, *Community-University Engagement: A Process for Building Democratic Communities* Tami L. Moore argues that reciprocity should be the goal of engagement work, asserting that "[r]eciprocity is fostered in these relationships by information sharing that goes both ways, moving away from the traditional outreach model. Embracing engagement as a process…[where] community and university representatives mak[e] a commitment to two-way knowledge transfer" (p. 9-10). Moore's approach to engagement stresses a focus on *process* rather than *outcome*, as an emphasis on process can help practitioners and scholars center their engagement efforts on relationship building. The latter Moore argues, is a central component to healthy partnerships. Moore presents the prevailing goal for engagement (and therefore partnership) work, equitable collaborations between university and community actors – built upon knowledge transfer, trust, and consistent communication. As this goal, which permeates the literature, is worthwhile and reflects a desire for shared growth – historical disconnects, cultural differences, and varying institutional priorities between university actors and their surrounding communities can be a major obstacle to its achievement. As these factors are consistent roadblocks, they can be a starting point to examine the literature, unpacking how they can stand in the way of equitable partnerships – particularly in urban settings.

Town-Gown Relations as Contentious Intimacy

Though collaborative ventures are advocated for by scholars, historical and contemporary disconnects must often be surmounted for any type of meaningful engagement to take place. The

literature presents historical tensions between town and gown going back to the founding of the nation's colleges and universities. When institutes of higher education were initially erected, commonly to educate religious and civic leaders, town-gown separation was viewed as necessary to safeguard university students from a corrupted larger society (Bruning, McGrew, & Cooper, 2006). Bruning et al. state that "[a]s a result of this concern, universities often developed policies that insured that students were 'protected' from the community, effectively separating the university from its surrounding neighborhood" (p.126). Though unintentional, the 1862 Morrill Act, which expanded the university system nationally, contributed to town-gown divides.

The Morrill Act provided land grants to over 70 U.S. colleges; where federal land grants were awarded with the expectation that the donated land be used to promote research and professional development that focused on agriculture and industry. Land grants required university administrators to provide public services to local residents in return for federal aid (Aronson & Webster, 2007; Mayfield, 2001). In response, land grant colleges were supposed to strengthen community and university relations; however they commonly had the opposite effect (Bruning et al., 2006). At their best, these "collaborations" were based upon an outreach model where community groups (i.e. local farmers) brought problems to university researchers to solve. Expertise moved from the university, out into surrounding communities. Rather than viewing local communities as partners or allies, the latter were commonly viewed as clients and their homes research laboratories (Bruning et al., 2006; Taylor, 2009).

Beginning at this same time, major American urban universities underwent great transition in institutional focus, regarding research and engagement in their urban ecosystems. Urban universities such as, John Hopkins, Columbia University, the University of Chicago, and the University of Pennsylvania, viewed the advancement of social life within American cities as

a primary university function. Barbara C. Jentleson (2011) argues that "[t]he city itself was viewed as an ideal site for putting knowledge into action. The possibilities for integrating theory and practice where a driving force in this progressive vision of the university's role in society" (p. 6). However by World War I urban universities' focus on applied learning came to a halt, as the complexities of the urban ecosystem proved to be a "surprisingly difficult laboratory" (Jentleson, 2011, p.6). By the mid-century knowledge production moved to experimental approaches and for the most part this has remained into the present. The emphasis on basic research over applied research within university's reward and promotion structure further cemented this transition (O'Meara & Jaeger, 2006). In the long term the focus on basic research, Jentleson goes on to argue "led to less direct involvement and responsiveness to addressing societal needs" (p. 6). By latter half of the 20th century, as a result of the distress may cities faced (i.e. social, economic, and environmental factors), universities could no longer ignore social problems as they were "pressing against the gates, walls, and ivory towers of major research universities" (p.7). The latter leading to a reinvestment in local engagement; action that was as much for the benefit of the university as it was for local communities (Cisneros, 1996; Maurrassee, 2001; Moore, 2014)

Presently, a major point of contention within the literature regards universities' non-profit status. This area of concern is most prevalent amongst the nation's urban, specifically inner-city, colleges and universities (Mayfield, 2001). Universities' non-profit status gives them tax exemption[12] – which is applied to any real estate developed for the advancement of the

[12] The Association for American Universities, a self-described premier organization consisting of "leading private and public research universities" defines federal income tax exemption by the following, "The vast majority of private and public universities and colleges are tax exempt entities as defined by Internal Revenue Code (IRC) Section 501(c)(3) because of their educational purposes – purposes that the Federal government has long recognized as fundamental to fostering the productive and civic capacities of citizens – and/or the fact that they are State governmental entities….Income from activities that are substantially related to the purpose of an institution's tax exemption, charitable contributions received, and investment income are not subject to federal income tax. The Federal tax code classifies tax –

university's continued growth, and the enactment of its mission and core values. This status allows universities to purchase local real-estate without the burden of having to annually contribute to a city and state's coffers through property taxation. Therefore, universities are able to expand their scope and scale within a city's terrain, all while paying limited funds back to the city in which it's housed (Lawrence-Hughes, 2014). This issue came to a head in the 1990s as colleges and universities more aggressively expanded their physical presence in urban communities, in response to their growing populations (faculty, staff, and students) and increased research and teaching endeavors (Mayfield, 2001). Lance Freeman (2006) in *There Goes the 'Hood: Views of Gentrification from the Ground Up* takes the issue a step further by indicating that the land universities' purchased in urban environments were often inhabited when sold. He illustrates that procuring *established* parcels of land often resulted in the inevitable pushing out of longstanding community groups and the refacing of local neighborhoods to meet university's needs. Prime examples of such urban university expansion occurred in Harlem, New York by Columbia University, Chicago (specifically the South Side) by the University of Chicago, and Philadelphia (specifically West Philadelphia) by the University of Pennsylvania.

In acknowledgment of the forfeited taxation revenue, universities participate (often voluntarily) in initiatives such as PILOT (payment in lieu of taxes) and SILOT (services in lieu of taxes) programs to give back to their local cities. These reimbursement programs were enacted by the federal government through Public Law 94-565 in 1976. In the case of American colleges and universities this program results in either the federal government, state government or the university itself making payments (or providing services) to the local city government for the

exempt colleges and universities and their foundations as public charities. Consequently, they are not subject to tax on investment income, payout requirements, or other rules that apply to private foundations".

loss in taxation revenue. However, in terms of revenue into city coffers, Judith Steinkamp (1998) argues against the value of these program asserting that such payments tend to represent pennies on the dollar. Philadelphia, for example, in the mid-to-late 1990s had its strongest PILOT program (Dent, 2015). The program's strength was the result of the leverage the city government garnered in controlling how non-profits were categorized. This arrangement allowed officials to strongly influence the financial incentives an organization kicked-back to the city to maintain their non-profit status. However this arrangement changed in the late 1990s when the state government presented uniform criteria to determine non-profit status, taking the upper-hand away from local governments. At its height, the city of Philadelphia received 9 million dollars a year from 46 nonprofits, illustrating that PILOTs were never a major revenue stream for the city (Dent, 2015).[13] However, in "The Meds and Eds in Urban Economic Development" Carolyn Adams (2003) asserts that since urban universities are often a major (if not the largest) local employer, resulting in their consistent contribution to the local economy and potential for job growth, they make healthy investments back into their home communities. In other words, even before voluntarily contributing to local governments through PILOT and SILOT programs urban universities are making hearty contributions to their local economies. Though counterarguments exist, the debate on university's returns to their local cities is a consistent point of contention within the literature (Lawrence-Hughes, 2014; Leiderman, Furco, Zapf, & Goss, 2002; Pasque, 2010; Ronocolato, 2013).

In the midst of this more contentious historical narrative, constructive shifts toward amicable engagement did occur. Beginning in the 1980s and 1990s a national push was made by

[13] In 2015, mayor-elect Jim Kenney campaigned on the promise to bring the 1990s PILOT program back to the city. The major intent being to garner financial assistance from the city's educational and medical institutions. Though the funds would not be substantial, he stated that the procured resources would go towards the city's distressed public school system. (Dent, 2015).

university leaders to ignite a new commitment in community engagement (Moore, 2014). As Loomis Mayfield (2001) asserts in "Town and Gown in America", this investment called for university's to move away from traditional understandings of the modern university as "a fortress of pure research, driven by the desire of autonomous faculty for knowledge in their individual disciplines" (p. 232). This shift was championed by Ernest L. Boyer in the 1990 publication *Scholarship Reconsidered: Priorities of the Professoriate*. Boyer, former SUNY chancellor and national Commissioner of Education, produced the text while the president of the Carnegie Foundation for the Advancement of Teaching. Boyer argues that faculty tenure proceedings and universities' core values were integral in crystalizing academics' inward focus on discipline and institutional development. Through the report, Boyer asserts a more robust system to determine and evaluate faculty output. Boyer's framework centers on four main areas: a scholarship of discovery (research), a scholarship of integration (interdisciplinary engagement campus-wide), a scholarship of application (engagement), and a scholarship of teaching (specifically undergraduate instruction). Boyer's proposed measures were a sharp shift away from traditional evaluative benchmarks for promotion, the latter most strongly defined by peer-reviewed publications and procured research grants. In relation to the current literature review, Boyer's call for a scholarship of application is of central import. To this point, Boyer asserts that amicable knowledge production between university and community groups is a worthwhile endeavor, as universities receive public (specifically financial) support. Therefore it is problematic that community concerns and interests are consistently overlooked within the academy. There is an obligation, *a debt*, that Boyer argues universities (administration and faculty) owe to the communities they are situated within. By paying one's debt, through

equitable engagement, such work would have the added effect of lessening town-gown divides and building trust between neighbors.

Spurred by Boyer's call, university driven engagement initiatives took root nationally, focusing on civic engagement and the public good – more specifically local economic development. Though this new push to invest university resources into the alleviation of social problems was encouraging, it often took shape through one-way knowledge production and outreach (Moore, 2014). Jeffrey C Bridger and Theodore R. Alter (2007) in "The Engaged University, Community Development, and Public Scholarship" indicate that the economic development initiatives that often took place at this time can be personified as "development in communities" rather than "development of communities" (p. 170). Moore (2014) bolsters their point when indicating that the "singular focus on revitalization through economic development [would] not necessarily improve the lives of community residents…Revitalization may actually disenfranchise particular community members" (p. 3). Though the impetus for engagement at this time was promising, in many ways the response to this national push was the beginnings of what is presently referred to within the literature as universities' investment in "enlightened self-interest".

Town-Gown Relations: Voice and Representation

The literature presents an array of tangible and intangible resources reciprocated (especially from universities to communities) in partnership work. For example, scholars stress that universities can offer their larger communities financial and physical resources, intellectual capital, job opportunities, and contracts for local businesses (Maurrassee, 2010). Maurrasse in *Beyond the Campus: How Colleges and Universities Form Partnerships with their Communities* indicates that these offerings are particularly stressed when universities are located within low-

income neighborhoods. Scholars go on to argue that communities are described as providing a location for faculty to engage in innovative research, student learning opportunities, and to offer a space for universities to combat a negative local legacy (Buys & Bursnall, 2007; Cisneros, 1996; Leiderman et al., 2002). However, these points still speak to what universities gain within university-community partnerships. Though community perspectives are fleeting within the literature, conversations on why they participate do occur, but very rarely are their discussions of what they *bring* to the partnership. Moore (2014) argues that communities' construction within the literature is often the product of outside perspectives. Community partners are rarely given the opportunity to assess the value they find in their own experiences. She notes that the "relative assessment of the neighborhood's intellectual resources is itself influenced by the larger society's read on the relative value or social influence of a college degree versus lived experience" (p. 13). The literature makes clear that the former continuously outweighs the latter, especially when partnerships follow a professional assistance or outreach model. Such frameworks position community partners as "somewhat ignorant" and the university assuming that "*we* know more than *them*, and *we* are here to *help them*" (Moore, 2014, p. 82). In a literature heavily dominated by the perspective of one side of the partnership. Ferman and Hill's (2004) case study, based upon the experiences of 17 community partners, provides a rare opportunity to hear from community partners – learning first-hand why they chose to engage in collaborative work. Ferman and Hill's research concluded that there were four main reasons influencing community organizations participation in university-community partnerships. The rationales were: obtaining project related resources, leveraging resources for future projects, gaining access to university and research-based networks, and increased legitimacy. These results confirm the major trends in outstanding studies examining community groups' participation in engagement work (Fullbright-

Anderson, Auspos, & Anderson, 2001; Nye & Schramm, 1999; Stoecker & Tryon, 2009; Vernon & Ward, 1999).

One impetus for community perspectives in the literature occurs when community actors play a leadership role in producing both research and scholarly manuscripts regarding their own experiences. In the article "Realizing the Potential of Community-University Partnerships" Yolanda Anyon and Maria A. Fernandez, former Youth Engaged in Leadership and Learning (YELL) program directors, provide a more rare balanced assessment, presenting the unique strengths that both university and community partners brought to the table. In their analysis the invaluable resources that community groups brought to the partnership consisted primarily of in-kind resources. These included staff support, local knowledge and connections, physical space for programming, equipment, and a commitment to collective programming. The community groups were not seen as coming to the partnership empty-handed, but playing a valuable role by contributing material, social, and intellectual capital to the success of the YELL partnership. In "Achieving the Promise of Community-Higher Education Partnerships: Community Partners Get Organize," the Community Partner Summit Group (2010) argue that community partners, rather than academics, are responsible for making sure that their perspectives and experiences are featured within this literature. Ultimately, they feel that community groups must create their own seat at the table, rather than being concerned with whether academics capture and share their experiences. Though this argument has merit, its execution within academic venues may be difficult for many community partners to muster.[14] Regardless of where one stands on this particular debate, university-community partnerships will not be based upon reciprocal

[14] For example, urban community partners (i.e. community activists, residents and agencies) may not have the resources – specifically the doctoral training, social and professional networks, and time – to produce documents for presentation at conferences and inclusion in academic and trade publications.

engagement without the continuous contribution of community actors in the design, implementation, and dissemination of partnership work.

In the face of historical disconnects that exist into the present, scholars assert that part of the contention often present within partnerships (specifically community-based research and service-learning experiences) lies in the fact that they commonly bring together contrasting interest groups. Conflicts over power, voice, and representation can override collaborative efforts, amongst socially unequal parties. This inequality is often the product of factors, such as disparate racial backgrounds, varying education levels, political prowess, and/or differences in valued social and cultural capital (Cobb & Rubin, 2006). Moore (2014) argues that dichotomous constructions of the university and its surrounding community have emerged, where "universities are widely understood to be sites of expert knowledge, while communities have been situated as the recipients of that knowledge, inherently lacking expertise" (p. 12). Scholars assert that opportunities have not been abundant within the collaborative process to help university and community actors see beyond these societal factors, and learn to hear each other (Axel-Lute, 2003; Evans, 2009; Maurrassee, 2001; Stoecker & Tryon, 2009).

In reading the literature, one does not have to wade deeply to encounter this disparity. It is often center-stage in the actual framing of the university-community partnership literature itself – where the perspective of the university and what these actors provide within collaborations is disproportionately featured (Cisneros, 1996; Hart & Wolff, 2006; Buys & Bursnall, 2007). Kathleen Bortolin (2011) in "Serving Ourselves: How the Discourse on Community Engagement Privileges the University over the Community" argues that the increase in engaged research, which spurs an increase in research on the act of engagement, has created "discourse communities that shape and influence understandings of community engagement in

higher education (p. 49). It is the "discourse communities" that are writing for and about themselves that she suggests is "counterproductively incestuous" (p. 49).

Bortolin presents arguments for why the engagement scholarship has taken its current shape. Yet, in terms of faculty-led engaged research a major rationale given to explain the power differential witnessed between faculty and community actors within the research process are the publication demands placed upon faculty members. Scholars argue that faculty must contend with funding demands, tenure processes, and research objectives that do not always align with community or practitioner imperatives (Bortolin, 2011; Cobb & Rubin, 2006; Ferman & Hill, 2004; Taylor, 2009). As a result, Boyer's call remains – with scholars arguing that universities' core values and mission statements must change for amicable engagement to occur (Ferman & Hill, 2004; Moore, 2014). In "Developing 'Local Communities of Practice' through Local Community-University Partnerships" Hart and Wolf (2006) extend this idea, stressing that more than reimagining a university's culture must take place if successful partnerships are to transpire. They argue for the necessity of capacity building amongst university and community partners – with the goal of fostering healthy relationships and collaborative practices. Capacity building, as a concept, sits at the center of research on engagement. In "Developing Access Between Universities and Local Community Groups: A University Helpdesk in Action" Hart, Northmore, Gerhardt, and Rodriguez (2009) provide the University of Brighton's Community-University Partnership Programme (CUPP) Helpdesk as one example of an effective intermediary. They present the Helpdesk as an example of a "bridge-builder" or "enabling platform" that broadens access between community and university actors (p. 55). The Helpdesk functions by enacting and assessing strategies that support the establishment and maintenance of partnerships and the production of engaged scholarship. The Helpdesk's efforts to build capacity include offering

training courses and workshops (specifically for community groups), facilitating regular research forums, assisting in the development of partnership projects, one-on-one support for partnership participants, and citywide consultation services. The University of Brighton, through the CUPP Helpdesk, is invested in understanding the factors involved in developing a culture that supports community engagement. A culture predicated upon fostering equitable opportunities for voice and representation amongst partners.

Town-Gown Relations: Major Themes & Current Shifts

Within this complex and myriad history, there are prevailing trends currently framing the dialogue. In "A Decade of Community Engagement Literature" authors Dian Olszowy Jones and Joonghee Lee (2017) indicate that the main scholarly focus over this time span has centered on service-learning initiatives – specifically examining the experiences of undergraduate students. They note a glaring absence within the literature regarding community perspectives, partnership financing, strategic planning, and faculty promotion and tenure. Though the last 10 years has focused most strongly on students' service-learning experiences, the current moment is seeing an emphasis on a different facet of engagement – namely, institutional engagement in the form of research parks. One example is Cornell Tech, a collaborative tech campus in New York City, a partnership between Cornell University and Technion Israel Institute of Technology. And another being University of Illinois system's Discovery Partners Institute (DPI) in Chicago, IL. This current form of university engagement (an example of engagement as place-making) reflects the duality of the university – as a *mobile anchor institution*. American universities exist as a simultaneous anchor institution, existing in a given locale, while also being able to spread their mission through various forms of satellite programming. In the above examples, these

universities' agility is witnessed in the formation of research hubs, physically separate from their "home" campus or campuses.

The university presented in the engagement literature is often an anchored university, rooted in physical space. Though engagement initiatives can expand a university's reach, the institution itself is still presented as rooted in space (Harkavy, Hartley, Hodges, Sorrentino, & Weeks, 2014; Moore, 2014). However, such a view of the university as stationary, may have to do with the celebrated scholars and scholarship within the field, and the type of urban university commonly featured, private universities. Traditionally private universities are more bounded in space than their public counterparts, especially those with satellite campuses. Though things like research parks and online programs have the potential to extend the reach of any university, the literature does not construct the university in that way. As a result a form of engagement, currently trending, which has baring for local university-community partnerships, can be overlooked. As service-learning experiences were a prevailing trend over the last decade, the shape and implementation of local level partnerships clearly mattered. New partnership trends such as research parks, occurring within mobile universities still have the potential to influence the orientation of local-level university-community partnerships within urban communities. Returning to the DPI example, this engagement initiative includes local partnerships with the Chicago Public Schools. DPI which is commonly hailed for its potential to connect academic research, industry, and young talented minds, will also include partnerships impacting the educational experiences of urban children, teachers, and diverse local communities. If this form of engagement continues to take hold, it will be important for scholars concerned with community level university-community partnerships to examine these "layered" partnership initiatives. In the face of past trends and current directions, university-community partnerships

within education require thoughtful examination and discussion. It is their presentation within the literature that I will now turn.

University-Community Partnerships within Education

This discussion will examine university-community partnerships structured around educational programming for K-12 youth. Both the focus and impetus for such partnerships can vary greatly. Commonly featured community partners within these partnerships are community-based organizations and public institutions. These include afterschool and OST programs, school districts, and health professionals. These entities often access the university, and incite their partnership initiatives, through Offices of Service Learning or Community Engagement (Adamuti-Trache & Hyle, 2015; Fiume, 2016). University actors (i.e. presidents, deans, and faculty) often come to community-based partnerships as a result of enlightened self-interest or a sense of civic responsibility for their undergraduates (Benson, Harkavy, & Puckett, 2007; Jentleson, 2011). For example, in response to both enlightened self-interest and a desire for civic engagement, Duke University president Nannerl Keohane, set out to transform their local engagement efforts in Durham communities. In *Better Together: A Model University-Community Partnership with Urban Youth*, Barbara C. Jentleson (2011) indicates that university personnel intended to increase the amount of "touches" they made in their local communities. "Touches" were measurable instances of reciprocal engagement between the university and its community neighbors. Though university-community partnerships can be spearheaded from an array of social actors, in practice they often take in particular ways. Below I will outline these partnerships common form, discuss the prevailing benefits and obstacles associated with their enactment, and conclude by illustrating some of the ways I intend to respond to prevailing gaps within this subset of the university-community partnership literature.

Common Forms of Engagement

Education oriented partnerships uniformly take shape through either *service-learning initiatives* or *research projects*, which both can be coordinated through university's *engaged research centers* that act as logistical hubs managing partnership work.[15] *Service-learning initiatives* (often courses) frequently bring undergraduates into community settings through programming directed at child development or youth and family services (Fiume, 2016). The service-learning initiative can be a component of a larger partnership, such as the Project HOPE afterschool programs within the Duke Durham Neighborhood Partnership (DDNP) – where the latter was framed around affordable housing, healthcare access, and academic achievement. Or, the service-learning initiative can be a one to one collaboration between a community partner and a faculty member, that exists as a central component within a university course The intent of service-learning experiences are to enhance students' learning by offering them "real world" experiences that complement classroom content and discussions; provide opportunities for civic engagement; and support the development of students' leadership skills, while stressing the need for rigorous personal reflection (Bonsall, Harris, & Marczak, 2002; Bruning et al., 2006; Buys and Bursnall, 2007; Harden, 2009). In Colleges of Education, for example, there is a growing push to incorporate service learning experiences into teacher preparation programs[16], as well as a smaller, but important call to extend these experiences beyond "traditional observational field experiences in public schools that do little to challenge teacher candidates' thinking about the

[15] These hubs such as, the Netter Center for Community Partnership as the University of Pennsylvania or the Center for Urban Research and Learning at Loyola Chicago, should not be confused with the University of Brighton CUPP Helpdesk. The former act as a coordinating entity, managing engagement initiatives. The Helpdesk acts as a mediating consultant, or broker, providing services and support that help ignite and maintain democratic partnership agendas between university and community actors.

[16] Anderson and Erickson (2003) note that 21% of service learning experiences take place in College of Education social foundation courses.

nature of school structures and institutionalized practices" (Tinkler, Hannah, Tinkler, & Miller, 2015, p. 16-17). In this type of partnership initiative, students can find themselves in traditional classrooms, nursery schools, community museums, recreational centers, and OST programs – with the latter being the most commonly featured community site for service-learning experiences.

The objective of afterschool programming, which includes partnership-based afterschool programming, is to "support positive youth development by providing academic tutoring and social skills mentoring that promotes good work habits, positive peer and adult relations, and exposure to cultural enrichment activities" (Jentleson, 2011, p. 23). For urban youth of color scholars argue that afterschool sites can be of particular importance (Halpern, 2003; Noam & Tillinger, 2004). One reason being that they can act as a second home or intermediary space between a youth's school and their home community and their community and the larger society. Barton J. Hirsch (2004) stresses this point in *A Place to Call Home* when arguing that "[o]ne of the hardest tasks for social policy has been to find ways in which young people can feel connected to the wider society…Community-based afterschool programs can serve as a setting in which youth connect with broader social institutions and the wider adult community" (p. 15). Community-based afterschool sites become such a supportive social structure, because they are able to provide youth and their families with a context where they can feel physically, psychologically, and culturally comfortable. All of these factors apply, within afterschool programming oriented around a university-community partnership, but an additional layer must be juggled. Along with supporting program youth, a quality partnership program will also include structural support that assist university students moving into community settings, the

community site staff, and university researchers. These diverse needs and expectations must be considered and provided for within the partnership structure.

The value of quality afterschool programming can be far reaching. Along with supporting those directly assisted by the programming, they can also play a complementary role for urban public schools. As public schools are responding to educational reform that calls for standardized curricular benchmarks and testing requirements, student learning is becoming increasingly curtailed. In response, academic areas and extracurricular activities that are not tested are being cut or de-emphasized. Afterschool sites can play a supplemental role by providing expanded learning and social opportunities lost in many of today's urban classrooms. However, within this context, where afterschool programs are shown to clearly matter, great challenges remain to creating and sustaining quality programming (Alliance, 2016; Halpern, 2003). Some of the main obstacles to offering quality afterschool programming include: securing consistent funding, recruiting and retaining qualified staff, conducting program evaluations, and reporting to external funding sources (Alliance, 2016; Jentleson, 2011) In partnership-assisted afterschool programming additional problems include issues with power-sharing (i.e. identifying roles and responsibilities), consistent communication amongst the various partnership stakeholders, cultural competencies, and opportunities to debrief individually and collectively to aid in program improvement (Adamuti-Trache & Hyle, 2015; Fiume, 2016; Jentleson, 2011).

University-community partnership *research projects* tend to include a community partner (or partners) and an individual or team of university faculty members. The projects can vary in both size and scope. An example of a prominent faculty-directed research project was Youth Engaged in Leadership and Learning (YELL). YELL began as a partnership between the John Gardner Center within Stanford University's College of Education and community organizations

from the neighboring Redwood City and West Oakland. YELL's main objective was to unite youth and adults, collectively identifying, researching, and responding to local social justice issues (Y. Anyon & Fernandez, 2007). Beginning as a 9 month pilot afterschool program with 15 8th grade students it grew to include 350 middle and high school students from across the two communities. This is a community-based partnership that achieved international acclaim, in particular through the release of the publication, *YELL: A Handbook for Program Staff, Teachers, and Community Leaders*. *YELL* is a curriculum unit currently in its second edition.[17]

These two types of engagement, service learning and research project, can be collapsed and take shape under a single partnership initiative. Such a collaboration has taken place in the city of Philadelphia, through the University of Pennsylvania (UPenn) for approximately 30 years in the form of "university-assisted schools". The initial vehicle for the partnership was the West Philadelphia Improvement Corp (WEPIC). WEPIC was an outgrowth of a 1985 UPenn honors seminar focused on university community relations and community stabilization (Benson et al., 2007). Along with UPenn being a central stakeholder within the partnership, WEPIC also included community groups, job training agencies, unions, churches, and state and federal agencies (Spirn, 1997). WEPIC's goals was to "create comprehensive, university-assisted community schools that are the social, service delivery, and educational hubs for the entire community. Ultimately…develop[ing] schools that are open 24 hours a day and function as the core building of the community" (Spirn, 1997, p. 21) . In *Dewey's Dream: Universities and Democracies in an Age of Education Reform* authors Lee Benson, Ira Harkavy and John Puckett (2007) state that through WEPIC the university looked to uphold its democratic duty as an institute of higher learning by making a conscious contribution into the heart of Philadelphia's

[17] Though the partnership has currently ended both entities, YELL and the Gardner Center have both gone on to play formidable roles informing urban education policy and practices.

ecosystem, its school system. The authors state that by "[a]ctively helping to develop an effective, integrated, genuinely democratic, pre-K through higher education school system, we contend, should become a collaborative primary mission of American universities and colleges" (Benson et al., 2007, p. 79-80).

The initial "university assisted school" was the John P. Turner Middle School and the first project was a school-based community health program. The program was anchored on the university campus through an anthropology course. Currently university assisted schools are most consistently supported by community service seminars and courses. In seminars, research projects (responding to a local social problem) are enacted and within community service courses more traditional service initiatives occur. WEPIC programming took place year-round within traditional school hours, afterschool settings, and in the summer. After 10 years of programming it was serving approximately "4,500 children, their parents, and community members in educational and cultural programs, recreation, job training, community improvement, and service activities" (Spirn, 1997, p. 21). The number of Philadelphia schools that received WEPIC aid (though UPenn) has fluctuated over the years, with the largest number of serviced schools being 12; 9 schools are currently served. However the main schools being supported are: Benjamin B. Comegys and Henry C. Lea elementary schools and Sayre and West Philadelphia high schools (Hertzler, 2017b). Through "university-assisted programming" these schools transformed from traditional schools into community schools. The Netter Center for Community Partnerships website, which includes WEPIC's current iteration[18] concludes that "Penn provides academic, human, and material resources to [the 4 main university-assisted

[18] WEPIC which was in existence from approximately 1985 to 1993 currently operates as the University Assisted Community School Program. This initiative is housed on UPenn's campus within the Netter center. Though a partnership initiative it is squarely spearheaded by the University of Pennsylvania.

schools] during the school day, after school, in the evenings, on Saturdays, and in the summer. Site directors employed by the Netter Center collaborate closely with each school and its community to determine activities that best serve their specific needs and interests" (Hertzler, 2017b)

An institutionalized engagement site taking root on college campuses over the last two decades are *engaged research centers*. Different than the traditional outreach center, engaged research centers (ERC) are predicated on a desire to construct opportunities for amicable, reciprocal engagement between university and community partners. In the 21st century, engaged research centers have become a more prevalent fixture on urban university campuses. They are often the product of increased university support, faculty-led research and activism, and/or foundation and government programs that encourage university-community collaborations (Ferman & Hill, 2004; Nyden & Percy, 2010). Scholars see many values in such centers. One main benefit being that they "bring together faculty and students from throughout an institution to carry out research and solve problems. As such, they typically transcend traditional disciplines and departments and…as a result, they often find it easier to take advantage of rapidly developing opportunities" (Silka, Teisl, & Settele, 2015, p. 93). An instance of the latter being funding opportunities; where center staff can innovate more quickly bringing pertinent faculty, staff, and students together in response to a particular research project's needs (Silka et al., 2015; Toof, 2012)

Within the Midwest, an exemplar engaged research center is Loyola University-Chicago's Center for Urban Research and Learning (CURL). CURL, located on Chicago's north side within the Loyola campus, was established in 1996 as an off-shoot of a successful network of universities and organizations in the Chicago metro area called Policy Research Action Group

(PRAG) (Nyden & Percy, 2010). Loyola was PRAG's fiscal home and CURL's founding director Philip Nyden had coordinated PRAG since its inception in 1989. As an extension of PRAG, CURL's approach to action-oriented research was predicated upon community-identified needs rather than existing academic research agendas or the priorities of external funders. Nyden boasts that "[f]unding for collaborative research projects did not come to CURL as a result of an aggressive grant-seeking campaign, but rather from the success of university researchers and community leaders in identifying important research issues, addressing community needs, and building lasting partnerships" (Nyden, 2006, p.17). The intent of all research and teaching that occurs through CURL is to have real-world application, specifically enriching community programming and local policies. Though not solely focused on K-12 education-based research and projects, along with education policy current research projects address welfare reform, homelessness, community health, affordable housing, and job training (CURL, 2017). The center averages 10-12 projects each year. All projects are undertaken by research teams consisting of at least 1 community organization staff member, a Loyola faculty member, graduate and undergraduate students, and CURL staff. Project results are disseminated through multiple venues, including being posted on both CURL and the partnering organization's websites – allowing for increased access to the general public.

The leading national (and arguably international) engagement center, focusing on primary and secondary education, is the UPenn Netter Center for Community Partnerships (Netter). Netter, originally named the Center for Community Partnerships, was established in 1992 under university president Sheldon Hackney[19]. Since its inception, Ira Harkavy (Netter's founding and current director) has employed three main interrelated areas of focus within the

[19] The Center for Community Partnerships became the Netter center in 2007 as a result of an endowed gift to the center from alumni Edward Netter and his wife Barbara Netter to expand the center reach and programming.

center. First, as the hub for university engagement initiatives, Netter coordinates the university's academically-based community service initiatives. Second, its staff spearhead the UPenn university-assisted community schools, where the schools operate as a beacon for community service initiatives. Lastly, both service initiatives and community schools are core elements within the university's "anchor institution strategy" (Hodges, 2017). UPenn's ability to, "improve both the quality of life in its ecological community and its academic research and teaching", through the Netter, was further bolstered in 1992 by the Provost's Council decision to introduce service-learning as a core component of undergraduate education (Benson, Harkavy, & Puckett, 2007, p.94). To date, Netter programming has centered on, literacy, STEM education, career and college readiness, health and nutrition programs, sports and fitness, and community economic development (Hodges, 2017). In the 2016-2017 academic school year, Netter offered 70 academically-based community service courses. Since its 1992 inception, it has offered 200 such courses through its university-assisted schools. In its 25 year existence, Netter's reputation as a pioneering force in university-based community engagement as grown to international notoriety. Lauren Hertzler in "A Quarter Century of Community Partnerships" reflects upon some of the networks and institutions put into play to support the replication of Netter's approach and philosophy. Hertzler (2017a) states that between,

> 1994 to 2004, the Netter Center received funding from foundations and the federal government to promote the replication of its UACS [university-assisted community schools] model. During that time, more than 20 higher educational institutions received funding to develop the UACS approach, and another 75 institutions were trained in the model…[with the] Netter's generous gift, the Netter Center has established a program to fund regional training centers on UACS in three-year cycles. In 2008, the University of Oklahoma-Tulsa became the first UACS site; followed by Indiana University-Purdue University Indianapolis in 2011; and University of Connecticut in 2014. The University of California, Los Angeles was selected as the fourth site and is beginning its work this fall. In 2015, the Netter Center created a University-Assisted Community School Network[20], which consists of at least 70 higher education institutions, to share resources, best practices, and advance the work (p. 1).

[20] The university-assisted community school network operates out of the Institute for Educational Leadership's Coalition for Community School, which Ira Harkavy is the director.

In the midst of Netter's dynamic programmatic expansion, university-assisted community school pioneers, Lee Benson, Ira Harkavy, and John Puckett state that "[t]hough it [Netter] has a long way to go before it actually achieves its goal, the center's overall effort, however, has been *consciously* democratic and participatory – to genuinely work *with* the community, not *on* or *in* the community" (Benson et al., 2007, p. 105). Netter has made a major investment in altering schooling experiences in West Philadelphia. However, Benson et. al (2007) go on to state that continued difficulties in working democratically with community partners to determine and enact community service-learning initiatives and set research priorities has occurred. In particular this involves identifying problems, planning projects, and implementing programs. They acknowledge impediments such as intellectual fragmentation within the university, a disciple-specific rewards system, and the university's legacy of "destructive action and inaction involving the local community" as hindrances to Netter staff being able to uphold the fullness of their partnership mission (Benson et al., 2007, p. 105). Ultimately, Netter staff's attempt at equitable partnerships represents one of the balancing acts at the heart of university-community partnership work. More pointedly, the need to juggle various, often competing, agendas that include university (or faculty) research and teaching priorities, community needs and desires, and the necessity for space (i.e. community forums) that allows potential partners to hear and wrestle with diverse perspectives.

As it is a recurring theme throughout the literature on university-community partnerships, the lack of community voices (i.e. teachers, community organization leaders, and parents) disappointedly remains in Netter's extensive publications record. This regards the inclusion of community perspectives within their published manuscripts and as featured authors. As a national leader in education-oriented university-community partnerships, Netter's leadership

have the opportunity to pay more than lip-service to democratic engagement. They play a major role in writing the narrative on effective community-level university-community partnerships. This regards scholarly understandings of both engaged research, and the framing of the literature through research on engagement. While calling for participatory principles throughout the partnership process is worthwhile. Netter can make a conscious effort to move the recorded narrative of partnership work beyond the experiences of the researcher center, university faculty, staff, and students.

Benefits and Obstacles to Sustaining the Partnership

Benefits are presented within the literature for all partnership participants: undergraduates, faculty, university systems, and community partners. Reciprocity, commonly framed around advancing learning outcomes and knowledge production, remains the cornerstone of all equitable partnership work. However, how a given collective benefits differs in relation to their positionality and needs. For example, university undergraduates, who are coming to partnership work as additional manpower, at times with relevant prior knowledge, are given an opportunity to engage in both academic and personal development (Engberg & Fox, 2011). In an effective partnership university students are given the opportunity to bridge theory and practice, enact practical strategies (i.e. lesson plan production) within diverse settings, and potentially expand their cultural competencies (e.g. regarding race, class, religion, or ability) (Warren, 2012). However, regarding service-learning partnerships, Jentleson (2011) argues that such outcomes are more likely when undergraduates are provided with a supportive infrastructure to enclose their placement experiences. Jentleson goes on to provide DDNP's service-learning structure as a case in point. The Project Hope partnership was incorporated into Duke's Program of Education and was managed by a full-time service learning coordinator. The latter's

responsibilities included offering an extensive orientation to students; coordinating site visits; providing necessary instructional resources for students, faculty and site organizers; facilitating stakeholder meetings; and sharing program and assessment data with all program participants. Consistent responsive communication, key within all partnerships, is central in coordinating undergraduates' partnership experiences.

Benefits to university faculty and staff include more nuanced understandings of community issues and concerns, deeper connections with community partners, and with repeated exposure to collaborative work the potential for more effective research agendas and funding allocation (Fiume, 2016; Jentleson, 2011). Though opportunities to increase civic responsibility often apply to undergraduates learning experiences, they can also shape participation for university personnel. As is a commonly noted benefit within the literature, university faculty can also reap the benefits of research publications, grants, and participation in related research consortiums (Fiume, 2016). These benefits all "trickle up" and benefit the larger university system, as they support the maintenance of a university's research track record. Though a partnering faculty member's emphasis on publications and grants can hinder partnership work, in amicable collaborations they can be a fortunate byproduct of constructive engagement.

In terms of benefits, community organizations are understood to receive improved service delivery and enhanced organizational capacity, where the latter can lead to new programming (Fiume, 2016). Affiliation with the local university is also seen as a benefits that supports community partners' ability to access greater resources and enhance their platform to advocate for community problems (Ferman & Hill, 2004). Fiume (2016), provides a rarer in-depth examination of community perspectives within partnerships. Along with the above points, community partners' also saw a personal benefit in being able to mentor university

undergraduates. They valued the ability to help students complete university assignments attached to their community placements. This interaction meant that their knowledge-base was respected and they were perceived as "co-educators". Fiume further supports this point when stating that their "professional expertise, extensive social and communication networks, and entrepreneurial skills allow community partners to assume key roles in the student learning experience" (p. 260). Community partners saw service learning partnerships as also giving community groups an opportunity to reflect upon their own practices; through access to information gained from university students and current research. Finally, community organizations understood that participating in partnership work allowed opportunities for faculty to cross institutional borders (i.e. through research consortiums), within and across university campuses. Fiume argues that "[t]his is an important benefit for all institutions of higher education as such institutional border crossings and collaborations have historically, and notoriously, been very difficult to accomplish" (p. 261) As academics can operate in research or institutional silos community engagement work, and the publications and connections they can ensue, have the opportunity to open (or create) doors that are more often closed (Silka et al., 2015). Though benefits exist, obstacles do remain in managing effective partnerships. Depending upon the engagement type, scholars highlight different obstacles occurring within both the collaboration process and how they are presented within the literature. Though overlapping concerns definitely exist the below section presents the leading issues individually affecting service-learning initiatives and faculty-led research projects.

Service-learning partnerships are continuously described as both time and labor intensive; with success often contingent upon the time spent building relationships and trust (Moore, 2014; Pasque, 2010; Stoecker, Beckman, & Min, 2010). The literature makes clear that for service-

learning partnerships' continued development, open communication between university actors and community organizations is key (Buys & Bursnall, 2007; Stoecker & Tyron, 2009; Pasque, 2010). Because university and community actors can come to service-learning initiatives with very different objectives, communication should be a constant throughout the endeavor. Scholars note that it should be witnessed in shaping the actual service learning project to examining the partnership's impact and outcomes through formative and summative evaluation (Bortolin, 2011; Stoecker et al., 2010). However, poor communication between community and university actors continues to be a major inhibitor within service-learning experiences (Birdsall, 2005; Jones, 2003; Moore, 2014). In "Delivering Value to Community Partners in Service Learning Projects", Shannon B Rinaldo, Donna F. Davis, and Josh Burunda's 2015 study confirmed prevailing research findings on service-learning experiences, while advocating for increased communication in the form of continuous faculty oversight, orientation sessions led by community partners to make their expectations clear, and the necessity of closure for partnering organization. The latter occurring when faculty provide feedback to community partners on student gains – specifically regarding the knowledge and skills students' reported obtaining from the service-learning experiences. As students are being educated in both the traditional classroom (by instructors) and at a community site (under the direction of a program organizer) constant consistent communication is needed for an optimal partnership to take shape.

Following trends from the larger engagement literature, service learning partnerships often result in uniting collectives with disparate societal positionalities – often manifesting in differing sociopolitical power, educational attainment, and potentially differing desires for the partnership itself. Bortolin's (2011) review of a leading community service learning journal, the Michigan Journal of Community Service Learning, addresses this overarching trend. She

concludes that the service-learning literature privileges the perspective of university actors – constructing the community as passive recipient and the university as active agent. She argues that this is most consistently witnessed in the design and implementation of service learning projects. Along with constructing the university as active agent, the literature also commonly features the experiences and learning outcomes of participating students over community program organizers and their clients. Though scholars' fixation on student gains has produced fruitful outcomes, it has still resulted in a noted blind spot within the subsidiary literature (Engberg & Fox, 2011; Warren, 2012). Rationales exist to explain the fixation on student experiences as well as venues deemed more appropriate to share community perspectives (Stoecker et al., 2010; Stoecker & Tryon, 2009). However, the issue of voice and representation remain within the design of service-learning experiences and in their presentation in the literature.

In faculty-led research projects, disconnects regarding power-sharing and racial/class-based biases are a central inhibitor between university and community actors (Axel-Lute, 2003; Ferman & Hill, 2004; Fullbright-Anderson et al., 2001; Nye & Schramm, 1999). In "Community-based Research Partnerships: Challenges and Opportunities," Meredith Minkler (2005) presents community partners frustrations with research poignantly described as "community-placed" rather than "community-based" (p. ii3). Minkler argues that there is a clear understanding by community partners of research occurring *upon* communities and community groups rather than *with* them. Anyon and Fernandez (2007) in "Realizing the Potential of Community-University Partnerships" encountered community groups who felt exploited by prior Stanford University researchers conducting community-based research in their communities.

Anyon and Fernandez (2007) relayed community groups' experiences, indicating that they felt researchers,

> *Spent insufficient time learning from residents and about community strengths.* Researchers had theories about how to 'fix' neighborhoods, and they focused on the community's obvious deficits and problems without exploring its strengths and assets. They did not sufficiently consider the experiences and ideas of residents before determining the partnership's course. *Given research objectives priority over community needs*. Researchers did not translate the data they collected from community-based research projects into information or practical tool that community members could use to solve local problems. *[Researchers were] not committed to long-term goals or strategies*. (p.41)

Scholars indicate that their socialization in academia, specifically in relation to its promotion and reward system make them less inclined and/or ill-prepared to intimately engage with community partners. (Ferman & Hill, 2004; Fitzgerald, Allen, & Roberts, 2010; Giles Jr., Sandmann, & Saltmarsh, 2010). In "Preparing Future Faculty for Community Engagement: Barriers, Facilitators, Models, and Recommendations" KerryAnn O'Meara and Audrey J. Jaegar (2006) argue that beginning in graduate school, academic proceedings commonly condition scholars to pursue publications and grants over the time and labor-intensive process of relationship building needed for engaged research. They go on to argue that a university culture that trains faulty to see themselves as experts in their field of study, also counters the logic that community-based research requires – seeing valuing in community groups' opinions and perspectives. A mindset that is only compounded by discriminatory social biases regarding the communities university actors commonly partner with – communities of color and the working-class (Axel-Lute, 2003; Ferman & Hill, 2004; Nye & Schramm, 1999) .

In response to these conditions, Boyer's call is continuously argued for by scholars – specifically increasing the value of engaged research and altering the hierarchical reward structure to create more of a balance between research, teaching, and service (Ferman & Hill, 2004; Moore, 2014; O'Meara, 2006; O'Meara & Jaeger, 2006). Scholars present the difficulties

faculty have existing within a university system that does not fully, or consistently, embrace university-community partnerships. Dwight E. Giles Jr, Lorilee R. Sandmann, and John Saltmarsh's (2010) illustrate this point in their review of university applications revising faculty reward policies to increase their community engagement efforts through the Carnegie Classification System. Of the 57 reviewed applications only 3 included altered language for engagement across research, teaching, and service as well as specifically outlining what community engagement would look like in practice. KerryAnn O'Meara (2006) examines how faculty going up for tenure (from assistant to associate) faired within university systems that had favorably altered their positions on engaged research in promotion proceedings. Her survey data (sample: 729 Chief Academic Officers)[21] illustrated that university administrators (across doctoral, master, and baccalaureate institutions) were expanding faculty evaluation, tenure criteria, and institutional missions to reflect an increased appreciation in community engagement across research, teaching and service initiatives. In response, the percentage of scholars submitting "engagement-related dossiers" were increasing; however, they were not receiving tenure at higher rates.[22] Though these two examples provide a snapshot in time, they are reflective of the larger context that faculty and community groups participating in engaged research find themselves. An individual college or universities' core values will go far in determining how community engagement – as research, teaching, or service – will take shape. It is often the case, that faculty interested in engaged research are operating under prescribed

[21] The study included a 50% respondent rate. O'Meara solicited the 1452 institutions identified under the 2000 Carnegie classification system. The survey questions "explored the extent of reform, kinds of reform, and CAO perceptions of the impact of reform on expectations for faculty evaluation, the faculty evaluation process, promotion and tenure outcomes and, institutional effectiveness in 4-year non-profit institutions over the last decade." (O'Meara, 2005, p. 486).

[22] O'Meara's research illustrated that at these more *engagement-friendly universities* there were changes in input. By input, faculty felt more comfortable submitting engagement-oriented dossiers when going up for tenure. However the outcome (or output), those receiving tenure, did not change.

demands that may not reward such work favorably. Or, as O'Meara and Jaeger (2006) illustrate, faculty's socialization processes, beginning in graduate school, may hinder healthy engagement efforts.

Ferman and Hill (2004) state that community groups are conscious of the peculiar position university-community partnerships can place them in; as they have the potential to be a double-edged sword. On the one hand, universities are perceived as "seemingly neutral and certainly powerful", making them good partners (Ferman & Hill, 2004, p. 246). However, on the other community actors, by association, are also enamored by this larger university context that can ultimately work against their engagement needs.

Indicators for Effective Partnerships

This subset of the literature does include indicators for effective partnerships. As Tami L. Moore (2014) states it's not that we don't know what to do, but rather, are we willing to invest in doing what we know. In "Developing Effective Service Learning", the surveyed community organizations indicated that it is the quality of the relationship between the campus and community organization that is the most important variable to determining an effective long-term partnership. The literature presents an array of partnership models to shape this collaboration (Aronson & Webster, 2007; Noam & Tillinger, 2004; Vandell, Reisner, & Pierce, 2007). The models include guiding questions, emphasize long-term relationship building, and often break up the partnership process into phases - specifically entering the partnership, conducting the actual collaboration, and establishing outcomes (Adamuti-Trache & Hyle, 2015; Jentleson, 2011; Strand, Marullo, Cutforth, Stoecker, & Donohue, 2003). Ultimately all of the models come back to the importance of communication, establishing a culture of sharing, recognition of partners' strength, and flexibility in design and execution; where shared control in project operations is

clearly visible. As power differentials are a reality that must be acknowledged, scholars argue that community partners must be shown, throughout the project, that they are an equivalent stakeholder (Jentleson, 2011; Strand et al., 2003). Anyon and Fernandez (2007) argue that this work must often begin by acknowledging the larger history of poor university-community relations. Therefore building trust and mutual respect may need to include "pre-engagement" work. For example, prior to conducting the partnership work that resulted in YELL, university partners had to come to terms with their community partners' feelings of exploitation and being viewed as lab rats by Stanford University. Or, in the Duke-Durham Neighborhood Partnerships university personnel had to understand and consciously build from the view within the community of Duke as the "plantation" (Jentleson, 2011, p. 18).

Along with partnership models, specific projects (i.e. the DDNP) also stressed the importance of legal contracts, the need to win community partners trust early on, and imbedding partnerships into university's larger outreach agendas. Though formal, scholars argue that financial and contractual agreements clarify mutual responsibilities, reporting requirements, and deadlines. Jentleson (2011) states that such agreements help to maintain transparency between partners, where "the formalities of reviewing, signing, and renewing contractual agreements ultimately added clarity and brought stability to partner relationships" (p.47). In terms of winning trust, the literature makes clear that this is the work of the university. It is their responsibility to make clear that the partnership's central priority is not the university or a faculty member's research agenda. Scholars indicate that priorities can be most readily shown by getting quick results for community groups. For example, in a service-learning partnership this can be mean getting volunteers into afterschool sites quickly to illustrate that the needs of community youth are the central focus. Finally, an effective partnership is one that university personnel have

been able to imbed into the larger university's mission or institutional outreach agenda. Returning to the DDNP, this meant having the university support the partnership's fiscal planning, the development of an advisory board, grant-writing, and endowment or fundraising campaigns.

Continued Challenges to Institutionalizing Partnerships

In the process of enacting partnership work, and consciously attempting *to do* what we *know*, challenges to the success of the overall venture can still persist. For different reasons, community-based partnership work can exist on the purview for both community groups and university systems. UPenn's president Amy Gutman's reflected upon this point in her 2004 inaugural address. Her agenda for the university's engagement focus, like arguably most universities, is meant to extend beyond their backyard – leading to local and global engagement imperatives. She argues that their institutional engagement focus will,

> help drive economic development throughout the City and the Commonwealth. And we will build our national and international leadership by sharing the fruits of our knowledge both throughout the country and world…By putting our principles into ever better practice, our Penn family will rise from excellence to eminence in our teaching and research. (Benson et al., 2007, p. 109)

Along with diverse engagement priorities Ira Harkavy, the proverbial godfather of community-university-school partnerships, argues that the common tensions present between town and gown is to be expected. That local partnership success is impeded by competition amongst, in this case, elite universities. That it is the result of the institutional focus on knowledge production, beginning in the 1950s, that leads to exploitative relations. In *Dewey's Dream*, Harkavy states,

> [O]ur basic argument can be summarized as follows: competition among American universities tends strongly to produce university-community conflict. That proposition's validity self-evident. Granted its validity it seems understandable, even predictable, that to compete with their rivals in other universities, Penn administrators and faculty frequently feel forced to adopt authoritative roles and to pursue that either result in serious conflicts with West Philadelphia residents, such as arrogantly invoking their 'academic expertise' and

> sacrificing democratic processes to achieve short-term university development goals; or sharply distance Penn from concern with serious problems that West Philadelphia residents have had to confront since the end of World War II. (Benson et al., 2007, p. 105-106).

Putting aside the lack of culpability within the statement (the system made me do it) and the supposed normative nature of community abuses that then make the work undertaken at through Netter that much more noteworthy, the sentiment stands that local partnership work is an uphill battle within the university system. Therefore, local partnerships are only as valuable as their ability to feed the university's need; making their sheer existence in opposition to the nature of the American university system, specifically the research 1 system.

Regarding the other side of the partnership coin, community partners also bring their own challenges to the partnership. As partnering community groups, which are often smaller non-profits, have their own diverse challenges that can run up against collaboration goals. Partnering university actors should be conscientious of the complex sociopolitical context community actors and organizations operate in. Ferman and Hill (2004) describe local communities as,

> replete with multiple alliances, relationships and history, and multi-layered institutional contexts including the community, the foundation world, government, and the larger political system. Divided in ways that may or may not parallel the racial, ethnic, and class differences, communities are often notable for their contested agendas, competing factions and organizations, and varying political allegiances to internal as well as external political leaders.

And it is from this context, Ferman and Hill go on to argue, that community actors can feel the pressure of associated with a local institution (the university) that has a sorted deleterious past in the local context.

Within this context scholars point to the following challenges as further obstacles to effective long-term partnerships. The first hindrance is leadership and personnel changes within both university and community sites; which can collide with changes in institutional priorities.

This was a main issue leading to the conclusion of the DDNP partnership. The retirement a key university administrative and university trustees choosing to collapse outreach programs led to a sharp change in the university's focus. Engagement funds were redirected from community programming and into downtown development in Durham. Acquiring sustained program funding is the second major issue. Community-based partnerships often derive their funding from university or foundation budgets. University budget cuts, especially following 2008 and changes in a foundation's program orientation will hamper partnership success. Regarding foundation support, scholars also note that local partnerships can have a challenge meeting funder's evaluation requirements. Jentleson (2011) states that major funders are changing their focus from project-based development to larger systemic operations with more formal assessment requirements. Lastly, the difficulties in aligning partnership programs with academic priorities and faculty research interests remain. To this point, it often comes down to selling faculty on the value of investing in community-based projects within their research and teaching. And once on board, university partners doing the work of engaging in an amicable way, a challenging but necessary fete.

Where Are We Left?

In reviewing the university-community engagement literature scholars offer detailed and reflective interventions, intent on pushing partnership practices forward. In the 2014 AHSE special issue, *Community-University Engagement: A Process for Building Democratic Communities,* Moore indicates that there are a "superfluity" of examples showcasing effective partnerships; stressing that we (as academics) know what works. However, actualizing what we supposedly know seems to be the problem. The last section outlined real issues that can stand in the way of effective partnerships, which deleterious relations – past and present – only

exacerbate. Moore's intervention requires partners to see all involved as equals – as good neighbors – engaged in reciprocal knowledge transfer. Though calls for reciprocal partnerships and power-sharing are repeatedly advocated for a persistent disconnect in the literature remains that can be summed up by the question – *who are scholars talking to*?

The university-community partnership literature, and the subset I am specifically asserting my scholarship within, for the most part, is a conversation between one half of the partnership – academics. Community voices are sprinkled throughout, and scholars such as Randy Stoecker, Elizabeth Tryon, Erica K. Yamamura, and Kent Koth who offer arguments to help to explain the absence of community voices. However, the lack of community perspective, as both authors and contributors, is a problem as this is the body of work that defines the shape of partnership work. Furthermore, within this one-sided conversation, the university is often presented as the driving force that must be cajoled to engage and share their human and material resources with their *needier* neighbors. As a result, community partner(s) are asked to wait on the university to activate partnership work. Community partners are not constructed as entities existing in complex systems in need of deconstructing, nor are they presented as requiring any particular finessing to get them to see the value in partnership work.[23] Moore, like many scholars, calls for an intervention where engagement is viewed as a process rather than a product, built upon two-way knowledge transfer. She argues that such a framework may need to come in response to a major shift or transformation in how partnerships are problematized within the literature. However, her intervention is still a framework that posits the university as the impetus for change. Ultimately, the repeated message throughout the literature, extending into the

[23] Within their research Ferman and Hill acknowledge the conflicting pressures that can interfere with a community organization's active management of a project. They argue that these realities include, "fund raising, the latest community crisis, or an impending fight at city hall" (p.248).

partnership literature in education, is that universities must see the value in engagement work, and create a context where administrators, faculty, and students can participate in it. Institutionalizing engagement in such a way will have many benefits for community partners such as administrative, staffing, and financial support; however community groups exist at the whim and changing tides of the university system.

Along with being the vessel for engaged partnerships, this logic also assumes that the university is the only one who must be convinced of the value in engagement. However, as communities are the ones who often open up their doors to short-lived programs and lofty promises; they are continuously expected to take what they can get from the university with few questions asked. There is little attention in the literature given to the costs associated with participation for community agencies and local residents (Bortolin, 2011; Ferman & Hill, 2004; Olszowy Jones & Lee, 2017; Taylor, 2009). In a best case scenario, communities are commonly expected to wait for universities or colleges to alter their missions or core values for partnerships to have the chance of becoming institutionalized, guaranteeing a longer-term commitment. They must deal with the ramifications of partnerships lasting as long as foundation support remains. Or, community groups must muster an instance of interest convergence between themselves and the university, resulting in amicable investment in a program or local need. Within the current context it is much rarer for community groups to marshal consistent leverage to establish and maintain local partnerships, with university outfits, reflective of their terms and desires.

Prevailing scholarly interventions all intend to push the engagement literature forward. Moore's for example, asserts that we may be able to achieve reciprocity through current engagement practices, but that it may have to take transcendence for amicable partnerships to take place. Transcendence, moving beyond the present engagement conversation, can take

various forms. Reflecting upon this concept in relation to my dissertation project, I am thinking about the possibilities for transcendence as the product of expansion beyond prototypical university partners and blurring the often fixed lines constructed within the literature between urban campus and community. For instance, can transcendence be the product of increased community control? What does university-community engagement look like when faculty and undergraduates are not in the picture? What can it look like when people of color move from the university into the community? Through an ethnographic examination this project allows an opportunity to expand the literature by unpacking one way to get at transcendence.

An examination of AISE offers an opportunity to problematize the complexities of what partnerships, between universities and their surrounding communities, can look like and how local community needs can be placed at their center. Through this project, I intend to contribute to the literature on university-community partnerships by illustrating how AISE wrestles with reciprocal engagement by reimagining key aspects of the partnership. In so doing, I specifically focus on three areas: (1) the scale and scope of the "university" commonly constructed within the literature, (2) continuing to assert community perspectives and the value of assets they bring to the partnership, and (3) complicating the neat divides found within the literature between the university and community "sides" of the partnership, specifically the result of shared racial identities.

In relation to the first point, the university commonly constructed in the literature is an image of the university, as system, one that is shaped by specific bureaucratic governing structures that heavily influence partnership work. These are structures that inform partnership's shape regardless of whether the university actors are the institution as a whole, faculty, or undergraduates. The governing structures include school charters, promotional proceedings, and

institutional review boards. For better or for worse, these entities can play a major role in facilitating and/or approving a university-community partnership initiative. It is clear, universities have valuable resources to offer their surrounding communities. The difficulty for community groups lies in identifying and accessing these resources. As the literature makes clear, community groups have a harder time navigating these formal channels (Barrera, 2015; Gilderbloom & Jr., 2005; Leiderman et al., 2002; Maurrassee, 2010; Stoecker & Tryon, 2009). Brokering entities like the University of Brighton's Helpdesk can be of great assistance to community partners, but they are not fixtures on urban (or U.S.) college and university campuses. AISE provides an opportunity to unpack how community control over partnership work can be initiated and maintained when dealing with a smaller, more informal, subset of the university system. The main university actors mobilizing at AISE are graduate student organizations, rather than larger formal university channels, that can more readily steer the initiative in a desired direction. Collaborating with this smaller subset allows program leadership to better control the "university" (specifically its resources) that comes into the community program. It also allows an opportunity to examine the rich networks that follow university graduate students that can be marshalled to advance community programming.

Secondly, the literature provides a sea of examples illustrating the various ways that universities can assist their surrounding communities and larger city. For example, universities are understood to contain an array of tangible resources and services that can support a city's infrastructure as well as enhancing local industries. As stated, there is very little discussion regarding the actual resources that communities bring to the partnership table. It is important to examine both the tangible resources community groups have at their disposal to support collaborative effort. At AISE, community actors bring both human and material assets to the

table. The former, for example, is witnessed in the donated building to house the program, resources for the curriculum, food, and furnishings for the site. The latter is visible in access to a school district curriculum coordinator, parental supervision in classroom sessions, administrative and fundraising support, and assistance with science fair projects. Focusing on the unique assets that university *and* community actors bring to their collaborative work allows for a more dynamic conversation regarding the resources at play in their shared endeavor.

Lastly, within the literature partnerships are often constructed as the product of two separate entities – the "university" and the "community" – that come together to produce a product. When collaborative projects and programs take place within the larger city, university members are presented as leaving their "home" within the city and entering a foreign space to participate in the partnership (Axel-Lute, 2003; Ferman & Hill, 2004; Gilderbloom & Jr., 2005; Nye & Schramm, 1999). However at AISE, in response to university personnel's race (and at times social class) these divides are troubled. AISE provides an opportunity to contribute to the small, but meaningful literature on university actors of color participating in partnership work. Though the engagement work of scholars of color is less commonly featured within the literature, their presence and partnerships often trouble commonly circumscribed divides in town-gown relations. The "us" and "them" mentality is blurred, in part, when a shared race (and class) are present on both sides of the partnership. This context also allows an opportunity to illustrate how the "community" can extend into the university system.

CHAPTER 3: AN EVOLVING FRAMEWORK: APPLYING CONCEPTS & THEORY

I entered my doctoral program with a clearer understanding of the research project I was interested in exploring. The site was always defined; however, it was my understanding of program activities and participants' motivations at the site that evolved with each trip into the field. In response to the ampleness of the collected data, I have had the opportunity to apply various theoretical frameworks and key concepts to my research. In examining forgotten stakeholders' local organizing, key concepts such as *space*, *place*, *border*, and *border-crossing* have been central to my work. On this journey theoretical frameworks such as, Anthony Gidden's structuration theory, Ole B. Jensen and Tim Richardson's "cultural sociology of space", Barrie Thorne and Jean Lave's usages of practice theory, and borderland theory have been considered or applied as lenses to shape data collection and analysis. Since investigating the processes involved in resource mobilization, across a fragmented urban landscape, are at the heart of my current analysis I have settled on a framework that appreciates the importance of both geography (real and imagined) and local organizing. The framework I am applying to my dissertation project is Edward Soja's theory of Spatial Justice. It is an investigative lens I compliment with theoretical understandings of the italicized concepts noted above. However, I will now take a step back and briefly outline the scholastic journey I took to arrive at my current understanding and usage of the above concepts and Soja's theory of Spatial Justice within this research project.

Space, Place, Massey & Harvey

There are numerous frames and scholarly interpretations surrounding the concepts of space and place. Two premiere orientations, often described as exclusive from each other, come from Doreen Massey and David Harvey. The former comes out of a postmodern tradition and the latter a Marxist. From a postmodernist standpoint, space and place are concepts that exist in relationship to each other – where a place is the unique coalescing of external spaces. They are the product of social interactions (e.g. understandings, relations, and experiences) occurring on multiple scales across time (history). These interactions are not static, and as a result create spaces and places that are ever-evolving. A Marxist also constructs space and place as interrelated terms (place can be referred to as social space), that exist in relationship to time. It is understood that both space and place's formation are heavily shaped by the prevailing mode of production (e.g. capitalism). Finally, from a Marxist perspective, space and place can be fixed and therefore exemplified as being.

In *For Space*, Massey offers an argument that moves away from space as an abstract phenomenon (commonly juxtaposed to the rootedness of place) and posits that space is not a free-floating idea, but one that is produced. It is the product of actors coming together through relations and interactions. She describes its manifestation in three ways: (1) the product of interrelations, (2) that connote a plurality of trajectories coalescing, (3) in a construction that is therefore always in the process of becoming (Massey, 2005). She argues that these *interactions* and this *becoming* are informed by historical, political, economic, and social realities. For Massey, space is not fixed, but space is *the product of* – making the conditions occurring within it situated. In this construction, Massey argues that space is a counterpart to time – where space is constructed as "space-time". Space, she stresses, must be

conceptualized in relation to time, as the social interrelations that produce space – at all scales – are occurring at a given moment (Massey, 2009). Massey asserts that this "argument emerged out of an earlier insistence on thinking of space, not as some absolute independent dimension, but as constructed out of social relations; that what is at issue is not social phenomena in space but both social phenomena and space as constituted out of social relations" (Massey, 2009, p. 2). In other words, as it relates to this project, the social phenomenon is not the operation of a community-based education program in a given context (a space), but *both* the creation of the community program *and* the context as the result of social relations occurring at a given moment in time. From this vantage, social relations produce two potential units of analysis – the context and the phenomenon.

Harvey's conceptualization of space is greatly influenced by the thinking of German philosopher Martin Heidegger and French philosopher and sociologist Henri Lefebvre[24]. Heidegger's work in aesthetic geography is key to Harvey's own framing of geography. Harvey sees geography as best personified through the combining of aesthetic and social theories (Harvey, 1990). Heidegger's concern with an aesthetic construction of space as a "traditionalist vision of the truly aesthetic political state" leads him to construct space as being (what is, having permanence) rather than becoming (ever evolving) (Harvey, 1990, p.429). Therefore, in Harvey's analysis space can be fixed. In *Space as a Keyword* he begins his argument by framing space through a tripartite that consists of: absolute space (where space becomes a thing in itself); relative space (where space exists between objects that are in relationship to each other); and relational space (where a space is the product of internal and external processes, both past and present, that coalesce in a given moment in time) (Harvey,

[24] Lefebvre's work was greatly influenced by German philosopher Ernst Cassirer.

2004). These notions of space require a juxtaposition to time to conceptualize them. Therefore, Harvey refers to a spatio-temporality when defining these constructions of space (Harvey, 2004). To further illustrate what this tripartite means in real terms, I will frame it in relation to West Philadelphia. West Philadelphia can be referred to as an absolute space (it is a thing in itself). West Philadelphia and its neighboring ringed suburbs are an instance of relative space (objects in relationship to each other). The lived experiences occurring in West Philly, the result of past and present conditions occurring both internally and externally to the actual space, can also make it a relational space. Harvey asserts that there is no hierarchy to this division of space. And depending upon the context, a given space can be one or all three concepts – absolute, relational, and relative – simultaneously.

Along with his own tripartite, Harvey notes that many scholars have constructed different ways to organize and conceive of space. As the intent of the essay, *Space as a Keyword*, is to examine "the different modalities of understanding the meanings of space (and time)" Harvey constructs a three-by-three matrix to attempt to get at the greatest diversity in space's construction through a single conceptual tool (Harvey, 2004, p.10). The matrix consists of his own tripartite and the spatial analysis of Henri Lefebvre. Lefebvre constructs space as material space ("the space of experience and of perception open to physical touch and sensation"); the representation of space ("space as conceived and represented"); and spaces of representation ("the lived space of sensations, the imagination, emotions, and meanings incorporated into our everyday lives and practices") (Harvey, 2004, p.8). Harvey asserts that though the matrix does not present an infinite understanding of space, it can still be used as a model to think through the dynamism imbedded in space's possibilities by examining the relationship between categories. What is key to point out here

is the appreciation of both real and imagined constructions of space. That ideas about a space can be just as pervasive as tangible engagements with a space. This juxtaposition surfaced repeatedly in participants' interviews. As individuals attempted to reconcile ideas associated with places and people (imagings constructed of their own doing or influenced by external sources) and actual interactions they had at AISE.

For Massey, as a post-modernist, and Harvey, a self-described progressive Marxist, there are definite distinctions in how they view space, but the distinctions do not preclude common ground within their analyses. However, a major distinction between their frames exists in how they conceptualize space's nascent construction. Massey views it as *becoming*, always in process. For her, there is no time when space stands still. It is ever evolving as the product of social relations. Yet, Harvey asserts that space can *be*, that in one of its iterations it can be defined as stable or fixed. From reading Massey's work, I believe she would take issue with Harvey's construction of an absolute space (as it requires being) and potentially relative space (as it can lead to spaces being counter-positioned against each other). However, I would argue that she could find merit in Harvey's construction of relational space. This is because it is grounded in an appreciation of various processes and factors coming from within and outside of a given space - past and present - that ultimately produce the actual context. Points of symmetry withstanding, distinctions in their conceptual framing continue in their construction of place.

Naming place, the typical counterpart to space, can have various designations. For example, it is described by scholars as a node or "particular moment in…networks of social

relations"[25]; social space[26]; a tripartite consisting of location, locale, and sense of place[27]; a short-time horizon[28], and as a territory (the political counterpart to space)[29]. Place is tangible. Place is made through routine. Place is made through experience and individuals' meaning-making.

Place was first conceptualized as a location with "meanings and attachments" in the 1970s (Cresswell, 2009, p.1). Humanist geographers who spearheaded this work, looked to move away from the prevailing notions of people as objects or rational beings. They looked to understand "the relationship 'between' people and the world through the realm of 'experience'" (Cresswell, 2009, p.4). Their examination of this *experience* occurred in *place*. Human geographer Tim Cresswell (2009), in *Place: A Short Introduction*, asserts,

> What experience does is transform a scientific notion of space into a relatively lived and meaningful notion of place. While space was the favored object of the spatial scientist (and is still the favored object of social theorists), it is the way space becomes endowed with human meaning and is transformed into place that lies at the heart of humanist geography (p.5).

In this process two major acts occur. First, place supports the validation of people's lived experiences – action and interactions informing their everyday movement. Secondly, as a unit of analysis place is endowed with meaning; therefore place can be named. However as a plurality of people, and therefore experiences, occur within a given place the ability to name it in any official capacity becomes a process imbued by power. Who's naming, whose lived

[25] Massey, D. (1993). "Power Geometry and a Progressive Sense of Place," in *Mapping the Futures: Local Cultures and Global Change*. New York: Routledge.
[26] Harvey, D. (1990). "Between Space and Time: Reflections on the Geographic Imagination," *Annals of the Association of American Geographers*.
[27] Creswell, T. (2009). "Place" Amsterdam: Elsevier.
[28] Harvey, D. (1990). "Between Space and Time: Reflections on the Geographic Imagination," *Annals of the Association of American Geographers*.
[29] Eldon, S. (2016). "Territory without Borders" in *Border Crossings: A Bedford Spotlight Reader*. Ed. Catherine Cucinella. Boston: Bedford/St. Martin's Press.

experiences, have the ability to trump his neighbor's experiences? Within place, asymmetrical power relations – the result of an array of societal categories – do exist. As the powerful begin to name place a singular identity can grow; resulting in exclusionary practices regarding who does or does not belong. Cresswell (2009) refers to such processes as the "dark side of the Heideggerean notion of place" (p.5).

Harvey also reflects upon the potential for this regressive conception of place. He describes it as a societal response to the impact of time-space compression. Harvey defines place as social space, and describes its formation as the impact of space, time, and modes of production (i.e. capitalism) on social relations. As the latter triad, of space, time, and capitalism leads to time-space compression, Harvey argues that time-space compression produces a sense of social collapse and confusion. Ultimately, as the world becomes faster and smaller (space collapsed by time) it leads to individuals clinging to notions of place. Place becomes a stabilizing context in a rapidly changing world. Harvey perceives this quest for place, for home, as contradictory because it calls for a segment of the world to slow down in the face of larger forces looking to speed the world up. He concludes that place can lead to collectives clinging to "marks of identity" to avoid a crisis of identity – as they struggle with who they are in the world (Harvey, 1990). The exclusionary and regressive sense of place that individuals can produce in response to time-space compression is irrational from a global perspective, Harvey goes on to argue, but understandable from a microcosmic perspective.

In response to a notion of place as stable, or rooted, Massey argues for what she calls a progressive sense of place. She constructs her argument in *Power Geometry and a Progressive*

Sense of Place.[30] In this essay she conceives of place as "absolutely not static", without a coherent or singular identity, where its conceptualization can be boundary-less; and where a place's specificity (or unique characteristics) are the result of uneven development and globalization (Massey, 1993, p.68). She goes on to argue in *Space, Place, and Gender* that places should not be thought of as counter-positions to each other, but rather a given place being the product of particular linkages to the outside. In other words, the outside (other places) are central to defining a given place, as they result in specific links and interconnections that help to give the place in question its unique meaning (Massey, 2009). Therefore, Massey (2009) argues that "[p]laces viewed this way are open and porous" (p. 5)

She personified her construction of place when describing Kilburn High Road in *Power Geometry and a Progressive Sense of Place*. Kilburn High Road is a bustling marketplace in Massey's north London neighborhood – it is a given place – that has its own unique identity. Massey describes the diversity present on the road through residents' ethnicities, the presence of cultural shops and restaurants, the politically-oriented signs she sees, and the international newspapers featured on newsstands (Massey, 1993). Through this street she is met by a larger global world. Her construction of a "global sense of place" is something that she not only embraces, but fully celebrates – rather than viewing it as something to be feared and retreated from. Ultimately, she argues that,

> [I]nstead of thinking of places as areas with boundaries around, they can be imagined as articulated moments in networks of social relations and understandings. And this in turn allows a sense of place which is extra-verted, which includes a consciousness of its links with the wider world, which integrates in a positive way the global and the local (p.68).

[30] Though Massey constructs her analysis as a counter to the work of theorists David Harvey and Frederic Jameson within the essay the perspective held by the latter scholars was a prevailing thought process held by humanist geographers.

For Massey, place is about processes, as place is the result of the unique constellation of social interactions it brings together. Therefore place is about social flows and routes.

Roots, Routes & Identity

Framing place as roots or routes are prevailing constructions of place in the literature.[31] However scholars argue that conceiving of place as rooted is a double-edged sword. As stated, it can lead to residents constructing it through a singular identity, longing for the past, or the more extreme - opting out of progress and history. On the other hand, one can argue that a rooted sense of place can also help to foster healthy notions of community, pride, and/or incite local organizing (DeFilippis, Fischer, & Shragge, 2010). From either perspective it is important to also stress that, rootedness, can be the result of force rather than choice. For example, the latter is the case with forced residential segregation; an American phenomenon permeated with the nation's long history of sundown town and the onset of suburbia in the mid-20th century. Routes call for an appreciation of the openness and interconnectivity of places, and therefore people. It can lead to ideas about the global family or global citizenship. As scholars who wrestle with these frames, both Harvey and Massey call for a view of place that is not regressive. Massey asks the question "how [do we] hold onto the notion of spatial difference, of uniqueness, even of rootedness if people want that, without it being reactionary"? (Massey, 1993, p.64) This is an important idea to reflect upon, as there can be

[31] It should be noted that the literature on place does include a rich subsidiary literature surrounding the concepts of "placelessness" and "nonplace". In *Place*, Timothy Cresswell, indicates that placelessness can be found within the literature as early as 1976. Placelessness, scholars argue, is the result of social phenomenon such as, mass-production and world mobility - producing "inauthentic" places. This is the prevailing logic in the concept "McDonalidization". Scholar Marc Auge argues for the relevancy of "nonplace". Nonplaces are mobile locations that individuals pass through – i.e. airports, shopping malls, and service stations. He argues that those who pass through them generate less rooted attachments. However, I would argue that this logic does not hold for those who *work* in such locations; as Auge's analysis privileges the perspective of the consumer within these contexts. Auge constructions nonplace as an instance of supermodernity – as it lacks bonds. Ultimately he views the idea of place as existing on a continuum where place is on one end and nonplace is on the other.

great value and strength in place, particularly for communities to build, learn, and, if necessary, heal together (Ndubuizu, 2011).

As scholars advocate for a healthy sense of place, it is also important to acknowledge how our theoretical or analytic pronouncements can be colored by our own gaze or social identity in place. Massey's postmodern views of place (centered on becoming and a universal space) led me to question how her diverse neighbors on Kilburn High Road may see and experience place. On one hand, she argues that Harvey's framing of place, as the product of space, time, and capitalism is too simplistic, but in the same essay constructs place as categorically open and porous (Massey, 1993). Through her argument she is presuming that all residents of Kilburn High Road experience the global sense of flow that she sees in the busy street (McGuinness, 2000). However, Kilburn High Road (and London most definitely) may be an isolating and restrictive place for the shopkeepers and their patrons (particularly for the poor or people of color), as discrimination can play a formidable role in ordering their steps. For example, Kilburn High Road may be the beginning and end of some of her neighbors' physical and mental world, cutting them off from larger societal structures and opportunities.[32] Identity matters, and as Massey constructs Kilburn High Road from her lived experiences (a highly educated, globetrotting, white female academic) her reader is presented with a particular, a singular, view of the road (Capineri, 2016; McGuinness, 2000). Sadly, as a result of social formations such as capitalism and neoliberalism, it is a privilege for a place (e.g. North Philadelphia) or a person (an immigrant buying injera at a local bodega) to be connected to

[32] The potential limitations of place and its impact on the psyche is examined in the following groundbreaking works:
Oliver, M.O. (1988). "The Urban Black Community as Network: Toward a Social Network Perspective," *The Sociological Quarterly.*
MacLeod, J. (2008). *Ain't No Making It: Aspirations and Attainment in a Low-Income Neighborhood*, 3rd ed. New York: Westview Press.

mainstream institutions and resources in meaningful ways. By meaningful, I do not mean access to consume material items or witness cosmopolitanism unfold through social media, but consistent access to opportunities that allow for social mobility. The latter including access to standard healthcare, adequate housing, viable job markets, consistent public transportation, and educational outlets. Not all places are equally porous, or porous in general. When reading Massey's work she repeatedly acknowledges how one collective's positionality in place can lead to the weakening or stifling of others (Massey, 2009). Place, she argues is the product of uneven development. She fully recognizes and speaks to difference, power, and privilege in her writing – though more abstractly than necessary at times. However, when she personifies her progressive sense of place as Kilburn High Road, the marketplace's construction is divorce of examinations of how uneven development and contentious power relations can lead to multiple constructions of the same road by its various inhabitants. A progressive sense of place, with its multiple identities, cannot be categorized as one thing; or from the understanding of one identity (one person) in that place (McGuinness, 2000). This logic counters the very important emphasis she places on the multiplicity of lived experiences found within a place. This is not the multiplicity of experiences that allows one to consume various cultures through their production, but acknowledges the actual diverse realities experienced in a given place (May, 1996). For me, Massey presents a conundrum – she fully recognizes the complexities of power and privilege in human experiences in place, but does not unpack such possibilities when crafting her exemplary *progressive place*. It is produced from one person's vantage, and perpetuates a dichotomy within her theorizing where place is described as being porous (as a matter of principle) and characteristically defined by uneven development. As "Power Geometry" is a pinnacle piece in Massey's construction of place, and Kilburn High Road is heavily cited by scholars as

personifying Massey's framework, more is needed to illustrate how collectives' diverse experiences in place shape a *sense of place* (Capineri, 2016; May, 1996).

In reading her work, I have come to a conclusion, that it may also be a difference between scholarly constructions of place produced in *theory* versus constructions in *practice*. Theoretically, place, as a general idea, can be a porous and interconnected locale. However, in practice, lived experiences illustrate the barriers to experiencing the interconnections, ultimately producing differentially porous places and people. Rather than the work of a theorist, it is the job of a social science scholar, producing empirical research on the ground – an ethnography or case-study – that would be better equipped to get at the practice of making place. They would address the important work of unpacking the multiple identities experienced in place, as well as the contextualizing the tensions (or contradictions) present between constructions of place as porous and unevenly developed. Presently, as Michael Burawoy (1998) advocates, it may be the work of research on the micro level to inform the continued production of established macro theorizing, in this case on a progressive sense of place.

Space, Place & Borders within this Project

Now that space and place, as concepts, have been introduced through two prevailing scholars I will illustrate how I am drawing upon the terms in this project. The construction of space I assert here, or more accurately see in the experiences and meaning-making of my participants, is more aligned with Harvey's framing of space. The division presented in his tripartite (absolute, relative and relational space) leaves more room for the complexities of spatial experiences I encountered at my site. Again, I do think Massey would find her own analysis, for the most part, represented in relational space. I agree with her larger ideas surrounding space and place such as, space-time being "formed out of social interrelations at

all scales"; place being a particular articulation or "enveloping of space-time" creating a place's individuality; that place includes a multiplicity of lived experiences; that is shaped by occurrences found both within and outside of the given context[33]; and that it should not be repressive (Massey, 2009, p.5). However, as a postmodernist concerned with universal space, her further articulations are more problematic. When analyses of porous interconnected places and people – contexts that are literally and psychically understood as boundary-less – are confronted with the lived experiences of those at the proverbial *bottom of the well*[34] for example – there is a disconnect that must be addressed.

In the framing of space that appears in this dissertation, it is important to outline how various spaces (experienced simultaneously) collectively produce a particular social context or place. For this project, I am examining a local response to curtailed learning opportunities within an inner-city space and school system. The latter are heavily shaped diverse spaces occurring above and alongside of them. Notions of space, the constellation of interrelated social relations, can be grouped along two axes. First, spatial contexts should be understood as existing vertically extending from the individual to the global; though for the present study I will focus on the neighborhood as the lowest tier. For example, education policy reform occurring on each of these levels (international, national, state, and city) will impact schooling experiences in a given local context – e.g. an elementary school in the Kensington neighborhood of Philadelphia. If fortunate, policy stipulations that hail from these multiple government organs will overlap in purpose; however, this is not always the case. Therefore a

[33] The idea that a given place is the product of its interconnectedness to other places makes complete sense to me. However, it makes sense because I perceive places, on one level, to be bound. It can physically and/or mentally end. I do not understand how Massey can argue for an understanding of places as interconnected and influencing the formation of other places – when place does not have a literal beginning and end. I do not mean to appear trivial, but this is a fundamental point to her argument regarding place. How can a given place inform the making of another locale when places do not begin and end?

[34] Bell, D. (1993). Faces at the Bottom of the Well: The Permanence of Racism. New York: Basic Books.

school or school district can undergo the burdensome demands of meeting the requirements of governing bodies existing on multiple vertical spatial scales at the same time. This interconnection of spaces also speaks to the idea of space-time. In this instance social relations from multiple vertical spaces are being experienced simultaneously, so that spaces are being compounded by time.

Secondly, across the horizontal axis spatial constructions also exist alongside of each other. Existing on the same plane, these constructions are produced in relation to each other. In a metropolitan region, for example, various horizontal spatial contexts co-exist. Space can be delineated in terms of a center-city, an inner- city, an outer-city, and various ringed suburbs. These spaces are the product of distinctive histories, movements, peoples, and power. On this axis, individuals can gain some understanding of who they are and what it means to live in a particular space, through shared knowledge (or assumptions) about relative spaces. As can often be the case, by naming the "other" we name ourselves (Holslag, 2015). Ultimately, an inner-city schooling experience is heavily shaped by multiple vertical spaces existing upon it as well as horizontal spaces existing alongside it. Through the aforementioned framing these spaces are simultaneously instances of absolute, relative, and relational spaces. These spaces play a formidable role in AISE's creation and continued operation – as well as informing individuals attitudes about the context that houses the program and the opportunities such an inner-city space affords its residents.

In this analysis space and place are interdependent terms. As space, existing on both the vertical and horizontal axes, presents contexts that shape everyday experiences – those conditions materialize within an actual site. To this effect, these conditions must *touchdown*, and when they do they are experienced within place ("social space" and "an enveloping of

space-time"). In this project I am looking at the formation of place by inner-city residents through a community-based OST program. Program participants make place through their actions and meaning-making, as they are experiencing (both real and imagined) processes existing on scales occurring above and alongside of them. In *Between Space and Time: Reflections on the Geographical Imagination*, Harvey reminds us that our perception is bound by our material, social, and political setting. AISE, the place formed by these inner-city residents was produced in response to a lack of porousness in the larger city, specifically for its long-term residents of color. The local context indicated to these community groups that educational opportunities, and the ways that black youth imagine themselves and their own possibilities were stunted. Through AISE, communities organize to connect young people to hands-on learning experiences. In the process, these community groups illustrated instances of the capital and potential to broker resources from both within and outside of this inner-city black neighborhood. What they produced, in some ways, extends beyond the possibilities available in even the most equipped formal learning environments, as unique forms of capital traversed space to produce this place.

When delineating space and place within this project it is important to contextualize the relevancy of a place's beginning and end – its boundaries.[35] Participants shared understandings that they were physically and psychically existing and entering distinctive places when moving to and from AISE. They made clear that places, i.e. Melvin, had boundaries that were framed by a border. Melvin is a place that's borders have moved overtime as its terrain expanded westward with university administrators' increased investment in Pendergrass real estate. Administrators' intentions being to make more of the city "livable" for university community

[35] References to program participants' views in this section are noted through pseudonyms.

members. In response, such expansion often resulted in pushing out populations seen as undesired for the newly developed terrain. Arguably the most noted example in this case being the forced removal of a working-class African-American community and the demolition of their neighborhood when Frankfield University initially looked to expand its borders from the actual campus into the city (Palmer, 2000; Webb, 2013). The leveled neighborhood was called the Black Bottom and it was demolished to create Melvin (Orso, 2015; Puckett & Lloyd, 2015). Beginning in the 1960s, Melvin's terrain and subsequent border has expanded westward by approximately 20 city blocks (Williams, 2017).

As history shows borders are malleable and the product of social relations occurring overtime. As a bordered, fragmented landscape, encapsulates experiences in this inner-city context scholarly constructions that appreciate a place's malleability was essential. Stuart Elden (2015) in *Territory Without Borders* argues for a re-articulation of our prominent theorizing on territoriality and borders[36]. He argues that rather than the border being the common starting point to define a given territory, that we flip our analytic orientation beginning by first examining the formation of a territory (or place) by contextualizing the sociopolitical and economic conditions, past and present, that produced it. Once we have contextualized the formation and evolution of the territory we can better appreciate the border, and the malleability of the border, that encloses it. He states that "the standard definition of territory, as a bordered, bounded…space is actually an impediment to understandings of geopolitical relations" (p.25). With Elden's reorientation, we can better develop an

[36] For Elden, territory, is the political counterpart to space. Elden's framing of territory as a "multi-faceted concept and practice, one which encompasses economic, strategic, legal, and technical aspects, and can perhaps better be understood as the political counterpart of the homogenous measured, and mathematicised notion of space. Territory…is thus a rendering of the emergent concept of 'space'". Stuart Eldon, "Territory without Borders" in *Border Crossings: A Bedford Spotlight Reader*. Ed. Catherine Cucinella (Boston: Bedford/St. Martin's), p. 27-28.

appreciation of not only how a place's borders take shape, but such an orientation will also allow us to understand that borders can and do change (as places change). Borders are not fixed or natural, they are a man-made phenomenon, the product of social relations within a territory, rather than the other way around (Eldon, 2015).

As borders demarcate places they can also play a major role in defining understandings of who belongs where and the types of opportunities that one is supposed to find within them. As places both begin and end for my participants, it is very common for individuals to cross those borders for work or play. Though geographic and cultural border-crossing is a daily occurrence for many people, it can be undertaken with different levels of ease depending upon various sociopolitical and cultural conditions (Hagen, 2015). Crossing local borders can incite an array of emotions such as, fear, curiosity, anxiety, or surprise as people move into locations that were previously unknown or viewed as off limits. It is this type of border-crossing, within the city, which will be unpacked within this project. Communities traversing local borders within the city of Philadelphia allows AISE to operate each Saturday morning creating rich learning opportunities for local black youth. This engagement has resulted in border-crossing that has produced both expected and unexpected outcomes for program participants.

Soja's Theory of Spatial Justice: An Introduction & Application

To this point I have unpacked essential theoretical concepts that relate to my participants' movement through the city's landscape to create AISE. Within this project I intend to apply my examination of these concepts – space, place, borders and border-crossing – into a larger theoretical frame to help me examine my collected data. The theoretical framework, as is the case with all theories, will help to orient my gaze regarding the meaning-making constructed by my participants. Traversing the city's landscape was an essential

component to not only understanding the brokering and movement of invaluable resources, but also to how individuals made sense of themselves and their travels in and through space. As I searched for a framework that would help to explain the world constructed at AISE I came across Edward Soja's work on spatial theory and justice. In *Seeking Spatial Justice*, Soja (2010) introduces his theory, making clear that it's a theory in process. It is a framework developed in large part in response to organizing initiatives (i.e. the Bus Riders Union, Justice for Janitors, and the Los Angeles Alliance for New Economy) in Los Angeles during the 1990s and the scholarly contributions of university departments, like his own Department of Urban Planning at UCLA. Soja's department played a pivotal role, specifically in the 1990s and early 2000s in maintaining a productive, though rare, synergy between the university and local LA community organizing bodies. At the heart of Soja's framework is a call for scholars and practitioners to realize the intersectionality of social justice and geography. An orientation that Soja connects back to Henri Lefebvre's call for the "Right to the City". Ultimately, Soja frames his theory of spatial justice around three main points. He argues that (in)justice occurs on every societal scale; where (in)justice affects all aspects of life creating uneven development and differentiated opportunities; and finally geographies of (in)justice can be changed by human action. As Soja's scholarship calls for practical relevancy, his theory of spatial justice includes the necessity of spatial strategies to turn theory into practice. The latter is a fete that he admittedly describes as challenging, but one that is vital as he is advocating for the pursuit of spatial justice in real terms.

Along with the above overarching premise, Soja's theory calls for the following constructions to define the unfolding of human existence. First, human existence, occurring within a given context (place), is the product of a socio-spatial dialectic. Within the dialectic,

social (societal), temporal (history), and spatial (geography) constructions are conceived as equal processes simultaneously informing human existence. This orientation, towards a triple dialectic, as the fundamental qualities of human existence runs in the face of more common constructions of human life being the product of a double dialectic – social and temporal – where the spatial is perceived as neutral background. Soja argues incessantly on the need for geography (space) to be perceived as equivalent to social and historical processes. In this reconceptualization Soja stresses that geography is: (1) socially produced (for good or bad), where we make our geographies as we make our histories, (2) geographies are not made in vacuums, but rather in contexts layered with socio-spatial processes, (3) as geography is socially produced it can therefore be changed. Secondly, Soja's theory calls for a "new spatial consciousness", an orientation rooted in the three dimensional approach described above. Within Soja's "new spatial consciousness", human consciousness is the result of social, temporal, and spatial processes that are both *real* and *imagined*. Soja goes on to say that our "geographies like our histories, take on material form as social relations become spatial, but are also creatively represented in images, ideas, and imaginings" (p. 18). As a student of Lefebvre, Soja asserts that how we imagine ourselves and others is just as essential to our worldview, sense of place, and notions of belonging as any real or literal event. Third, as human existence is the product of three fundamental qualities, equal in force and purpose, Soja argues that it is essential to realize that socio-processes (i.e. social, political, economic, and cultural) shape geography, but that geography also shapes socio-processes.

We have moved beyond the fact that geography is not neutral, and Soja's next argument is that through human action (a point that I stress more than Soja does in *Seeking Spatial Justice*) geography is *doing*. It is vital to Soja that we realize that geography informs in the

same way that socio-political processes inform. For example, an African-American community, disconnected from many mainstream institutions and resources turns inward in response to their sociopolitical and economic isolation, producing viable networks within a "saved" community (Oliver, 1988). Instances of geography informing social processes are seen in Tulsa Oklahoma's Black Wall Street and the poverty-stricken and dynamic black community featured in Carol Stack's *All Our Kin*. To the contrary, an instance of social processes informing geography occurs when governmental and corporate entities erect a highway through a predominantly black neighborhood in the 1950s and 1960s. A local manifestation of this national phenomenon occurred in St Paul, Minnesota with the erection of inner-state 94 through the center of the economically and culturally prosperous Rondo neighborhood.[37] As a national act, highways were placed in areas viewed to have the most inconsequential "use to exchange value,"[38] connecting the center city to the area's ringed suburbs. This process, occurring in urban African-American neighborhoods, spoke to two larger forces that worked against the development of the black community. First, it reflected the fact that African-Americans, as a collective, did not have the political clout or connections to stop the erection of the highway through their community. Secondly, placing the highway through Rondo's economic hub forced African-American consumers to shop outside of their neighborhood in mainstream, or white-owned, establishments. Ultimately, social processes

[37] Rondo's destruction returned to the St. Paul news in 2016 with the death of Philando Castile. One of the most widely covered protests, following Castile's murder, took place during rush hour on I-94. Protesters gathered on the highway and halted traffic for hours. The location was selected as a symbol of the continuous dismissal of black lives in the Twin Cities area. However, outside of local black communities the symbolism was frequently lost or went unacknowledged (the latter on the local news).

[38] Use value: reflects a land's value in its current state. Exchange value: A land's projected value if sold or repurposed. In this context "value" is determined by its usefulness to bureaucratic structures to support the socioeconomic well-being of mainstream communities and economic growth of the metropolitan region. Neil Smith, (2008). *Uneven Development: Nature Capital and the Production of Space*, 3rd ed. Athens: University of Georgia Press., pg. 49-51.

create instances, the result of human action, that combine to make geographies. With time, geographies can impact social processes going forward. And individuals respond to their built environment (geography) as they engage in subsequent human actions. A cyclical process then ensues, where geographies and social processes feed each other. Now, the *doing* of geography is where some geographers such as, David Harvey and Manuel Castells part ways with Soja.[39] Henri Lefebvre, as a sociologist, made the same assertions as Soja (regarding the *doing* of geography) in his scholarship surrounding the "Right to the City". Soja notes that Lefebvre, for his argumentations surrounding this socio-spatial interplay, was dismissed by geographers for decades. And it has been within the last couple of decades that a renewed interest in his arguments has surfaced. Soja would refer to the above examples – instances the results of the socio-spatial dialectic – as inconsequential and consequential geographies. The latter resulting in uneven development and locational advantage and disadvantage. To be clear, concepts such as "uneven development" and the severity of its generational impact have been advanced by many scholars. However, Soja's emphasis on geography and its impact in creating, maintaining, and confronting instances of uneven development is of great value to help unpack the experiences and perspectives shared by my participants. Finally, just as Soja's theory aligns, but also diverges from the thinking of Harvey (and Massey), Soja's theory moves beyond Lefebvre's understanding of spatial justice and the Right to the City. Soja frames the parameters for the quest for spatial justice beyond a class-based conflict rooted in reclaiming the literal city. Through the inclusion of scholarship by other geographers such as

[39] The socio-spatial interplay, a doing on the part of geography, was viewed as a distraction – especially for Marxist geography. They saw this interplay as a distraction from the work of capitalism to shape the environment as well as individuals' lives. It is interesting that David Harvey does acknowledge capitalism's need for "spatial fix" - where its forced to recalibrate, in response to the context (geography), for its own survival. Soja states that this is as close to a socio-spatial interplay as Harvey is willing to venture.

Iris Marion Young[40] and Mark Purcell[41], Soja advances a theory that posits the necessity for spatial justice across multiple unjust geographies. These include race, gender, ability, language, sexuality, and environmental justice.[42]

Through a theory of spatial justice, rooted in a multiplicity of unjust of geographies, Soja asserts that an opportunity is created for coalition building. When the theory turns to practice, as organizing and social protest is the ultimate objective, the quest for spatial justice will be strongest if forged through a coalition. Soja argues for the centrality of coalition building, on one level, as everyone feels the brunt of unjust geographies.[43] A sentiment that I believe is somewhat trite; potentially a slippery slope where those who have felt the brunt of historical and/or systematic injustices impinging their daily practices for generations can be glossed over. However, the idea of coalition building across difference is well founded. As coalition building is at the heart of AISE's operations and through it community is formed, I think it is prudent and the work of a thorough ethnographer to unpack and contextualize participants' meaning-making in and across various unjust geographies.

Throughout *Seeking Spatial Justice*, Soja makes clear that he is developing a theory intended to speak to human existence. This theory "in process" presents important ideas for AISE's examination such as, New Spatial Consciousness, the cyclical relationship of geography and socio-processes, and his conversation on coalition building. The centrality of a

[40] Young argues for a "multisided concept of oppression". It consists of five interacting forms: exploitation, marginalization, powerlessness, cultural imperialism, and violence. I.M. Young (1990). *Justice and the Politics of Difference*. Princeton: Princeton University Press.
[41] In terms of the "Right to the City", Mark Purcell's argues for a multiplicity of agents and targets within a given space. Where the fight can include unjust geographies pertaining to social conditions such as race, sexuality, and environmental factors. M. Purcell (2008). *Recapturing Democracy: Neoliberalization and the Struggle for Alternative Urban Futures*. New York: Routledge.
[42] Soja's scope, extending beyond the urban city, it rooted in New Regionalism. The latter concept encapsulates both the metropolitan region as well as multi-national regions.
[43] E. Soja (2010). *Seeking Spatial Justice*. Minneapolis: University of Minnesota Press. pg. 24.

spatial consciousness rooted in a dialectic that addresses the impact of both real and imagined constructions of space and place will be essential in unpacking experiences at AISE. For example, real and imagined constructions of place play equally important roles in determining why participants choose to continuously participate and how they understand the program's impact in the lives of those it serves. The ideas surrounding a given context (a place) are both pre-constructed and constructed anew by people's socio-spatial actions. We make, remake, and unmake places. A theory that requires me to keep at the forefront ways that AISE's participants make, remake, and unmake socio-spatial realities through weekly participation is vital. Subsequently, the emphasis the theory places on coalition building will provide an approach to help me think through the coalition building taking place at AISE. Coalition building at AISE occurs across various, often unjust, geographies within the city; that I will use to help shape my theoretical investigation. The geographies include religion, education, race, and university-community partnerships. A main intent in problematizing the coalition building present at AISE, is to help shape my discussion surrounding AISE as a community of practice. In this way this theory will help me unpack how participants, existing in a self-described community, understand their collaborative efforts. I will unpack the common threads of spatial injustice that unify program participants, as Soja recommends, but will be vigilant in my analysis and writing to address the distinctive ramifications of unjust geographies impacting their movement in and through space – to continuously enact AISE. Again, though not of central import within Soja's presentation of the theory, it is important to me that this analysis contextualize the distinctive experiences informing the actions and decision-making of the various actors who choose to participate in this site. An ethnographic investigation, predicated upon individual meaning-making, will be central to this point. Through the coupling of the key concepts and Soja's

theory of Spatial Justice, this frame will provide a rich lens to help me think through my data and the socio-spatial context my participants moved within.

CHAPTER 4: METHODOLOGY & DESIGN PROCEDURES: CONSTRUCTING ETHNOGRPAHIC SIGHT

In every academic disciple scholars are trained to engage in the inquiry process under a particular "scholastic rubric". All disciplines have their operational niche and the ways they look to train their students *to see*. Ethnography is no different, as a practitioner, I have been given tools, techniques, and empirical knowledge to embark on a research project with ethnographic sight. In the following section, I will very broadly introduce its acquisition and ways it has oriented how I see my site and framed my research project. An ethnographer looks to develop their *vision* in two major ways. First, by being cognizant of the self in the field. And then, while doing the former, maneuvering within a site intent on unpacking situated social realities. My efforts to obtain ethnographic sight have been an ongoing process, informed by my multiple research trips and work completed before and after leaving the field in university seminars – specifically method courses.

As the intent of ethnography is to study "groups and people as they go about their everyday lives" being cognizant of who I am as a researcher is essential (Emerson, Kretz, & Shaw, 2011, p. 1). In gaining ethnographic sight, understanding who I was in the site, required me to intentionally engage in reflective practices that helped me think through my positionality. These practices included, unpacking my role as the researcher, reflecting upon my insider/outsider status, journaling periodically to personally "check-in" (specifically while in the field), and thinking through the privileged positionality I held in being able to write about occurrences in this space. Reflecting upon who I was a researcher (and temporary program participant) was a point I frequently came back to as I returned to my research site on different occasions. As Lois Weis and Michelle Fine (1996) state in "Writing the 'Wrongs' of Fieldwork: Confronting Our Own Research/Writing Dilemmas in Urban Ethnographies" ethnographic

research is the product of the person doing, "the doing" (p. 263-264). They stress the importance of the ethnographer in the research process, as it is a person who will put flesh to bone. A person will put their learned tools, empirical knowledge, and theoretical understandings into practice. A person will ultimately act as translator, sharing practices and accounts from the site with a larger, often external, public. As the acquisition of ethnographic sight was a two-part process, along with reflecting upon myself as the doer, my outlook was also rooted in understanding how my gaze was bound by space.

In *On the Case: Approaches to Language and Literacy Research*, Anne H. Dyson and Celia Genishi examine the construction of the literal boundaries that orient one's ethnographic work, and ground the development of their sight. An ethnography, they argue, is the investigation of a bounded phenomenon (Dyson & Genishi, 2005). A bounded phenomenon is a case, or instance, of a larger social reality. It reflects a "parts to whole" paradigm – where a situated occurrence (an event, location, or practice) offers an example to better appreciate a larger more abstract idea or situation (Dyson & Genishi, 2005, p. 3-4). Therefore, an ethnography, through its detail, provides more nuanced understandings of a micro setting, while its conclusions support understandings of larger phenomena. For example, my bounded phenomenon is understanding how resources (both human and physical), from an often segregated urban landscape, come together to inform the implementation of community-based enrichment programs. This phenomenon is examined as it is enacted in the formation and weekly operation of Adventures in Science Education (AISE).

Contextual Framing

Ethnography, as a methodology, contains various subfields such as, realist ethnography feminist ethnography, and school ethnography. The above construction, the processes involved

in acquiring ethnographic sight, relate to ethnography in general – as a methodology. However its subfields will have their own distinctive nuanced features. This dissertation project is an instance of critical ethnography. A central premise of this framework is to engage in research that advances social transformation and equity (Anderson, 1989). Critical ethnographic work can either be the product of a researcher's direct participation in practices at a research site and/or through their writing. In the latter, the researcher is presenting the transformative work occurring within a given context undertaken by other actors. As a participant-researcher, I did undertake central administrative duties while in the field – making me a *momentary insider*. However, the scope and breadth of the transformative programming taking place at AISE extends well beyond any roles I completed during my time in Philadelphia. As a result, this project is an instance of critical ethnography as it examines the mobilizing efforts of inner-city actors (external from myself), creating an educational program that looks to transform aspects of students' schooling experiences.

Examining programming at AISE calls for an appreciation of the dialectical interplay between macro and micro processes and factors occurring within and upon the site. Contextualizing such conditions is at the heart of critical ethnography and its call for "critical wholism" (Anderson, 1989, p.253-254). Imbedded in this concept is the understanding that social meanings are constructed within a given context that is not only defined through cultural, but also political and economic factors (Simon & Dippo, 1986). A desire for social transformation that creates more equitable realities is at the core of critical ethnography, making individual and collective engagement with oppressive macro processes and factors of central import (Fairbanks II & Lloyd, 2011). In relation to my project, this reality is center-stage in my examination of

community groups attempting to reimagine the possibilities imbedded in an inner-city neighborhood to bolster youth's educational access and learning experiences.

Engaging in this push and pull across, and within, social scales results in an examination of social structures and human agency. Investigating the dynamics of "structures and agency" has occurred in various iterations by scholars such as Bowles & Gintis (1977), Bourdieu (1977), Giddens (1986), Willis (1981), Giroux (1984), and Ortner (1997). It problematizes how individuals negotiate relationships with larger social structures. Such an analysis is integral to critical ethnography as it calls for the privileging of both social structures and historical framing to unpack meaning within a given site (Simon & Dippo, 1986). Within this project the interplay between structures and agency, rooted in a historically situated context, would be incomplete if it were not grounded in a clear appreciation of place. As Edward Soja (2010) argues, place (and its counterpart space) as geography is an undertheorized concept. It is not a neutral background that social actors act upon. All three facets, structures, human agency, and history – manifest within a physical location. In this sense, all three facets are made by place (the physical location), while simultaneously making place (Cresswell, 2009). Such *makings* are rooted in the significance of race, power relations, and ideology - shaping both actions and understandings of their meanings. To unpack the realities present in my research site, an engagement with structures and human agency, contextualized within the real boundaries of a historical place (an inner-city Philadelphia community), is at the core of this ethnographic investigation.

Design/Methods

Site Selection

AISE's website indicated that it was created with the intent to:

> increase access of elementary aged students to scientific professionals who are also underrepresented minorities, provide hands-on activities to apply scientific concepts, and act as a conduit for public science education. Ultimately, we want the program to stir children's interest in science while strengthening their observation, logic and communication skills.

At the time of this project, AISE was in its 7th year of free program operations. Its leadership reached the above goals, serving Philadelphia residents, in four distinct ways. First, it served youth in grades 2-5 through a weekly, hands-on STEM program[44] that operated from October to May each academic school year.[45] This was AISE's seminal program offering. AISE was in sessions each Saturday from 9am to 12pm, where instruction was broken up by grade. Beginning in its 3rd year, approximately 25-35 children were served each Saturday morning[46]; with AISE becoming a fixture in the lives of many participating families, as sibling groups matriculated through the program. Second, since its third year, AISE provided an outlet for students in grades 4-9 to participate in the city and regional science fairs. Philadelphia's Percy L. Julian Science Fair is the largest urban fair in the country, receiving more than 1,000 entries each year. Third, in the spring of 2010 AISE began hosting citywide science events directed towards inner-city community residents. The main event being a science bazaar, with hands-on activities accessible to both children and adults. Lastly, as students matriculated out of AISE's weekly program, staff created, what I refer to as a "STEM pipeline" within the city to keep students connected to the

[44] Note: I use the moniker "STEM" and the phrase "science education" interchangeably in this project. I take this liberty because program participants did the same when presenting AISE's offerings. For a more detail discussion, please see *footnote 5 on pg. 6.*

[45] The program is structured around 3 modules: earth science in the fall, physical science in the winter, and biological sciences in the spring.

[46] I note the 3rd year because it was at that time that the program was fully operational, serving grades 2 through 5. The program began in 2008 with 2nd and 3rd grade. It added one grade each year, concluding with 5th grade.

city's expansive STEM programming. This "pipeline" is an informal network, connecting program parents and AISE's alumni to community-based STEM outlets such as, programming offered through The Franklin Institute and The Academy of Natural Science of Drexel University. AISE's directors, specifically Dawn Henry who volunteered at the Franklin Institute, maintained relationships between AISE and the two institutions' outreach coordinators.[47]

AISE, in large part, was a response to educational disinvestment and shifts in educational mandates coming from the city, state, and federal levels, which were impacting schooling experiences in Philadelphia. Personnel in the city's public schools felt the burden of meeting state and federal benchmarks in consistently under-resourced schools. As an effect, curriculum was streamlined along lines of funding, testing, and staffing restrictions (Gabriel, 2013a). In light of these circumstances community groups came together and created a space that not only supplemented students' formal learning, but expanded upon it through program features, difficult to replicate in the traditional classroom. These features included hands-on experiments, small class sizes, instructors trained to become scientists at a premier research institution, scientific professionals as special guests, and community-related science events. In our current era of chronically under-resourced inner-city schools, AISE was one example of a community-centered response meant to expand learning opportunities and young people's social imaginaries.

Participants

AISE was comprised of local *youth*, who are program participants; *religious groups*, who provided the main networks for recruiting program participants, were program staff members,

[47] In all of my academic writing where AISE is featured, in alignment with my university's IRB procedures, I refer to the community organization, program participants, community institutions, and city streets through pseudonyms. Their privacy and anonymity are maintained; however, the city that calls this community organization home is named. Naming the city is important to contextualizing the impetus for AISE's creation and change over time.

and donated program space; *program parents*, who acted as program staff, provided material resources for the space, curricular tools for science demonstrations and students' individual science fair projects, and physical manpower when needed; *university graduate students*, who acted as volunteer instructors; program staff, and some performed intermediaries roles between various community and university outlets; and *auxiliary support staff*, who consisted of former and current public school teachers and administrators who helped to develop the initial curriculum and offered staff and volunteer training sessions. My participant pool for the project extended to the entire program as all members had valuable insights to share regarding the program and what it offered. Therefore, I received consent from program staff, volunteer teachers, parents, and students to participate in the study. Within this participant pool, key informants helped me navigate the site and coordinated valuable introductions with different program participants. My key informants were the two program directors (James Gentry and Dawn Henry) and a longstanding volunteer instructor (Natasha Rodgers). The latter helped me to gain initial entry into the program. The former helped me navigate the program during my various trips, specifically the third trip when I was at the site for a year. I will use this section to briefly describe my various research participants. Please note, a chart detailing all of the program participants featured in this dissertation is included in the appendix. I have also created a document entitled, "Participant and Location Profiles" which provides extended background information on each participant whose recorded voice appears in this dissertation.

Program staff

The program staff who participated in the study were the two program directors, administrative coordinator, and parent liaisons. During the program's first 3 years the parent liaison role was fulfilled by a single parent. However, during my 3rd, and most extensive,

research trip the parent liaison role was broken up and fulfilled by a group of program parents (and grandparents).

The main two program staff who supported my research efforts were the directors. The founding director, James Gentry, had been integral in opening up the site to me. Mr. Gentry was key in allowing me program access that went both broad and deeply into program operations. He was a central node in the networks utilized to create the program and sustain its operations. At the time of the study (and continuing as of present writing) he was a local Pendergrass neighborhood resident with ties to various religious communities, the public school system, and the local university that the volunteer instructors came from. He was an African-American male in his late 40s who resided in the inner-city community that housed AISE for approximately 15 years. He was a formidable "broker", moving between multiple communities typically understood as closed off from each other. His reach was not all permeable within the city's segregated terrain, but his ability to *geographically code switch* was key to the program's continued success. Dawn Henry, executive director, also played a formidable role in opening up avenues to me, within both the program and the university system that the volunteers came from. At the time of the study, she was an African-American female in her early 30s. Beginning as a founding member and volunteer instructor, she transitioned over time to become the program's curriculum coordinator and then executive director. She, like Mr. Gentry, wore different hats within the program. Her doctoral degree from the partnering university opened up channels within the university system that did not open as wide for others (including Mr. Gentry). She maneuvered within university and community outreach networks, the predominate graduate student organizations that staffed the program, and the expansive citywide STEM community. Between her former status as a local graduate student and her role as a young professional in a

biotech firm, Ms. Henry had cache that allowed her to engage in various border crossing activities.

Volunteer Instructors

The volunteer instructors were all doctoral and post-doc students from a local university.[48] They varied in race, age, gender, connections to the local black community that housed the program, knowledge of students' formal educational experiences, history working with young people, and years with the program. All staff were receiving advanced degrees or continued training (post-docs) in the natural sciences. Beginning in 2010, I began documenting accounts from volunteer instructors, specifically conducting interviews and completing classroom observations. The initial program volunteers were, majority, people of color, with most of them being African-Americans. A handful of the initial volunteers were members of neighboring research labs on the university campus; they strategized with Mr. Gentry about the program's framing over lunch periods. All of the initial graduate students of color were members of, Increasing Access For All (IAFA), a student organization for underrepresented minorities in the biomedical sciences. By fall 2009, AISE became IAFA's main community outreach partner. It provided the program with both volunteers and funding support. The intent in securing students of color ("scientists" as they are described in the program) was to present inner-city black youth with instructors who looked like them. They were visual representation, constant reminders, to help the kids see that they belonged in the natural sciences. In the words of Mr. Gentry, to help the children understand "that they too could become scientists".

[48] The program included one non-graduate student volunteer in its history. She was a local public school teacher, and African-American, who volunteered with the program during its first three years.

Since AISE's inception, IAFA and word of mouth advertisement were and, as of this writing, remain the main avenues to secure volunteers. However, in AISE's fourth year, as word spread amongst students in the biomedical sciences, the program began to see increased interest from white and Asian graduate students – which specifically translated into an outpouring of white female volunteers. On the one hand, Ms. Henry described this change in volunteer demographics as a good thing, it showed a diversity in graduate students interested in an inner-city community program and the educational experience of black youth. On the other hand, she realized that this change in the volunteer population could also disrupt a core program objective – "increase access of elementary aged students to scientific professionals who are also underrepresented minorities". Ultimately, program staff concluded that it was a balancing act – between veteran and new volunteers – that had to be both acknowledged and consciously planned around. Program staff determined that they would consciously work to maintain the program mission of offering a space where black youth were able to access scientists who looked like them (i.e., specifically African American graduate and post-graduate students), while also, welcoming volunteers who may not be racial minorities (though often gender minorities in the sciences), but who were invested in the program's mission to expand learning opportunities. During my third research trip this juggling act was on full display.

Program Parents and Students

The program parents at AISE tended to be mothers. Program staff had solicited parental support to maintain logistical and administrative duties for the program. For example, each session parents maintained student and parent sign-in sheets, provided snacks on a rotating basis, played a central role in monitoring their children's science fair projects, purchased minor furnishings for the house and materials for group experiments, and supervised student behavior

when necessary in program classrooms. When I began interviewing program parents in 2010, I met a diverse collective whose involvement and timeframe with the program greatly varied. For some, 2010 marked their first year with the program and for others, AISE participation had become a family affair. In the latter case, siblings had matriculated through the program's 2nd to 5th grades, with some alumni continuing on through their science fair participation in the city and regional fairs.

Program students attended schools across the city's diverse educational landscape. These included traditional public school, private school, parochial school, charters, and cyber schools (online charter schools). Though program students were enrolled in an array of schooling environments, program parents stressed that their children's participation at AISE greatly supported, if not took the place of, the science education their children received in their formal school settings. The student population was all black, reflecting the larger community that housed the program. By the time of my first research trip (spring 2010), program students were pretty evenly split between black Muslim and Christian youth (religious channels were the main recruitment avenue). Philadelphia (specifically West and North) are home to a large African American Muslim population, which makes AISE quite representative of the African-American population in the city. The inter-faith presence at AISE resulted in residual benefits, specifically opportunities to challenge religious tensions felt in the larger city and build relationships amongst local residents less likely to have meaningful engagement with each other outside of this space.

Role of the Researcher

I was introduced to AISE by a close friend who volunteered at the program. AISE initially appeared in the conclusion of my master's thesis as an example of the intervention I was

asserting in that project. It became my main research site within my dissertation. My third research trip marked a shift in my identity (for a period) from not only a researcher, but a participant-researcher. At that time, along with completing my ethnographic research I also took on administrative duties within the program.[49] This dual role created a clear insider/outsider perception within me. Staff expected me to complete administrative work, which I gladly performed, as I wanted to lend a hand to an organization that operated on a 100% volunteer pool. During the 2013-2014 academic school year, my third trip, my administrative duties included: updating program curriculum, setting up classrooms for the weekly Saturday program, helping to develop evaluation measures to assess the students' comprehension and retention of program content, attending a grant-writing seminar and participating in grant writing, and contributing to AISE's social media presence. Though I no longer see myself as a program insider, I remain connected through communication with the program directors, grant writing, and conference presentation with one of the two program directors. I currently see myself playing a support role, but one that is much more sporadic. However, no matter how internal my place was at the site to program proceedings, because of my researcher identity my physical presence was always temporary – making me an outsider. Within my four trips, (described in detail below) because I was a researcher, I was there with a particular agenda – to learn with and from program participants.

As an African-American woman in her late 20s to early 30s while in the field, my racial and gendered identity greatly informed my movement in both the inner-city context (particularly moving to and from the site) and at AISE. In many ways being a black woman helped me to "fit"

[49] As a result of these two positions and the debriefing and member check-in sessions with the program directors I also became a sounding board to help them think about program sustainability and how the program fit within the city's educational landscape.

within these urban contexts. I had no qualms traveling to and from the program on Friday evenings and Saturday mornings. I often moved on foot; using the same wits I would in moving through my home communities (Cambridge and Boston, MA) and Champaign, IL. I enjoyed my walk to and from the site on Saturday mornings; headphones on, with Gladys Knight, the Wiz, or Jill Scott providing the musical backdrop for my journey. As I walked, people and landscapes changed as I moved further west – from my apartment in Melvin into Pendergrass proper. As the city streets became more strongly concentrated with African-Americans, on foot and as proprietors, the only thing that made me feel like I stood out was my backpack. What 30-something adult carries a backpack? Otherwise, as a 6 foot tall African-American woman I visually made sense in AISE's neighborhood. As a black woman within AISE, I believe my identity helped to build connections with parents and kids. It made sense for me to chat with the younger siblings of program students; they often sparked our conversations. As many of the program parents were around my age, I believe children saw me as another parent. I socialized with parents before, during, and after program sessions building rapport around shared humor, stories, and mannerisms that reflected similar insider cultural knowledge. I believe these connections allowed for faster familiarity, helping to place us all at greater ease with each other – as we shared this physical space on Saturday mornings.

Internally, I have reflected upon my positionality in the field for a while; thinking about the different ways I existed at AISE. Along with the roles and personal identity described above, which greatly informed my movement; another central idea was how I embodied the "university" within the space. This project is framed as an instance of a university-community partnership; however my own presence offered another level of university. My university positioning came up from time to time with parents. In one instance a mother wondered out loud whether I was

teaching the children, because when introducing myself I told her I was a graduate student from a university. I had to make clear that I was not at AISE in the same capacity as the university volunteers who taught. This conversation was repeated with program parents, kids, and staff on different occasions. I do not represent the local university featured in this university-community partnership. I also do not reflect the university often featured in the university-community partnership literature. I am neither a faculty member conducting a project with or on a space and people, nor am I an undergraduate – having my college experience broadened by a service learning project that takes me into the *real world*. I am a graduate student who conducted research that allowed me to better understand how a university-community partnership took shape and operated within an inner-city context. Ultimately I do represent a university presence at AISE, but not *that university* – making me some sort of cousin-once removed? In this sense, how I fit in the space and if/how I should be included in the write up has been a running concern. I am the odd cousin in the family photo, related, but not really. In many respects, Norma Mendoza-Denton's reflection in chapter 2 ("Beginning Fieldwork") of *Homegirls: Language and Cultural Practices Amongst Latina Youth Gangs* on the concept "halfie" has helped me frame my own positionality. A "halfie" Mendoza-Denton argues is a bicultural or transnational identity, in this instance, held by the ethnographer or their participants. Mendoza-Denton wrestled with the concept as she tried to nail down the nuanced nature of the splintered identities held by herself and her participants. Within this project, in terms of my university status, I see myself as a "halfie". I am an instance of the university within this space, but not the one that comes to mind for any program participants because I do not represent the local university where the volunteers come from. However, I am a university student engaged in research. I thought I could quietly reflect upon my "university status" at AISE and how it sits within the context of the

university-community partnership examined in this project. However, a thoughtful peer in a methods course disrupted my internal struggling by naming me as part of the "university side" of the university-community partnership featured in this dissertation. I thought to myself "oh, others see it too. Well then I really need to figure this out". I have determined that I would write myself and my "once-removed university" status within this university-community partnership into this project. I am a university member who also negotiated distinctive spaces to enter this site. I provide a thin layer of university-community partnership at work in this space.

Data Collection

My research involvement at AISE began in 2010, as the program appeared in the conclusion of my master's thesis. This research process took the form of examining program materials and artifacts available online through AISE's website as well as informally interviewing a founding program volunteer, Natasha Rodgers, to gain further insights on the program. I entered the field on four separate occasions. The first three trips were more substantive, with the last trip occurring because I was in town for a conference. I completed my first research trip in spring 2011, during the week of my spring break. It was at that time that I started collecting data from founding program members (i.e. staff members and volunteer instructors) regarding AISE's inception and weekly operations. During this trip I completed five interviews and three fieldnotes, 2 of which were participant observations at AISE. At this time, I interviewed 3 female volunteers, the program's founding director (James Gentry), and the parent liaison (Sister Amina). The first observation took place during the program's Friday night set-up session. During this session program staff review the students' folders (reviewing student progress) and arrange the classrooms for the following day's Saturday program. I attended this session with Natasha Rodgers, who regularly volunteered to set up the program during Friday

night set-up sessions. The second observation took place at AISE during its weekly Saturday program. I was present at AISE from 9-12pm. My observation included the program's opening and closing sessions with the entire program and the 5th grade class session. I was granted access to this class by the volunteer instructor, Natalie Rion. At this time there was no great rhyme or reason to my classroom selection. It was my first time at the program and I was interested in seeing a *classroom in action*. By this, I wanted to see how the learning process unfolded in a typical class session. How the hands-on curriculum was presented and what student-teacher interactions looked like.

I completed a subsequent trip in spring 2012, (also during my spring break), with the specific intent of collecting data from program parents and volunteer instructors. My intent was still to gain foundational understanding of the program; however during this trip I wanted to gain that information from program parents and male volunteers in particular. While analyzing the 2011 data I realized that male voices were greatly lacking in my data, though they were present in the space, as parents and volunteers. During this week-long trip I completed 11 interviews and two fieldnotes, with 1 being an observation at the site. I interviewed 5 graduate student volunteers (4 of whom were male), the program directors, and 5 program parents (4 mothers and 1 father). During both trips I also collected program artifacts (i.e. curriculum and advertisement materials). In Mr. Gentry's efforts to open up the program to me, he allowed me to introduce myself and my research intent during the opening sessions on Saturday morning during both my 2011 and 2012 trips. I introduced myself to the entire program. (i.e. kids, parents, staff, and volunteers). And it was through these introductions, small talk with individual program participants, and a letter sent out to program parents (unbeknownst to me) by Mr. Gentry prior to second trip asking for their participation, that I obtained my interviewees.

As my participant pool was open to the entire program I gladly spoke with anyone willing to be interviewed. For the purposes of this study all information and perspectives were welcomed, as they would give me a fuller sense of the program, how it operated, and existed within this local urban context. Ultimately, having the opportunity to access my site on these two occasions, while completing my coursework, was invaluable. It allowed me to ask richer questions of myself, my methodological discourse, and theoretical frameworks – as my outlook overtime has been challenged, refined, and challenged again. In the Appendix, Document 1 notes the interviewed participants and provides brief background information per interviewee. Document 2 lists the Interview Guide for each type of interviewee: program parent, graduate student volunteer, and program staff.

During the 2013-2014 academic school year, I undertook a third research trip – the longest thus far at 7 months. My intent for this research trip was to witness the program in a full school-year cycle. Again, the program runs from early-October through May. The program's curriculum is broken up into three modules: the fall unit centers on earth science, the winter unit on physical science, and the spring unit focuses on the biological sciences. In the fall, I completed participant observations in the 2nd grade classroom, in the winter I completed observations in the 3rd grade, and in the spring I conducted observations in the 5th grade classroom. The classroom observations centered on *interactions* and the *curriculum*. I was interested in observing student to student interactions, student to volunteer interactions, and volunteer to volunteer interactions. During the fall module the 2nd grade averaged 8 students and had 2 or 3 volunteers per session. The 3rd grade during the winter unit averaged 6 students and had 2 volunteers each week. The 5th grade averaged 8 students during each spring session, and 2 volunteers per session. In terms of the curriculum, I was interested in seeing how the hands-on

learning, through the experimentations, was enacted. How did it unfold within a given lesson, and how did staff build upon the lessons week to week to introduce a particular concept? What human and material resources were utilized to enact the curriculum? While in the field, data was generated through standard interpretive methods: participant observations, interviews, and collected program artifacts. Outside of the artifacts, all data was organized through fieldnotes, journal entries, and interview transcripts.

Participant observations took place in various events, related to program operations; however, the primary location was at AISE on Saturday mornings. During the Saturday sessions I specifically observed morning set-up proceedings[50], the opening and closing large group meetings, and class sessions. Each Saturday, my participant observations, were roughly 4 hours. I completed 19 Saturday session observations throughout the school year. Overall, participant observations took place at AISE during Friday night set-up (roughly 2 hour sessions – which are described above), Saturday mornings, during weekly and monthly planning meetings with the program directors, AISE community events, and program orientation sessions for parents and volunteer staff. Each week I spent approximately 6-8 hours at the site.

I conducted both scheduled and unscheduled interviews with program participants. I completed a series of scheduled interviews with the program directors that followed program milestones (e.g. the opening of the school year, close of each academic unit, and the close of the school year). I also completed unscheduled interviews with all other program participants. The latter interviews took place throughout the school year. I interviewed volunteer instructors, parents, and students to gain their perspectives on program participation, AISE's contribution to

[50] Morning set-up proceedings consisted of parents and/or staff putting out the student and staff sign-in sheets, setting-out the name-tags for staff and students, prepping the snacks, and checking-in with program volunteers to make sure they have all of the necessary materials for their given lesson. This process begins at 9am and runs into 9:30 when the opening session begins.

student learning, and its positionality in the larger city. As my participant pool was open to the entire program, all participants were eligible, and welcomed, to be interviewed. As with my first two research trips I interviewed participants at locations convenient to their schedules. This meant I interviewed participants at AISE (interviewing parents, kids, and staff) and at different venues on the university campus that housed the graduate student volunteer (interviewing staff and volunteers). During this trip I completed 22 interviews.

I interviewed program volunteers during each of the three modules. As a fellow graduate student present at multiple weekly AISE events I was able to build rapport with most of the graduate students more quickly. The idea of conducting research was not new to them, as most of them were (or would soon be) conducting research in a principal investigators' lab. Therefore, many of them were interested in learning more about my research process, where such conversations became a nice starting point to get to know each other. With program parents, I took the fall module to introduce myself before approaching them about interviews. I began interviewing program parents during the winter module and I interviewed program kids during the spring module. I wanted the kids to have as much time as possible to get to know me before I approached them (and their parents) about sitting for an interview. In the Appendix, Document 3 charts the interviewed participants during the 3rd trip. The chart includes background information for each participant as well as indicating when each interview took place. Document 4 lists the Interview Guide used for each type of interviewee: program parent, graduate student volunteer, program staff, and program kids. The 3rd research trip concluded the bulk of my time in the field.

However, I did return to Philadelphia briefly for a 4th trip the following school year. This trip occurred because I was in town for a conference. At that time, I took the opportunity to not only check-in at the site but also arrange for 5 student interviews. Four of the interviewees were

siblings. One of them had matriculated through the program and the other three were currently participating in AISE. The fifth child I interviewed was in his 4th year at AISE. He began participating in the 2nd grade and was a member of another sibling group who all participated (or were currently participating) in AISE. Demographic information and the interview questions asked to these participants can be found in the Appendix in Document 5. During all 4 trips, the completed interviews were semi-structured, so the interview questions located in the Appendix guided the overall process, but were not exhaustive of the individual conversation's reaches and depth.

The collected artifacts included program curriculum, advertisements, training materials, newsletters, volunteer and parent databases, and social media correspondence. Since the beginning of my research tenure in 2010, I have amassed artifacts that allow me to better understand how the program has evolved over time, specifically in relation to curriculum development, the student population, and resources utilized from city networks to support program operations.

Data Analysis

Data analysis took place through a thematic investigation. The analysis is framed, in part, around my research questions, looking for patterns and themes within my fieldnotes, interview transcripts, journal entries, and artifacts. However, I would be remiss if this process did not include inductive approaches to data analysis – allowing for emergent themes to develop during open-coding (Bernard & Ryan 2010). Therefore, on one level the research questions and theoretical frame act as a guide for the data analysis, but they do not confine its scope. Data analysis took place in a two-part process. It began with open-coding. During this process one is not concerned with privileging any particular codes, but engaging in an exploratory analysis

through the entire data set. Open-coding concludes when no new codes surface in the data (Bogdan & Biklen, 2006; Emerson et al., 2011). In reviewing the extensive open-coding notes and in-process analytic writing (e.g. asides and commentaries) the coding process transforms, for the researcher, from "open" to "closed", as the analytic intent becomes more fine-tuned or selective. During closed coding, particular codes were privileged and the data was examined once again with refined parameters (Bogdan & Biklen, 2006; Emerson et al., 2011). From this analytic work (rereading, labeling, memo writing, and categorizing) assertions begin to take shape and it is the assertions that are the basis for the research findings.

During my 3rd research trip, I started the data analysis in Philadelphia, in part, because insights gained during this preliminary data analysis phase allowed me to refine questions and avenues of inquiry while at the site. This process not only supported my efforts to triangulate the data and engage in member-checking, but it also allowed me to share budding themes, ideas, and questions with program participants. Through member checking, interpretations and conclusions were shared with program participants. Member checking took place both informally and formally. The former, for example, took place while in the field by sharing themes that surfaced following interviews and areas of inquiry the result of observations and examined artifacts. The latter occurred through scheduled debriefing meetings with AISE's leadership and through executive summaries produced after the first two trips that were submitted to the program director for dissemination. Because of the length of time I was in the field for the 3rd trip, I did not produce an executive summary for the director; we debriefed in-person throughout my time in the field. Ultimately, sharing my preliminary analyses supported interrater reliability, as I was able to contextualize the developed themes in collaboration with individuals at AISE. After leaving the field, during both semesters of the 2014-2015 school year, I participated in a weekly

seminar for qualitative researchers completing field-based research projects. This course (which I participated in on three separate occasions) allowed me to connect with a scholarly community, where we could engage in rich dialogue about our data collection and analysis proceedings as well as share our drafted writing.

Since I have been with this project since the beginning of my doctoral studies and I have entered the field on multiple occasions, I have analyzed collected data at different times for various projects such as, course papers, conference presentations, a drafted article and a book chapter. Since the totality of my collected data (all 4 research trips) would be included in this dissertation project I needed to engage in a *data analysis enterprise* that would allow me to see all previously examined data anew – this was a particular necessity for the data collected during my first two trips. Rather than re-reading written transcripts for data I had previously analyzed I listened to them and recorded my analysis in a Data Analysis Worksheet that I created. The Worksheet included space to breakdown my thinking for both established and emergent themes. The established themes were prevailing concepts that had repeatedly surfaced while in the field during the 3rd trip or were major ideas from past works. It was a balancing act, determining what older arguments to include in this current analysis, while leaving room to allow that data to be examined anew. I did not think it made sense to throw out all past interpretations and assertions, as some related to this current project, but it was also important to allow the data to be molded for new argumentations and the research questions guiding this current project.

Listening to the data was an amazing opportunity that ended up being more worthwhile than I initially intended. I found that it helped to take me back to the place a given interviews and experience the moment again with the program participant. Ultimately I saw this form of data analysis, listening to the data, as a "3 dimensional coding process" – where a "2 dimensional

process" would be coding from the written transcript. Hearing the participants speak, the high and lows in their voices, their tone and cadence, and when their sentences or thoughts trailed off was very valuable. I was able to account for more of their personality and at times the intent in their words through this method. This process was central to my overall open-coding process. The process did include re-reading all of my fieldnotes from the first two trips in a two-dimensional format as well as some of the some of the collected data from my 3rd trip. Once new codes emerged, I re-examined all of the data (4 trips) through closed coding parameters. The closed codes, and subsidiary points per code, were as followed:

Table 1

1.**Inner-city Context** - City & School - Program as CURE, BAND-AID, PROBLEM - Motivators/Baggage - What's Created?	2. **Resources: Negotiating SPACE, PLACE & CAPITAL** (What's brought to the table) - resources crossing borders - university side - community side - public schools - missing resources at AISE
3. The Kids: Making an Impact & Blockades -Young Kids - children Lost and Found populations -Older Kids - graduate students AISE as a hybrid: Community Initiative & Service Learning 2.0 - Staff as simultaneous Educators & Students	4.**So What Is It?: Bridges, Communities, Obstacles** - Deconstruct complex communities entering AISE - Actors making Bridges between separate Communities -What is AISE? What does it mean to be a partnership / community of communities / coalition building?

The closed coding occurred through a 2-dimensional coding process. At this time I coded all of the Data Analysis Worksheets and the remaining written transcripts, fieldnotes, and artifacts from the 3rd and 4th trips (this was the bulk of the data from these last two trips). The central

reason I switched back to 2-dimensional coding (using written transcripts) was so participants from the third trip could have a copy of their individual transcripts, if they desired one. Though the initial intent was to produce a data analysis format that would help me analyze previously examined data with fresh eyes, I did not expect the 3-dimensional coding to be such a valuable process. The data came alive in ways that I did not imagine. I was brought back to the place of many of these interviews through my participants' voices. Older data was reinvigorated in very exciting ways, as the conversations and ideas participants raised were as central to my current argumentation and project as any data collected during my latter trips. In the Appendix, I have included the Data Analysis Worksheet (Document 6) and a sample completed Worksheet so the reader can get a sense of what the written component of the 3-dimensional coding process entailed.

Maintaining Trustworthiness & Validity

Though my perspective was the primary vehicle driving the data analysis process it was not the only outlook present. Site participants and scholars from the above method course have played a formidable role in helping me to unpack the collected data. A central component to this process was reflecting upon and establishing "trustworthiness" – in the design, data collection, and specifically the data analysis process. In terms of naturalistic research, which qualitative research is one instance, the concept is examined at great length by methodologists Yvonna S. Lincoln and Egon G. Guba (1985). They frame the concept around 6 points, that I will move through below. The terms are italicized. In this study I have incorporated all but one of their approaches.[51] From Lincoln and Guba's framework, I completed *prolonged engagement* and

[51] I did not engage in "Referential Adequacy". Lincoln and Guba state that it occurs when a researcher earmarks a segment of data, that is not used in their data analysis, to act as a comparative baseline for their findings. The earmarked data can then be used by separate researchers to illustrate the reliability and validity of the primary

persistent observation through my multiple research trips and weekly presence during AISE's programming. Consistent, meaningful, participation allowed me to better understand AISE's cultural context and build trust with program participants. As my research began to take shape around broad ideas and themes, I *triangulated* the data through divergent sources (i.e. various program participants and artifacts) and methods (i.e. interviews and observations). Once I left Philadelphia I participated in *peer debriefing* sessions with both colleagues and university faculty through advanced method courses designed to immerse students in their data through an intimate workshop-style course. I also received valuable feedback from peers in my writing group. The method courses, in particular, allowed me to refine research questions, clarify assertions, and receive invaluable feedback on the methodological process in-between research trips; thus, allowing me to also engage in *negative case analysis*.

In producing this document, specifically the findings and concluding chapter, I turned to Roger Sanjek's (1990) analysis to maintain validity. In "On Maintaining Ethnographic Validity," Sanjek asserts that in enhancing internal measures for legitimation and strengthening the qualitative approach, all ethnographer should ask themselves and their work the central question: "does it [the write-up] say what I claim it does?" (Sanjek, 1990, p. 395). Maintaining this continuity, Sanjek argues can be assessed through what he refers to as, three canons: theoretical candor, the ethnographer's path, and fieldnote evidence. Theoretical candor is achieved through the use of both "significant theories" (macro theories) and "terrain specific theories" about people, events, and places (Sanjek, 1990, p. 396), where the latter can be used to further contextualize or revise the former. Sanjek argues that scholars' movement through micro and

researcher's conclusions. However, Lincoln and Guba indicate that this approach has its flaws, specifically the issue in establishing an agreed upon sample of "representative" data to archive and the potential ramifications for the researcher in losing the archived data. They argue that some scholars do not see the payoff as worthwhile.

macro theories in their writing must be made explicit to the reader. Scholars should indicate, for their audiences, how their research is grounded in particular theoretical frames and how those frames evolved overtime through their prolonged engagement in the site.[52] Sanjek's second canon asks scholars to make their "ethnographic path" within the site more visible for their readership. How did they get from point A to point B? What role did which informants play in that process? Was the road traversed in the field a smooth or rocky one? Sanjek argues that providing a map is a nice measuring stick to gauge ethnographic validity. In other words, scholars should make their movement in the field (which is well documented in the private sphere of their fieldnotes) and include it in the public text of their formal writing. Lastly, he argues for increased connections between fieldnotes, as evidence, and the ethnography, as assertions and findings. What is the evidence that one's investigative journey was based upon? Sanjek argues that the literal amount of fieldnotes that appear in one's write-up can vary, but what must be made clear is the evidentiary nature of the fieldnotes to the telling of the ethnography. In the production of this document I looked to maintain these ideas by being transparent in both my movement through the field, translating my development from fieldnotes to findings, and the connections made to larger scholarly literatures and theories.

[52] Sanjek provides a nice comprehensive framework to situate the place of theory in ethnographic research. He states – "'Where theory?' In the field and out of the field. 'When theory?' Significant theories while planning fieldwork, and theories of significance as it takes shape and direction. 'Why theory?' To give ethnography meaning and purpose and to avoid opportunistic study of 'everything'. 'Which theory?' Consult your political and critical values". Roger Sanjek, "On Ethnographic Validity," in Fieldnotes: The Makings of Anthropology, ed. Roger Sanjek. (New York: Cornell University, 1990), 398. CI580 Dyson Course Reader, University of Illinois, Spring Semester 2011 (516).

CHAPTER 5: SO, WHAT IS IT?: A CURE, A BAND-AID, OR PART OF THE PROBLEM. UNPACKING A SITUATED COMMUNITY PROGRAM

After the last classroom session concluded and we were beginning to wrap up for the day, Patricia told Stephanie about my research.[53] *Patricia definitely seemed fascinated. This led to Stephanie asking me questions about my project. I told her about my work. She seemed more questioning, than simply wanting to hear about the project. She was not neutrally taking in my words, as was the case with Patricia. When I spoke with Patricia, I read her facial expressions and body language as "that's so good" or "that sounds helpful". Stephanie formally worked in the Frankfield University College of Education so I think she comes to the field with her own notions, whatever they may be. In a bit of a questioning tone (regarding impact) she asked about the number of kids served, what part of Frankfield was involved (she assumed the College of Education), curriculum, and ages of kids. I told her about the rotating staff, location, who was a part of the collaboration, that the lessons coincided with the city curriculum, the grade-levels the program supported, that the program focused on hands-on learning, that it ran the majority of the school year, and how the program's older kids and graduates participated in the citywide science fair. She listened but seemed suspect. I was not sure of the basis. Maybe it was because it's a community program, the size of the student-body served, or because it's not affiliated with the College of Education – I was not sure. When she asked about the kids served. I told her about 35 per week. She asked if that was per grade. I said no, it was the entire program. She then responded that the size was nice for intimate learning, but as she walked away she commented that it's serving so few kids. And then said something to the effect of, but in the big picture because so many district kids are in need what is the real impact? Again, scale. AISE cannot stand in the place of students' formal education. However, just because it's not replacing entire science programs does not me it should be demeaned for being small. There is still much to learn – who is partnering. How are they coming together? What are these kids walking away with as skills? What type of pipeline is created? How has it become a family affair? There is much there and much to learn. It cannot save kids science educations. PPAC cannot save kids literacy needs or even library services for all kids in the school or Pendergrass, but that doesn't mean that you don't create a program. I felt that she was a bit dismissive. I am not 100% sure why, but she seemed to go negative. Patricia stayed positive.*

Field Journal Entry
January 9, 2014
Volunteering with PPAC[54]
Newton Elementary School (PPAC-sponsored school library)

Educational reform, policies, and programming, in many inner-city contexts, are constructed in response to major educational needs. Depending upon their scale, these initiatives can center upon one aspect of students' learning or extend upward intent on overhauling entire

[53] Patricia and Stephanie were volunteer staff with the Pendergrass Partnership Alliance for Children (PPAC) when I began volunteering. They were older white women in their 60s. Both previously resided in Pendergrass. Patricia had lived in the city since the 1970s. Stephanie moved to the suburbs in the 1980s when the drug epidemic hit areas of the city hard.

[54] I volunteered with PPAC during my entire 3rd research trip in Philadelphia. At the time I was in Philly, PPAC was a non-profit that primarily focused on increasing traditional public school elementary students' literacy access by (re)opening school libraries. The non-profit, which focused primarily on grades K-3, furnished, stocked, and staffed 13 school libraries. While I was there, I volunteered at two elementary schools – Newton and Blankenburg. All of these schools would be without libraries (books, technology, programming, and volunteer libraries) if it were not for this non-profit. Some of these libraries had been closed since the 1960s, commonly for insufficient school funds.

schools. In terms of community programming, how collectives choose to engage within such a context can come up for debate. This was often the case when I shared by research project with local residents in Philadelphia (as presented in the above vignette). Within this local context, I also witnessed these debates between PPAC volunteers when discussing PPAC's own programming. Or, when AISE's director reached out to the Frankfield College of Education for feedback on his program and was told that its implementation was inefficient because scientists do not have the pedagogical background to properly work with school children (as teachers do)[55]. Within this project, conditions and viewpoints, internal and external to the site, often came together to inform its shape and participants' understanding of its purpose. In an educational context often understood as broken, external pressures centered on constructing value-additive reform and programming that serves the greatest good makes complete sense. However, in this same context where students' schooling experiences are constantly under siege, local programming initiatives can become castigated along lines of whether they are a part of a cure, act as a band-aid, or are part of the problem.[56] In terms of AISE's programming, a question coming from within and outside of its walls was – *so, what is it*? How did its various collectives understand the product they co-produced? How did they wrestle with external processes and factors coming from the larger city informing implementation, especially as participants carried some of these conditions, as baggage, across the threshold each Saturday morning? I have framed this chapter as an introductory findings chapter. By unpacking these questions I will not

[55] This latter idea was unpacked in a section of my Early Research Project entitled, "Claiming Your Turf: Space and Ownership in Community Dealings".

[56] I am defining these terms in the following way: a *cure* – alleviates a given policy or reform imperative; a *band-aid* – provides a short-term solution to a given problem, but does not respond to the source; and a *part of the problem* – an educational reform, policy or initiative is further exacerbating the current issue.

only introduce a situated site, examining how participants understood their participation, but also illustrate how one community program took shape within this prescriptive schooling contexts.

So, What is It?: Parallel Constructions of Philadelphia's Educational Landscape

From conversations during participant observations to interview questions that asked participants to reflect upon program routines and AISE's impact, discussions frequently converged around views on city schools. A historical sketch, based upon secondary literature, provides one salient backdrop for the context that framed AISE's inception. Participants' own understanding of the educational landscape, however, had much more immediacy in informing AISE's local relevancy, and often their continued participation. Therefore, in unpacking the idea of "So, what is it?" I will illuminate the larger educational context in two parts that I call ground and birds-eye views. Secondary sources provide a useful meta-view of the educational landscape within which AISE was created. However, the governing structures, financial constraints, protests, AYP scores, and school closures exemplar in this construction were absent from my participants' narratives. They constructed their sense of knowing from their lived experiences as well as how they imagined local educational spaces. I will begin this contextual sketch with the *birds-eye* view only because it provides a broad, overarching perspective. Beginning here allows me to organically funnel downward to participants' *ground* views. Moving in this manner helps me to go beyond more general framings of the city's schools to specific perspectives on the science education it offered its young people. The latter being of central import within this examination, as access to a dynamic science education was AISE's primary focus and local educational intervention. Once in the *ground* view I will utilize a second funnel, moving from participant perspectives that were more removed from local schooling experiences to those of

individuals who sat in city classrooms, on the receiving end of the Philadelphia education system.

Contextual Sketch: Birds-Eye View

In outlining Philadelphia's more recent schooling context, I will provide a sense of the formal educational landscape in which AISE was conceived. The framing will center on the city's public school district, the school system that the overwhelming majority of AISE's student participated in.

In 2001, in response to chronically low standardized test scores and perpetual debt (216.7 million dollars), the Philadelphia School District was overhauled by former governor Tom Corbett and placed under the management of the School Reform Commission (SRC). The SRC was a governing body comprised of three state-appointed and two mayoral-appointed members. Under the leadership of the SRC a preponderance of educational and market-driven schemes were introduced into the school system. In 2008, 40% of the city's public schools operated under privatized management; the result of their inability to meet federal and state educational standards (Adams, Bartelt, Elesh, & Goldstein, 2008). A major charter management operator (CMO) who entered the school district at this time was Edison Schools, Inc., the brainchild of conservative reformist H. Christopher Whittle. Whittle initially proposed (to the school district's delight) to manage the entire district; however, after a series of community protests and public relations gaffes by Edison they ended up managing 20 schools (Staples, 2002). Yet, in the aftermath of poor performance and great financial strain on the city, Edison lost their place in the school system; only to be replaced by another outsourcing experiment in the Renaissance Schools Initiative (Gym, 2009). In 2009, only 6 of the city's 267 public schools met Adequate

Yearly Progress (AYP) benchmarks established under No Child Left Behind (Accountability, 2009, p. 8)

The charter school movement, which became a prominent public school alternative in the early 2000s, brought another imposing layer to the city's school system. In Philadelphia's charter movement history, the school district has had little regulatory control over its governance. The city has also experienced one of the more recent iterations of the movement – cyber charter schools.[57] Philadelphia parents participating in cyber-schools perceive it to be a legitimate alternative to the city's traditional public schools. However, the latest reported study indicated that 100% of the cyber network's students are performing at a lower level on state standardized tests than traditional public school students (Roebuck, 2013). As the district has operated in financial turmoil for decades, the 2010-2011 academic school year saw approximately 1,200 teaching positions eliminated because of budgetary constraints. In 2011, the state's educational budget was cut by 1.1 billion dollars. A reality that devastated Philadelphia's public schools, as nearly 45% of its funding came from the state (Griffith & Millard, 2015). As a result of the budget cut, the Philadelphia School District experienced the largest per pupil expenditure cut in the state, at $1,351 per student.

On April 24, 2012, news circulated regarding the level of distress that both the city and its public schools were under, as the SRC proposed to dissolve the public school system. The

[57] At this time (2013) the charter movement was thriving in the school district. 61,740 students were enrolled in city charter schools. Charter school educated approximately 30% of district school children. As the state requires charters to receive approximately equivalent funds, per child, to what a traditional public school received the year before, the city experienced great financial woes in response to the expansive charter movement. The district estimates that they lose $7000 per year, for each child who attend a charter school. However, the traditional public school district did win a major appellate court decision with the Pennsylvania Supreme Court in August 2017 (Loeb, 2017a). Stating that charter operatives could not operate outside of "operating agreements to add more students, schools or other functions that are not specifically listed in a contract" (Esack, 2017, p. 1). The major point of contention regarded the enforcement of enrollment caps. The particular school named in the case was Discovery Charter School that received approval from two lower courts to abandon its contract and increase enrollment from the contracted 620 to over 1000 (Loeb, 2017a).

reported rationale for dissolution was an inability to financially support operations (Denvir, 2012). The initial plan was to close 65 of the city's public schools by 2017. The remaining schools would operate in clusters of 25 schools, referred to as "achievement networks". These "networks" would be managed by public or private entities that would compete to become educational management operators (EMOs) (McClung, 2013). During this time, the district's website described the city's public school system as reaching a "crisis level". At the conclusion of the 2012-2013 school year, 24 schools had closed and approximately 3,800 teachers and staff were laid off (Gabriel, 2013b).[58] A major result of the school closures had been the loss of local institutions and educational displacement experienced by students, their families, and educators. In 2013, operating under the broad strokes outlined by Chief Recovery Officer Thomas Knudsen in "Blueprint for Transforming Philadelphia's Public Schools" and the more detailed proposals of Chief Academic Officer Penny Nixon, 30 public schools were closed. (Jack & Sludden, 2013). In the close of their article, "The Philadelphia School District's Ongoing Financial Crisis" economists John Caskey and Mark Kuperberg captured this moment in Philadelphia's educational history when stating,

> Despite a vibrant downtown, Philadelphia is a much poorer city than many people realize. With one-quarter of its residents living below the poverty level, Philadelphia is the ninth-poorest U.S. city with a population over 250,000. Relative to Pittsburgh and the Philadelphia suburbs, the school district is significantly underfunded by the state and its city government, especially when one adjusts for the comparatively large percentages of special education, English language learners, and low-income students. In short, the district faces huge challenges with limited resources. In addition to this fundamental fiscal weakness, the district is undermined by its governance structure. With no independent taxing authority, every year the district administration must plead for funding from the state and city (p. 27).

This more dire educational culture was faced head-on with the election of Governor Tom Wolf in 2014. Under Wolf's leadership the state has seen a renewed interest in establishing

[58] The 2013 laid off staff included: all 127 assistant principals; 676 teachers; all 283 counselors; 1,202 aides; 307 secretaries; and 769 supportive service assistants.

more equitable school financing. Following a 9 month gridlock the 2015-2016 state budget included a Fair Funding Formula for the state's schools. Prior to the passing of the 2015-2016 budget, Pennsylvania was one of three U.S. states without a Fair Funding Formula (Wolf, 2016). Though only 6% of state funding was distributed through the new formula, its presence was a step in the right direction. It signified the state's acknowledgment of the financial distress and inequitable funding experienced by Pennsylvania counties and school districts.

The last two academic school years have seen a more drastic shift within the city's school district. News outlets indicated in the 2016-2017 academic school year, that the district had recovered from the 2012 budgetary crisis and was beginning to reinvest in the school system's maintenance (i.e. personnel and infrastructure) (Engagement, 2016). November 2017 brought a drastic call for a changing of the guard, with the city's mayor Jim Kenney, calling for the dissolution of the SRC. Media outlets portrayed common perceptions of the 16 year relationship between the SRC and the district's schools and families as a "failed marriage" (Loeb, 2017b). However, Mayor Kenney's call came on the heels of a projected billion dollar district deficit in the coming years (most directly the result of charter payments, pensions, salaries, and debt services) (Graham & Spinelli, 2018). With the potential bleakness of the district's financial future, Kenney still argued for the value of returning the Philadelphia School District back to local control, stating:

> We must choose to meet this moment and become the masters of our own destiny. If we pair local control with increased investments, we can finally confront our city's most persistent challenge. We can create a school district that is more collaborative, more financially stable, more accountable to Philadelphians, and as a result, a school district where our students progress and are accelerated (Loeb, 2017b).

June 12, 2018, the SRC followed the mayor's proposal and voted to abolish itself. The SRC's reign ended on June 30, 2018. With the 2018-2019 school year, the mayor will have the ability to appoint the new 9 person board, which he stated would be constructed with the assistance of

the city council (Loeb, 2017b). The upcoming school year will see the city of Philadelphia operating under local control for the first time since 2001. It will be a new day in terms of governance, but the district will continue to operate under the weight of many of the same historical challenges (i.e. impending financial woes, school infrastructure in need of rehabilitation, a robust charter school movement, high rates of personnel turnover, and poor student attrition rates).

As an institution, a school district is an artery within the larger network of a city; its issues and needs do not exist in a vacuum. Much of the financial turmoil that the Philadelphia School District contends with is also found in other public institutions. Although the school system is faltering; the city itself is not. For example, a thriving vessel within the city is its economic sector. Philadelphia is a global hub and the centerpiece of the Philadelphia-Camden-Wilmington metropolitan area. The city is home to the Philadelphia Stock Exchange, several Fortune 500 companies, premiere universities and hospitals. As a metro area it has the 8th highest gross domestic product (GDP), by metropolitan area in the nation ($431,038 billion) (Rodriguez & Panek, 2016). However, the public school system's once proposed disillusion, chronic debt, and ill-resourced schools illustrate the major disconnect present between the financial resources coming into the city, mainly as private capital managed by entities in both the private and public sectors, and the city's public institutions. The economic stability found in the private sector make clear that the city as a whole is not broken, but for those whose lives are more disconnected from these revenue streams, Philadelphia might as well be. Those who did not or could not leave the city in decades past when the twin-push of deindustrialization and suburbanization reached their apex are the same local residents more stringently attached to the city's public sector services – in this instance a failing public school system.

This is the educational milieu that met the collectives who came together in 2008 to create AISE. It's the formal learning environment that molded the overwhelmingly majority of AISE's children. My interviews and participant observations illustrated that individuals had varying degrees of knowledge and interaction with the city's formal school system. Yet, consensus reigned that the schools were struggling and children were not getting a complete education. With this context as the ever looming backdrop, collectives from across Philadelphia's fragmented landscape set out to create a place that expanded learning opportunities for youth. Ultimately, they illustrated more of the available resources within the city to mobilize around for educational change.

Contextual Sketch: View from the Ground

AISE's program participants were not lacking in opinions regarding the city's schools, specifically the quality of the education they felt it provided students. Though study participants – parents, staff, volunteers, and kids – had varying levels of contact with a traditional classroom that did not dissuade anyone from constructing an opinion. Since AISE was a science-based program, participants' perspectives often settled on the type of science (or STEM) education afforded in city schools. How participants constructed the city's educational terrain, often informed how they framed AISE's intervention in the lives of participating program youth.

Views of the Classroom: Volunteers

The volunteers who taught for AISE on a weekly basis were often the program's most disconnected collective from the city's formal schooling experiences. The large majority of the volunteers attended Frankfield, which was commonly viewed in this subset of the city as worlds apart from the lived experiences of local residents who lived beyond its insulated bubble.

Volunteers moved through strong sociocultural divides in the landscape (i.e. regarding race, education, and economic development) to participate in this inner-city program. Volunteers who lived within 5 to 6 blocks of AISE described a drastic change in the built environment that let them know they had exited and entered a new terrain in the city. From interviews, I learned that a smaller minority of volunteers did interact with local kids through science-based mentoring programs (i.e. iPraxis and BioEYES). These programs did operate in conjunction with specific Philadelphia public schools. Regardless of their personal interaction with city kids and schools (outside of AISE) all interviewed volunteers expressed opinions, and often concerns, about the school district. All of my semi-structured interviews included the following question, but where volunteers took their responses often extended beyond their lived experiences and into the imaginary – as they constructed experiences beyond their own.

> **Shana**: How do you imagine the program's place in the students' lives, in terms of personal and educational development?
>
> **Samantha**: So, I think the intent is to get young kids interested in science, especially kids that might not have a good exposure in their schools. I don't know what their school is like, but
>
> **Shana**: Okay (interjects)
>
> **Samantha**: to get them passionate about it. So that is why we do a lot of experiments.
>
> [2.5 minute break in transcript content]
>
> **Samantha**: I think that the program would add a lot to their current curriculum. Again, I do not know how good their school is,
>
> **Shana**: Yeah (interjects)
>
> **Samantha**: but I am guessing that it adds a ton to what they already have. So, in that way hopefully we get them interested in science or at least a little bit more focused in school in general. And for them to see how its [science] important or seeing how it can be fun.
>
> **Shana**: Yes
>
> **Samantha**: Because I am guessing they don't do experiments in elementary school.

At the time of this interview Samantha was a first-year volunteer. Though quick to position some of her statements in disclaimers such as, “I don’t know what their schools are like”, that did not stop her from speculating about the role that AISE played in their formal learning. Samantha, like all of us, was not an empty vessel void of experiences and baggage that shaped her outlook. From our conversations I learned that she previously operated a non-profit tutoring service for high school students in the Seattle-area and her boyfriend, at the time of this interview, was an external financial officer for the school district. Having met her boyfriend at a party, I can only surmise that he continued to share his spirited opinions about the district’s financial management and the origins of its chronic debt with his girlfriend. With very broad cursory knowledge of the nation’s educational landscape (via her non-profit background) and knowledge potentially gleaned from her boyfriend I sat with a young woman who felt confident concluding that AISE’s programming “add[ed] a ton to what they [the kids] already have” without having ever stepped foot into a city classroom.

Amongst program volunteers, negative views of the city’s schools were basically a given. Carla, a long-time volunteer with the program, who became its educational coordinator, framed the district’s ineptness through imagined ideas regarding extremely large class sizes and incongruous student to teacher ratios as well as harmful familial experiences with national standardized testing.

> **Shana**: What impact would you say that they, or volunteering in the program, has had in your life?
>
> **Carla**: Oh, it’s helped me a lot! It’s given me perspective, to talk to the kids. To, to see how smart they are. Everyone talks about how the school system is terrible and how these kid aren’t learning anything. But if you spend, just a little bit of time, you see them.
>
> **Shana**: Yeah
>
> **Carla**: And for me personally, I needed that outlet, away from lab.

Shana: I think that it is nice that you can see the students and see the public school system in a different way. To see that the kids do have strengths. They do come equipped with abilities.

Carla: Yeah and they are curious. Some of them are VERY Smart. *VERY SMART*. You have to get their attention; just catch it for a second (snaps finger).

Shana: Yeah. Sounds good. Sounds very good. I am glad that you're able to have those opportunities. Because I think it's very easy to generalize or just sum up that these schools are like this, or these kids operate in this way.

Carla: Yeah, and I mean – I also think it's really nice because we have such small groups. We have like 3 volunteers or 2 volunteers for 5 or 6 kids. So you really have an opportunity to sit there and just talk to them, and ask them 'what is it that you don't understand. Let's try to do this.' As opposed to a classroom where you have *35 or 40 kids* for one poor teacher. I don't know how they do it. I have a new found respect for teachers…

Shana: (interjects) Yeah (I laugh)

Carla: …in elementary school. It's insane trying to sit down and get these kids to listen for a minute.

Shana: I think that the co-teaching format and the student to teacher ratio is something that's nice. You can have that hands-on. You can have that individualized attention.

Carla: I think that helps, especially with some of the grades.

Carla also made clear that she never entered a Philadelphia classroom, but she constantly imagined the space as chaotic and potentially dysfunctional because of a presumed student to teacher ratio. She frequently constructed the space as having "40 kids and 1 poor teacher". As Carla indicated, within her world, it was agreed upon knowledge that the school district was bad. Who this opinion was shared amongst – her fellow university peers, family, and/or friends – was unclear. However, as she was not local to the city, and therefore the inner-city community that housed AISE, the opinion was shared with outsiders. I would surmise that they have questionable historical knowledge of the space. Our nation's push for standardized testing, which she encountered through a close family member, further warped her view of city, and ultimately national classrooms.

Carla: I think something that is really nice is that this is a program where they're not going to be tested. And learning without having to worry about being dumb or feeling like a failure afterwards because you didn't get something, or didn't quite grasp it. I think it's nice. You're

learning for fun. You're learning because you can and that's not something you do at school. At school you're learning because you have to learn how to take the test. Learn how to do standardized testing.

Shana: Okay.

Carla: You have to learn to make sure you can pass the test, and they really emphasize that kind of thing – and I think it's really stressful for the kids.

Shana: Yeah, I think so too. One of my teachers, her daughter is in second grade? Or first grade – no second grade – and they have a whole class period to teach them how to take the test.

Carla: Yes.

Shana: So they are learning how to circle

Carla: (interjects) How to fill in little bubbles! Yes.

Shana: I was shocked when she told me. I thought 'A whole class period?'. And she said 'yeah' I think in 3rd grade (said questioning), in Illinois, they start to take standardized tests.

Carla: My niece, I have several nieces and nephews – one of them is now in 4th grade and she gets really stressed out. She's like 'the standardized tests are coming'. And you can see it because she gets really anxious. She does not want to do bad because she has to represent the school. And if she does poorly the school will get a bad grade and it will not be an A school, it will be a B school. And she doesn't want that to happen. I think it's a lot of pressure to put on kids.

Shana: Yeah, I agree. And especially the schools around here – because if you don't meet your adequately yearly progress for 3 years in a row your school could be taken over or shut down.

Carla: Yeah!

Shana: I know there is a lot of added pressure, like, we need to get these numbers up. Because if we don't our school could close.

Carla: That's unfair. That's so stressful. That's too much stress for a child. I don't remember worrying about that at all! And it made school fun. You went to school, learned – yeah, you took a test every now and then but there wasn't that extra pressure of the standardized tests. And the future of your school is in your hands. To think about that while you're doing it. That's a lot.

As composites, Carla and Samantha were representative of opinions shared by AISE's staff. Individuals came to the context because they wanted to support the learning of others. Some like Dawn Henry embraced the idea that Frankfield placed her in a bubble. All of the volunteers felt they had knowledge to contribute, but they were contributing to a city schooling context in need

of repair. A context removed from the educational rigor that set someone up to attend an elite university such as, Frankfield.

From the many interviews conducted over the years for this project, to conversations had when sharing this work, and general discussions regarding the nation's schools – I think such strong personal opinions (even those with less merit) result from the commonplace nature of this institution. Almost every American has experienced a school system. For the few volunteers who were international students (like Carla) they commonly had family members living in the U.S. and experienced the U.S. education system through their relatives. As a result of a *shared* experience in a national institution all seemed able to express opinions that were believed to be sound. I, as study researcher, was not exempt from this idea. When present at AISE and talking with program participants I did root many of my conversational points in my scholarly knowledge of the nation's schools and Philadelphia's specific educational history. However, I also spoke with interviewees from my own educational experiences and at times conversations I had with family members who were teachers and educational administrators. The idea of using personal insights to discuss an institution that was familiar to most (and therefore one we all have a level of "expertise" in) was normal. On one level I get it. Yet, it was striking to see the volunteers' understandings from their personal experiences often morph into the imaginary when talking about Philadelphia's schools. And from that point, there was little hesitation in using this imaginary as sound judgement about the state of Philadelphia's school system.

Views of the Classroom: Staff

During my time at AISE (4 trips), James Gentry and Dawn Henry where the program's two consistent administrators. Parent liaisons, auxiliary support staff, and educational coordinators came and went. In their administrative roles, James and Dawn, came into more

intimate contact with the city's school district. Though neither was a classroom teacher or school personnel member, access to such individuals or well-established relationships with program parents and kids gave them more concrete knowledge to construct their views of the district.

James Gentry's rich and diverse history in the local context was understood and repeatedly echoed by long-time AISE participants. Carla described James as,

> *very* invested. The amount of work that James does is *incredible*!
>
> **Shana**: Yeah, and he has a full-time job and is a youth minister in his church.
>
> **Carla**: Yes, and he goes to their [AISE's students] schools and talks to their teachers. And calls their parents to make sure they're coming on Saturday. It's amazing. He's awesome.

From my own interviews with James I learned that his knowledge of the local educational context was primarily informed by past community programs he created, retired teachers and school administrators, his role as a youth pastor, and his local interfaith work. In my first conversation with James he reflected upon how he saw the educational landscape that met city students and informed AISE's growth over time.

> **James**: When we started out we just had 2nd and 3rd grade.
>
> **Shana**: Okay
>
> **James**: Then people were like 'oh, we need 4th grade.' And I said, 'okay, fine. That's it!' (the last sentence said sarcastically)
>
> **Unison**: (we both laugh)
>
> **Shana**: No more. (said sarcastically)
>
> **James**: And then it was like, speaking with some teachers who are helping us out here – kids don't have a real science teacher until 7th grade. And now they are saying 'you should go to 6th grade.' I don't, I don't think so, but who knows. But they do not have a real, they do not have a science class and science teacher until 7th grade.
>
> **Shana**: So it's, whatever your teacher can do?
>
> **James**: Right
>
> **Shana**: So if she does do science you get science; if she doesn't then you don't?

James: Right. And the best scenario is there is somebody in the school who does science so during your period you go to that room and you'll do some science and come back to that room.

Shana: Right, like an art teacher.

James: Right
Shana: Okay. That's the best scenario?

James: Right

[7.25 minute break in the transcript content]

Shana: But that's cool. So everything is in collaboration with local teachers?

James: No

Shana: Okay (slightly confused tone).

James: (he laughs)

Shana: Like, to check in?

James: I have, I know personally two – I know a *bunch* of teachers – but there are two science teachers, one in particular who helped me while we were getting this stuff started. So I call her every now and then to talk to her, tell her what I am doing, and see what she thinks. See if there are any problems.

Shana: Okay

James: We do, the school district follows the Pennsylvania Standards and they have a certain outline for the year of what they do. And a lot of the materials that we use, we're doing the same thing. We are aligned with what the school district is doing. So we do that for 2nd and 3rd and 4th grade. We want to move away from that for 5th grade

Shana: Okay

James: And probably for 4th grade. Because as an informal afterschool program there is, there *appears* to be more money available if you are not doing the school stuff

Shana: Really, okay.

James: And because, and those who are doing the school stuff are big organized formal programs so the pie goes to – so it's hard for us to get that. So as a small group doing a niche piece, who are only going to work on stuff that is *not* with the school district, so there is a broader range of money available. So we have to make that switch. My thinking is, 2nd and 3rd grade will stick with the school district stuff. And 4th and 5th grade will do stuff that is kind of related, but not, so we can see if we can get some money that way.

The final point illustrated some of the competing priorities that James, as program staff had to contend with to remain afloat. However, his framing for the program was guided by his knowledge of what was taking place in the formal classroom, specifically the district science standards. This knowledge came from local teachers and school administrators. These were friends of James', most of whom he met through their shared attendance at a local black Baptist church. From my conversations with James, these educators not only made themselves available to discuss science curriculum and lead volunteer training sessions, but also took the time to act as sounding-boards for him. James had a lens into the formal classroom through these individuals that shaped not only how he constructed his own program curriculum, but also how he and his staff interacted with the kids that they served.

Dawn did not come to AISE or gain an understanding of happenings in the city's school system through the same avenues as James. As a graduate student during most of her time with the program, she came to learn about the district through program parents – individuals whom she developed strong personal relationships with. Though she did not see herself or her role at AISE as connected to the public school district, she did feel that AISE's potential to support student learning existed on a continuum shaped by students' school types.

> **Dawn**: I guess I don't see myself in relationship to it [the public school system] at all, except using, looking at the curriculum to try to develop something for the kids or thinking about what may be missing in the public school system and supplementing it. I guess that is how I see myself.
>
> **Shana**: Do you see the program supplementing what's taking place in the public schools or responding to shortcomings in the public school?
>
> **Dawn**: It depends on the kids' public school. So if it's like this one kid that comes from a really good school I see AISE supplementing it. So he gets more hands on experience, he learns what we are doing, he gets to work on the science fair, he gets help with that. Whereas the kids that may not have that solid school, AISE is replacing it.
>
> **Shana**: Okay
>
> **Dawn**: They don't get the science so we are giving them as much as they can possible get here.

As Dawn indicated, schooling contexts can varying drastically within the city. AISE's students attended area public, private, and parochial schools. The overwhelming majority of the students attended the Philadelphia public school system, mostly through charter schools.[59] During my time at AISE, the majority of its students attended an Islamic-focused charter school. These students participated in its programming because it provided a hands-on approach to science education; or as one mother put it "access to lab" that they were not afforded in their formal school. Khadijah Azer elaborated upon this idea when reflecting on her two participating son's schooling experiences.

> **Khadijah**: So my children are homeschooled. And sometimes we don't get, we don't have the time to do the hands-on experiments, and things like that. So I look forward to them coming [to AISE] because they get the social, they get the classroom setting, and they get the hands-on from someone else – other than myself.

Khadijah's family participated in the city's cyber charter school network. And in a non-recorded exchange she indicated that AISE provided her children with their entire science education. In the case of the Azer boys, AISE was not supplemental, nor did it respond to any shortcomings in their formal science curriculum. It was their science curriculum. In their case, there was not a potential to be in a schooling environment where the teacher sprinkled in science content around mandated time constraints, bureaucratic educational benchmarks, or their own comfortability with science content. Nor was there a possibility for a designated science teacher to come to their classroom. For these boys, AISE was it. Though this was never James' intent for the program, it was one instance of the continuum that AISE existed upon in the lives of the students it served.

[59] During my three trips to AISE only 3 students attended non-public schools. One student attended an area parochial school. Two students attended private schools. One of the two students, an African-American second grader, commonly loudly about her surprise on first coming to AISE as she had never been in a learning environment where the educators, parents, and students were overwhelming black.

Views of the Classroom: Parents/Teacher-Parents/Students

Wanda Baker, at the time of her first interview, was an African-American woman in her mid-to late 30s. She was an active program parent whose daughter, Jayda, participated in AISE's programming from 2nd to 5th grade. Common amongst all of my interviewed parents, Ms. Baker navigated the city's educational terrain to place her child in the most advantageous learning environments possible. Though Jayda's attendance at a lower-tiered private school was very rare amongst AISE's students, Ms. Baker still framed her choice of private over public in relation to how she viewed the public school system and the opportunities it afforded.

> **Wanda**: It's unfortunate the state of some of the public schools – because you have good ones. You have bad ones. But it's *so*, it's such an imbalance, like, being a parent and trying to find a good academic program or platform for her.
>
> **Shana**: Okay.
>
> **Wanda**: It's such an imbalance to the point where even the private sector is imbalanced. Like when I was growing up it was, 'okay, the public schools aren't good right now, we go private'. But, not anywhere private, but *anywhere private* had an expectation – a platform or expectation. That to me now, trying to raise my daughter and give her the same opportunities it's an imbalance *there.*
>
> **Shana**: Yeah
>
> **Wanda**: So it's just, it's slowly, *to me*, deteriorating. So now it's, it's a sacrifice. So you're going to pay 3,000 for the year to educate your child and give them more opportunities, but it's like, you almost need to be at 6 to 12,000. So it's almost like you have to go to the cream of the crop in that tier. Or it's like, here, I might as well send you to public school. And there are the charter schools, which are very competitive and some of them are excellent schools – excellent programs! But in saying that, they are very hard to get into.
>
> **Shana**: Yes, especially with lotteries.
>
> **Wanda**: They do lotteries, a lot of them do lotteries just to keep it balanced and it's not enough of them. Anything in mass production, it's going to go down. So it's such an imbalance where if the resources were put into these public schools – like, I don't think you should have to, or feel you have to send your kid to a private school in order for them to get a good quality education. And then, it's just on so many levels – we are not just talking about academics. We are talking about safety. We are talking about nurturing. We are talking about, do you know what I am saying?
>
> **Shana**: Yes!
>
> **Wanda**: It's such a challenge to find a place for your kids to go where they can thrive.

Wanda Baker was an inner-city parent from a neighboring community to the one that housed AISE. In her quest to find, what she saw as a suitable school for her child, she discussed potential frustrations parents can experience when navigating the schooling options before them. Ms. Baker reflected upon traditional public schools and charters that could vary greatly in terms of their performance. Exceptional charter schools (i.e. Masterman) that were guarded by admission processes and lottery systems. Private options were available for those who could afford them, but in AISE's inner-city context that was irregular. The only other major school types missing from the educational landscape she presented were parochial schools (that required tuition) and university-assisted schools. However, access to the latter was often policed by catchment zones and lottery systems. In a diverse educational landscape true choice and freedom of movement for parents and kids was often a farce. Though most of AISE's parents were bound to the public school system, in interviews they did discuss exhausting the limited options before them, moving their children between traditional and alternative public school options. The most extreme cases being homeschooling through Philadelphia's cyber charter school system.

As many interviewed parents navigated the local landscape to best educate their children, I continuously came across parents who were also bound to the public school system through their employment. Approximately three quarters of interviewed parents worked in schools as teachers, administrators, and/or support staff members. Their dual role as district parents and school personnel further refined their outlook, and at times assessment of the opportunities available to their children. Mr. Albertson, an African-American man in his mid-40s, introduced a common idea amongst program parents – that AISE was filling a gap in their child's formal school experience. Though parents differed on the gap's formation and magnitude (was AISE

filling an absolute void or reinforcing classroom learning), parents frequently concluded that academic content – specifically exploratory science content – was missing.

Following initial small talk, which included me introducing myself and my research intent, I opened the interview with the following question. Mr. Albertson, who I had not met before the Saturday morning I interviewed him, earnestly shared his opinions.

> **Shana**: How would you describe a typical Saturday session?
>
> **Mr. Albertson**: Uumm, its science. (stated very matter-of-factly)
>
> **Shana**: Yeah. Lots of energy in here.
>
> **Mr. Albertson**: Yes. They cover different areas of science background. There is different stuff that they participate in, like the weather, animals, and stuff like that. Things that you're not going to learn in the public school system.
>
> **Shana**: Okay
>
> **Mr. Albertson**: Most of the public school systems don't have science class. What they call science is more vocabulary and vocational stuff.
>
> **Shana**: So this is more, you'd say hands-on, in terms of what the kids learn - in comparison to the schools?
>
> **Mr. Albertson**: Well, it's just more *science* – as far as the lab and dealing with the activities and the individuals.
>
> **Shana**: Okay. That sounds good.

Mr. Albertson was consistently frank during our 45 minute conversation. Through his child and his position in the school system (he was a member of a school's in-house detention center), he freely commented on what he believed to be academic shortcomings impacting the quality of education available in city schools.

[moments later in the same interview]

> **Shana**: I came [to AISE] last spring and sat in on a class session on gliders which was pretty cool because, in terms of my own education, I was like 'I didn't do any of this kind of stuff in school.' It's nice to see what they're doing and to sit in on the class sessions. So for me, at least, it's a distinction from what my science education looked like in school versus what's happening here.

Mr. Albertson: Well that's because most schools do not have science programs – even some high schools don't have science programs.

Shana: Okay, which is interesting to me as well, in terms of state tests, because science is something that is now being tested for. Because there is this push for STEM and push for the STEM fields.

Mr. Albertson: Well, the science test they are taking in the public school system consists of questions like 'What color is a tree?

Shana: Okay

Mr. Albertson: 'If you plant a tree will it grow in sun or shade?,' stuff like that. That's not really science (slightly laughs). That's more matter and facts.

Shana: Yeah, so not, like, critical thinking and

Mr. Albertson: (interjects) they don't take you out here to see how the tree is planted, making it hands-on.

Shana: Yeah.

[3.5 minute break in transcript content]

Mr. Albertson: Most teachers don't know science, and there use to be a science teacher – that's the sad part. Not no more. Now they have teachers teaching science, math, and gym.

Shana: Okay.

Mr. Albertson: And they really aren't qualified. And this is the curriculum that they have and they do, say 6 weeks of science, but again it's not hands-on science. Its more writing, matter, and vocabulary – stuff like that.

Shana: Okay, more like worksheets?

Mr. Albertson: Yes, and this program [AISE] is hands-on. And they [the students] get to see how a caterpillar turns into a butterfly. And they can understand it.

Shana: Yes. So the fact that they have these cycles and they can see things from beginning to end. They can walk through these processes and experience them. Yeah I completely agree. It makes total sense.

For Mr. Albertson, the gap was the result of a lost subject. It lost its place in the curriculum, he felt, because of inadequate teacher training, overextended teachers, and potentially state testing standards that made science into a mechanical process mastered through memorizable facts. As AYP standards influenced many inner-city schools (2009 only 6 school

met AYP), state and federal standards could strongly influence the presentation of science content. Rather than a content that focused on "facts" and "matter", I asked Mr. Albertson if it was higher order or critical thinking skills that he was looking for in an elementary science education. He clearly replied, "No" and stated that he felt an emphasis on the child was missing. He was after a science education that focused "more on exploring, imagination – because kids have a broad imagination and need an opportunity to expand it". Though Mr. Albertson listed points that could inform the gap's formation as well as its outcome, it was a *teacher-parent* who spoke more critically to the possible systemic structures that would maintain the gap overtime.

Sister Amina who acted as the program's parent liaison prior to my third trip into the field was an exemplary *teacher-parent*. She had 2 sons who participated in AISE, from 2nd to 5th grade, and she was a teacher in a local public school. Many of the program parents who were teachers worked in the same school – the Taealam Academy. Sister Khadijah, another teacher-parent who had 4 children participating at AISE, wondered aloud about the large number of educators with children present at AISE. She stated "a lot of the moms are teachers – *because*, if you're a teacher you seek out learning opportunities for your kids on the weekends? Through some avenue or another, the people you end up having at the program are people who generally found out about it through people who are teachers"[60]. During participant observations and in casual conversations, mothers reflected upon their children's learning through language that exemplified their dual roles. Sister Amina, as a teacher-parent constructed the school system and AISE's relationship to it in a manner that illustrated her strong knowledge of the two academic spaces – and specifically the pressures that can weigh upon traditional classroom offerings.

Shana: How would you describe the program's mission from your perspective?

[60] "Faqirah Abbasi Interview" 2014, excerpt.

Sister Amina: Well, what I think it does for the students from our school is that, I think it gets to enrichment that there might not be either time or resources for in the classrooms.

Shana: Okay

Sister Amina: A lot of stuff upstairs, even though they have to write and they might have to read something it's more the hands-on activity that would go with themes in the typical science elementary school book. However, the reasons why this type of learning is not occurring in schools is maybe because teachers are forced to cover a certain amount of content *or* maybe because the school does not have enough money to buy these kits that cost $500 *a piece*.

Shana: Right, right.

Sister Amina: I think that especially in school because there is so much of a push to promote reading and math, which is understandable, those are the BIG subjects for standardized testing and so the other subjects sometimes get neglected as far as resources being allotted to them. So this is a way for science, you know, to let the kids really *see* what they are learning. To understand the scientific method, this is a really big boost to the scientific method because they have to pay attention. If you just read something in the textbook, you're like "okay I learned that fact". But with the scientific method you have to conduct experiments to get that…

Shana: (interjects) Right.

Sister Amina: …to really, understand. Students are like "Oh, I have to write all this down? We cannot change anything no variables here that are changing except for what I am testing for?" They really do see that more because of their hands-on activities.

Sister Amina, as a current educator, indicated reasons why schools may be unable to accommodate students' needs in the same way as an afterschool program. The demands placed upon the two spaces vary considerably. For example, AISE for the most part, was able to construct its own program agenda, whereas the public funding given to schools came with regulations defining the educational experiences offered. Though this may seem like commonsense it was most often articulated by parent-teachers. These mothers who moved between two distinctive educational spaces (the Taealam Academy and AISE) each week. Though there were external factors (i.e. funding agencies) that influenced AISE's programming, the restrictions placed on it (from without and within) are incomparable to restrictions placed upon formal schools. However, this reality did not stop participants from continuously comparing the two spaces.

These tensions took center-stage in an interview with a program student. AISE's students were the direct population experiencing the schooling conditions that everyone around them reflected upon or scrutinized. They underwent this distinction in learning styles first-hand, and potentially wrestled with the ramifications. Aman Mahdi-Mowad, an exemplar AISE graduate who continued his participation through city and regional science fair competitions, uncomfortably reflected upon the impact of participating in these two learning spaces during our interview.

> **Aman**: Chemistry is interesting to me because I like, I like when, I like the idea of combining elements to make different elements.
>
> **Shana**: Okay.
>
> **Aman**: And then separating and extracting an element from a different element. And inside of my science book we're learning about solubility and concentration. I think I am just gonna, I wish I could, I wish I could just keep that textbook because I want to read over a lot of the science stuff I am doing.
>
> **Shana**: So what kind of science stuff do you do in school?
>
> **Aman**: Aaah, well we don't, we don't really, we don't, uumm.
>
> **Shana**: (interjects) Because its sounds like, I think in mine…
>
> **Aman**: (interjects) I wish that our teacher, uuumm, would, ahh, get us some chemistry stuff like here, but he hasn't done that for us. (stated in a low, apologetic tone). I don't know, maybe we don't need to talk about this.
>
> **Shana**: Okay. Well, just know there could be different reasons why. Schools have different resources and different stuff like that, you know? So it could be more challenging to bring those materials into the school.
>
> **Aman**: Yeah?
>
> **Shana**: Because lots of schools have that situation, where you may not have the funds or the resources for more special equipment.
>
> **Aman**: Yeah (stated surprisingly)
>
> **Shana**: Yes. So that's very normal, but even saying things like solubility. My science education, our science program was not that great. So when you were saying that it made me think like "woah, your science program is wonderful" because it is introducing you to these concepts and different ideas. Because when I was your age I wasn't introduced to those things in my school.

Aman: Really?

Shana: Yeah. So I think, I think that is a very good thing. Between your school and AISE you are getting a great education and wonderful science experiences.

Aman experienced the distinctive educational opportunities that parents, teachers and volunteers recognized or *imagined* took place between students' schools and AISE. From our conversation, I assume that if tensions between the experiences afforded in the two spaces had previously surfaced he handled them on his own. From my interactions with AISE's administrators and in reading AISE's literature, students' formal schooling experiences were not a publicly discussed topic. Though as this section illustrated they were a commonly discussed informal topic. As a result of these passive exchanges, I do not think that students' potential anxieties ever crossed an administrators' mind. However, for the children at AISE who attended parochial schools (Muslim or Catholic) it could make sense for them to take more personal offense to views of their schools as inadequate because the schools reflected an aspect of their personal identities. For AISE's Muslim students (who were the majority of AISE's students during my trips) this had the potential to become an issue. The Muslim families at AISE were a part of an extremely tight knit religious community – they attended school, mosque, and commonly socialized together – making one's religious identity central. I had many conversations with kids at AISE about religion and their religious identities. These were always casual conversations, initiated and regularly maintained by the kids. As Aman's parents were both pillars within the local Muslim community, his faith always appeared central to his identity. Though our reflective exchange regarding the resources available at his school was not lengthy, I do think it allowed him to unpack genuine emotions. I know that he appreciated me talking about my own schooling experiences and discussing the collective impact that both his formal and informal learning environments played in his academic development.

Through these two accounts, the educational landscape that framed AISE's formation and continued enactment on Saturday mornings was presented. Between the two sketches a single picture is painted of a context and people, searching for (and hoping to create) fruitful learning opportunities within a prescriptive landscape. As this section illustrated AISE was the product of actors working internally to construct something anew, but who were ever informed by processes and factors external to the program's doors. The foundational layer in introducing a community program was presenting its situated context, as no program is constructed in a vacuum. Many of the program's participants wanted AISE to respond to educational conditions in the larger context. Or in the case of Aman, some potentially wrestled with what those connections meant. There were multiple lived experiences enmeshed in AISE's operation; a teasing out that will continue by unpacking constructions of its mission.

So, What is It?: Mission Statement(s) & Origin Stories

As we move through spaces, we are constantly constructing meaning in response to our lived experiences – socialization, the product of social factors and processes. This social conditioning marks our perception, behavior, and informs the relationships we construct with others. As individuals found their way to AISE these conditions were witnessed in how they constructed the program's mission and at times understood its origin story – central components in framing *what AISE is*. Participants made clear that there was not an agreed upon creation story for AISE. Mission statements and creation stories illustrated the multiple truths that can be present in a single space. Though there is a narrative constructed as the "official" story (i.e. included on the program website) there were multiple and at times conflicting truths shared by participants. For example, during my first two trips to AISE I was met with four different origin stories, one I unknowingly constructed. Though three of the tales shared a general shape, they

did diverge around actors' appearance at AISE and catalysts that advanced programming. Natasha Rodger, a founding volunteer, shared the first origin story I heard at AISE. In it, the program was the impetus of James Gentry and birthed in response to a study he read that forewarned of the dangers of increasingly slow persistence through school for African-American boys if their academic interests are not captured by 4th grade. In response, Natasha indicated that James reached into his many local networks, one being university students from two neighboring research labs, to construct the program. James Gentry and Dawn constructed more similar origin stories agreeing that Dawn initially approached James about constructing a community program, as she felt they were isolated on the Frankfield campus. At that time, James was already in communication with individuals from his church who encouraged him to create a community program for area youth. Dawn and James reached into their separate networks to continue developing the program's main components – securing a curriculum and student body (James' network) as well as volunteer instructors (Dawn's network). Carla presented, a third version where the program was Dawn's creation. Carla placed herself in a pioneering role within AISE's development. Carla's tale, which she repeated regularly, as the president of IAFA, vexed many of the founding volunteers. They felt that she inappropriately wrote herself into the program's beginnings to seek personal accolades. Though a literal chain of events transpired that led to AISE's inception, overtime that chronology became secondary to the (re)inventions made by program participants when they constructed their given truths. My understanding of AISE's origin story was always rooted in participant perspectives, but initially included a layer I unknowingly fabricated. In the beginning, I framed AISE's creation and maintenance as an embodiment of the FUBU moniker (made *For Us, By Us*). I thought it was birthed out of a black population who saw themselves as part of the inner-city context that housed the program, and

through pooling their resources created an educational space for local black youth. However, I quickly learned that AISE's existence was much more complicated, with many variables impacting the "*Us(*es)" present at the program. As a researcher in frequent communication with various program participants I was regularly asked questions about AISE's initial framing, especially from newer volunteers. I was very cognizant of my ability to dispense a given narrative or truth about the program. Therefore, it was important for me to constantly reflect upon where and how my narrative was shaped, making sure it was not rooted in my own judgements.

When it came to AISE's mission statement this truth commonly began from the same starting point, but often diverted into two broad categories that reflected more of participants' individual positionalities. All agreed that AISE's "intent is to educate"[61], "give the children more insight about the sciences"[62], and have them "participate in experiments"[63]. Carla relayed an overall goal shared by the staff and volunteers "we are trying to get the students excited about science. And to expose them to science as something that's fun". An outgrowth from these agreed upon ideas was AISE's formal mission statement disseminated in its literature. This version of the mission was divided into 4 parts. Its main objectives were aimed directly at the students served and extended outward to programming geared towards the surrounding community. Actions did take place in AISE's programming that illustrated these priorities; however program's participants constructed missions that reflected more of their personal wants from the program.

[61] "Wanda Baker Interview" 2011, except.
[62] "Mrs. Leonard Interview" 2014, excerpt.
[63] Ibid

The two broad categories that extended outward from AISE's foundational characteristics framed the mission as either *responding to shortcomings* experienced in traditional classrooms or *exposing* kids to content and people, divorced from any educational happenings in other academic spaces. Lamar Lowry, a founding volunteer, graduate student, and parent to an area high school student provided an example of the former camp.

> **Lamar**: So I think the program's mission is to supplement the science education that kids in the local community receive, by creating a lesson plan that tracks pretty closely with the things that they should be learning in school.
>
> **Shana**: Okay
>
> **Lamar**: And attempting to try and reinforce what they're learning in school with hands-on activities.
>
> **Shana**: Okay
>
> **Lamar**: (interjects quickly) *And* with (pauses) potentially, I guess, (uncomfortably laughs) a different type of instruction, with more (slight pause) knowledge of the subject area.
>
> **Shana**: More science background than the typical elementary school teacher?
>
> **Lamar**: Yes.

Lamar provided a repeated theme present within all program collectives (parents, teachers, students, and staff). The idea that AISE responded to classroom learning, reinforcing that content through hands-on activity, while enhancing students' learning through the introduction of scientists. During our exchange Lamar definitely took his time to construct his answers before speaking, being very particular about his phrasing and word choice. I got the sense that he did not want to be callous in his responses, but also wanted to get a particular point across – particularly regarding science instruction. From talking with teacher-parents and receiving the opinions of retired educators through James, the prevailing assumption was that the volunteers would most often bring more content knowledge to the lessons than the average teacher. The volunteers would definitely bring a less overwhelmed mindset – only seeing the children for a

few hours 1 day a week, or once a module depending upon how often they taught. There was a level of expertise at AISE that would be difficult to duplicate in any traditional classroom. Lamar went on to state,

> **Lamar**: Yes, my intent in talking with James, from the way the program was described to me and the way it's been set up, it seems to me (laughs) to be a partnership – a silent partnership.
>
> **Unison**: (both laugh)

The partnership, here, existed between AISE and the students' formal schools. Officially AISE was built upon a university-community partnership, existing between the church that housed AISE and the minority graduate student organization that originally staffed the program. In practice, the partnership that maintained the program was much more layered, with additional networks coming in and out of usage as it evolved. In this instance Lamar was introducing a silent, but ever present partner for many AISE participants. Silent in the sense that even if a child's school, or specific classroom teachers, were unaware of their pupils' presence at AISE they were still receiving an educational outlet that supported the child's competence and confidence in the traditional classroom.

Those who viewed AISE's mission from the latter perspective (centering on exposure) talked about the program's mission as introducing science in action, which allowed students to become more active agents in their own learning.

> **Martin**: The program's mission is to, at minimum give kids a broad exposure to different kinds of sciences.
>
> **Shana**: Okay.
>
> **Martin**: Like biology, physics, or different types of chemistry – things like that. But more than that, to really get them in the mindset that this is what science is about. About *doing* science. I think that is important because a lot of times there will be documentaries on TV that will be kind of abstract. They will talk about how to do things, but I think we live in a culture that is starting to appreciate science more and more – but in an aesthetic sense. You know what I mean? Like people want to see science, not necessarily do science.
>
> **Shana**: Yeah

> **Martin**: That's fine, but for program's like this – for people to be exposed to science in a hands-on discipline to *see how it's done,* sort of way. This is what it is actually really about.
>
> **Shana**: Yeah. Living it; rather than watching it.
>
> **Martin**: Right.
>
> **Shana**: I like that. I like that a lot.

In practice, Dawn personified this work as,

> Exposing youth to science in action, as opposed to science on paper. So they get to see what's so great about it, but they also learn the scientific process. What's surprising is that sometimes you're teaching in the class and the kids are getting rowdy. And then you get downstairs and the kids are answering the questions and your like, 'wait, I thought you weren't even listening to me'. So, the grand scheme is to teach them science, make sure they understand it, so they can ask their own questions. And we start to see them asking their own questions when they do the science fair in the 4th and 5th grade. Or, even them asking questions at all.

Though views were often clear and fixed, shifts between the two camps did exist. One evolution, offered by Dawn, reflected a more natural progression rooted in AISE's changing student population. When the program began it served local youth from an Edison school in walking distance to AISE. James referred to it as "an at-risk school. So that is part of how it [AISE] started. I wanted to focus on Carmichael because it was an at-risk school. Because it's a neighborhood school, *right here*". In Dawn's case, AISE began as a program that responded to shortcomings in the students' formal learning.

> **Dawn**: When we sat down and began talking about creating a program we talked about the kids in the city, especially inner-city kids in Pendergrass, not having access to science programs in their schools. We wanted AISE to respond to that limitation in their educations. And I feel we created a program that did that.

However, as the student population changed (discussed in greater detail in the 3rd findings chapter) the mission evolved for her, and she saw it existing on a continuum. AISE had the ability to respond to limitations in formal learning environments or act as outlet for exposure, depending upon the particular child's circumstances. Though Dawn's thinking evolved over time, it was always rooted in the value placed upon the students' schools.

Natasha Rodgers and James Gentry provided more nuanced evolutions in their thinking that reflected the impact of processing their thoughts aloud – potentially for the first time, and with a stranger. During my interview with Natasha she described the program's mission through the following, fluctuating, ideas. She began her thoughts stressing the program's focus on exposure.

> **Natasha**: The mission of the program is, in the beginning we really stressed the scientific method. And we still do, but I feel like now the kids have been there for a few years so they really get it. But in the beginning when they didn't – when this was all just brand new – that idea was central. I think another mission was just to bring to them experimentation. The idea of the scientific method, and to question things. Like, just something that opens up their minds to critical thinking and not just accepting things. So it's always like 'well why is that? How would you test it? What do you observe? And what does that tell you?' You know? And it's just this whole different way of living. Like if you questioned why, even if you are 7 and you're in second grade. The questions you're asking will be different later, but you already have that skill set to *ask* questions. So I think to get them thinking about things like that early is really good. And to just expose kids to things that they otherwise would not typically see or do, in a very hands-on manner.
>
> **Shana**: Okay, so that is still the mission now? The last piece?
>
> **Natasha**: Yeah, what *I* think.

Exposure to Natasha meant access to new experiences (i.e. experimentation) and new ideas such as, the scientific method and a problem-posing instructional style. To this point in the interview she stressed the point of giving kids an opportunity to own their own thinking. For them to think through their ideas and be clear on why they were settling on a particular conclusion. Her emphasis on exposure was further cemented after I explicitly restated her point, and she confirmed. However, as we continued to talk, her stance waivered.

> **Shana**: How would you, as a program volunteer, describe your relationship to the Philadelphia public school?
>
> **Natasha**: My relationship to the public school system? Uummm, I don't have one.
>
> **Shana**: Why not?
>
> **Natasha**: Because I don't know anything about it – well I only know what I hear from people about the public school system. And I hear (pauses) it's not the greatest. And they may not have – no – well, that's true (internal dialogue). They may not have the strongest science background for

> elementary kids, which is another reason why I thought the program existed. To bring science to these kids – whether that is the mission or not. It's what I thought. So as far as the school system, I don't see myself connected.
>
> **Shana**: Okay, do you see the program functioning in relationship to the school system?
>
> **Natasha**: I think it could.

In her final thoughts, she closed the interview with a very reflective point on the value of exposure.

> **Natasha**: Overall, I just think it's a great program. The things I like to get involved with are things that I am like 'man, I wish that existed when I small'. And it probably did, but it's the whole access or exposure thing. *For me*, I think that is the most important thing. Because if you can let these kids realize how smart they are, and these kids, they're smart kids! But I feel like a lot of the world is smarter than they think. Or I feel like a lot of people do not rise to their potential, for whatever reason, and there are a lot of different reasons. And for some people they didn't even know they have it in them. So I think that if you can get kids excited about school and the kids here end up being like 'Oh I'm so smart. I'm so smart'. And you [as a volunteer or staff] think 'You are. You're cocky too, but you're definitely smart.'(stated slyly). But if you can get them, to raise their own self-esteem. Their ability to know that they are capable to learn these types of things. I think that is most important because it will carry on later. Because all you have to do is know once that you can do it. And once you know you can do it, you'll push it further like 'okay but can I do this?'
>
> To me the whole piece is, expose these kids to whatever because who knows later. So if you just throw all of these things at them, like science, critical thinking, the importance of questioning things around them – all of these things, a seed is going to get planted somewhere…
>
> **Shana**: Yeah
>
> **Natasha**: ….and it's going to develop later. So its exposure. Let them see as much as we can let them see. And then, whatever happens, happens.

It was interesting to let her reflect, with little interruption or prompting. She was very thoughtful throughout her interview, asking me to repeat questions – even when she was mid-response to make sure she was clear in her own thought process. Similar to what she asked of her students, she too wanted to own her responses. Throughout this reflective process, I do not think she was cognizant of her evolving mission statement or that any of her ideas could be perceived as contradictory. However, during this interview like many others, particularly with staff and long-term volunteers, she indicated that some of the questions asked where things she was thinking

about and verbalizing aloud for the first time. From observations and interviews, it was clear that staff and volunteers' most immediate concern was *in doing* the work of running the program. They most definitely reflected upon program processes with each other, as the program (i.e. curriculum, staff, students, and volunteers) changed over time. However, the work of unpacking larger social implications or programmatic intent, especially to an outsider, where new experiences. Community-based programs with limited staff and resources, as Ferman and Hill (2004) indicated, often end up focusing on more present programmatic needs such as, putting out immediate fires. The work of reflecting, specifically on long-term goals or connecting programming to larger social processes and factors can become luxuries. As I always saw one of AISE's greatest strengths being the fact that it was run by a complete volunteer workforce, illustrating their immense investment, was simultaneously its greatest weakness. The ability to process beyond the *right now* was a luxury rarely afforded. The program consisted of passionate parties, but they were also often extended or overextended individuals. Therefore when they allowed me to enter, to observe and *do* with them some internalized my presence with nervousness (Dawn), the ever present outsider. For months on end during my 3rd trip, I continuously asked them to step back and process aloud. This reflecting was empowering for some (James) and led to unconscious conflict in ideas for others, like Natasha.

James, as the program director, seemed the most cognizant about sharing his viewpoints with an outsider. My status as researcher seemed to greatly influence how he chose his words, stated his ideas, and interacted with my audio-recorder during early interviews. The latter, created an indelible record that was continuously massaged during each of my trips. Following a series of introductory phone calls, my first trip marked our initial meeting. He took me on a tour

of the AISE house, walking me through the site and the weekly Saturday routine. In so doing, he shared the following ideas with the outsider interested in learning through the site.

> **Shana**: How would you describe the program's mission?
>
> **James**: To expose them [the kids] to the phenomenon. To stir their wonder. To expose them to scientists who can share that sense of wonder. I like wonder. That's is our motto! Did you see our motto? (stated with utter joy)
>
> **Shana**: No. *Building curiosity, developing skills, stirring the wonder in a sea of discovery*. (read motto off of an AISE folder to myself) Very nice!
>
> **James**: That's pretty good, huh?
>
> **Shana**: Yeah it is. You should copyright that with the song
>
> **Unison**: (James laughs loudly. I laugh softly)
>
> **James**: So, that is it that really is it (motto as mission). And, so the curiosity piece to build that, let them see the phenomenon. *And* to see and engage with science and scientist[64].

By the conclusion of this 1st trip I was taken aback by the diversity in mission statements I received, but more specifically the conflicting statements I received from founding staff about the program's intent. Reflecting upon the statements I received made me cognizant of my outsider status. For example, it was one thing for James to be reflective in his statements, pausing before answering. However it was another for him to overtly speak into the microphone making clear that statements that could be construed as controversial were clearly noted as my voice and not his. The latter were funny moments at this point in our budding relationship, but they made it clear that he was safeguarding himself from me, the outsider. I understood, and respected his stance. I read it as an instance of the value he placed in his program, and that he

[64] During the interview James talks about the value of the students' exposure to experts or budding scientists as "there is something to sitting next to someone and seeing them do what they are going to do. You are going to know that something is going on there because of their intensity. Their level of engagement".

was not going to become instantaneously familiar with a stranger. I felt at the time I was getting a wall, or his partial truth.

Our second face-to-face encounter, the following April, allowed James' confidence in me to grow. Though I was still the researcher rooted afar in the Midwest, a debriefing session with James and Dawn allowed me to share more of my research objectives and intent in unpacking connections program participants *were making to* students' formal schooling experiences. This was interview content that connected directly to how individuals constructed AISE's mission. I made clear that I was aware of the larger webs that teachers, kids, science education programs, and schools were imbedded in. That any issues present in Philadelphia reflected national trends present in urban, specifically inner-city education systems. This trip allowed him to exhale a bit more and ultimately share his creation story, which was tied to his truth about the program's mission.

By the mid-point of my third trip, many participants saw me as a staff member. I had filled an array of insider functions, and bonds were strong enough between James and myself for him to share the following exchange regarding AISE's alumni.

> Shana: So yeah, so solidifying that alumni base.
>
> **James**: I don't know who, because some of them, I guess we will have to ask because they are in the PACTS program and other programs [local STEM program students commonly enter once they graduate from AISE]. This is fine. My question is how do we continue to keep in touch with them? Or keep track of them, as they are going through these other programs.
>
> Shana: Okay
>
> **James**: I think, I really feel, ultimately, that we can let them go after, at the high school level. Because by then whatever they've got, they've got.
>
> Shana: Yeah.
>
> **James**: So I am a little concerned about the middle school piece and that transition – and all the crazy stuff that happens in middle school. I am concerned that they get through that piece
>
> Shana: So once they hit high school?

James: Once they hit high school, they are on the track for whatever they desire.

Shana: That's also big because it speaks to, in talking to you and Dawn over the years, the purpose in making the program 2nd to 5th grade. So you have this period where you don't have a solidified science teacher.

James: Right

Shana: You want to keep their interests, keep science fun, the creativity, and the confidence so when they get to that middle school phase they'll be in good shape, because there they should get that set science teacher.

James: Right

Shana: That the students feel comfortable coming into the field.

James: Right.

Shana: That you'd want to touch-base with them during that transition period, that makes a lot of sense. Yeah, because that was the whole framework – 'we want to get you through elementary school'.

James: Right

Shana: But then wanting to make sure they're in a good place.

James: So it sticks. So that's an idea that I sort of, is stirring about, and again it involves talking with parents and seeing if they're on board with that.

At this point in our relationship, towards the end of my 3rd trip, James and I were participating in an exchange that was rooted in the students' formal schooling experiences. Prior to this point James spoke to the state of science education in the city as a general phenomenon impacting inner-city schools – not his kids, families, and programmatic intent. Here he is specifically illustrating how he wanted to touch-base with his kids, making sure they remained on track academically as they transitioned out of AISE's direct care. I do not think that any of these final thoughts were new. Or, that they reflected an actual shift in his thinking, but reflected the fact that he was no longer sharing with a stranger. The idea about wanting to work with an "at-risk" school was information relayed during the second trip (his creation story). At that time he was passively sharing his actual feelings. If the program's mission was simply about exposure, kids

from any area school would have benefited from a hands-on science program, access to scientists (with a focus on scientists of color) – even kids from an elite elementary school like Sadie Penn Alexander. However, he initially chose an Edison school "a school *right here*, in the neighborhood". And even when his student population changed, the exchange above illustrates that his intent to respond to his students' formal schooling experiences had not waivered. The schooling context mattered, but as this series of conversations illustrate, so did the state of our relationship. We had to transcend from director and stranger to director and partial-insider for the complexities of his true mission statement, more of *his* truth, to come to the surface.

Secondary Intents: Extending the Mission & Byproducts of Participation

Outside of these two most commonly stated mission statements, which centered more so on programmatic content, participants also shared *secondary intents* for the program that reflected their own positionalities in the city. For example, program parents extended the program's mission to reflect socioemotional desires they had for their children and their development as healthy young people. These constructions were presented as personalized mission statements or byproducts of programmatic participation that became central for some participants. These extended intents were at times shared by multiple participants, but even when a single participant (i.e. a parent) voiced a given intent for the program, it still reflected a lived experience that connected to larger processes and factors coming from the city.

Mr. Albertson was explicit about the academic desires he had for his son's participation. He was clear on the role he felt the program played within his academic development. However, his understanding of the mission did not stop there.

> **Shana**: How would you describe the program's mission, from your perspective as a program parent?

> **Mr**. **Albertson**: Well, the program mission is to educate the kids. Not just in science, but also in other subjects like math. To teach them how to act in interracial situations. How to deal with diversity.
>
> **Shana**: Okay
>
> **Mr**. **Albertson**: It's a program I think most kids, *most parents*, should take advantage of – especially since it's free.

Many spoke to the value of other subjects being introduced at AISE, such as math and reading. This content was primarily included in the curriculum because it aided in presenting the science experiments.[65] Dawn was one who repeatedly stressed the illogical view of science in the local educational context, as it was obsessed (for good reason) with standardized testing.

> I'm really big on education. I think everyone should have a chance to understand science and math. I think those things are integral to forming a proper person. Outside of art. I think art is great too, but I think science is neglected in the schools, especially in Pendergrass. Or where there's regions where there's low performance, you neglect science and focus more so on what the kids are doing poorly in, like math and reading. But you don't realize that science is both of those subjects combined.

Mr. Albertson would see the value in Dawn's thought process. However, as he indicated he did not end his thoughts on AISE educational value. Mr. Albertson was the most explicit parent when addressing the presence of race at AISE. Other parents made reference to the program's racial make-up or geographic location when talking about the mission. They referenced a desire within the program to "make urban children more aware of the sciences[66]". Or an intent to bring "STEM into the urban community[67]". Amarah Azer, mother of a 3rd grader during my 3rd trip and a program graduate went as far as stating, "It's a pretty diverse staff. You see a lot of people from other cultures working with the students". Yet for Mr. Albertson, he made clear that the interracial presence at AISE (which existed between the students and the volunteers) was of

[65] Staff and long-time volunteers indicated that math was also incorporated because they felt that the kids were quite poor in the subject. Therefore, along with working through grade specific math worksheets because they were developing skills needed in later years for Chemistry (AISE 5th grade). Math was also included to give the children simply more practice with the content, receiving personalized feedback from the volunteers.
[66] "Amarah Azer Interview" 2014, excerpt.
[67] "Sister Sultana Interview" 2015, excerpt.

central import to him. Throughout his interview the only other reference he made to interracial encounters in the city occurred within the public school system. These existed between white female teachers and black students and staff. And he did not construct these relations in a positive light, commonly with the former constructing the latter and their academic potential as inferior. However, he felt that AISE opened up an opportunity for his son, a 3rd grader at the time, to work through interracial social encounters in a safe place, and with people who supported him through his educational development. The volunteers were not strangers, as his son was in his second year at AISE.

I do not think that this idea, teaching the kids how to interact in interracial situations, was at the heart (or periphery) of the founding staff and volunteers' minds when constructing this program. As the original staff was majority African-American, and the "official" mission's only reference to race was to allow program students (who were always all African-America) to work with scientists who look like them, to help them imagine their place in the natural sciences. Allowing them to broaden their own understanding of who they could be in society. From early on in the program history there were always a small handful of white and non-black people of color at AISE. Overtime staff demographics did evolve further, through word of mouth advertisement and specific departments/organizations picking up different modules to staff and design curricular for. There was an increase in the number of white women and staff of color (non-black graduate students). Mr. Albertson's statement made me think about the number of other spaces, safe spaces, which existed for his son to meaningfully engage with diverse populations. The area that housed AISE was racially and economically homogenous. I do not know if Mr. Albertson and his family resided in the neighborhood, but I do know that he learned about AISE through his church, Mount Zion Baptist, which was located in a similarly racially

segregated black neighborhood. As I reflected upon his words, and what they meant for his son, I knew perfectly well that they also mimicked my movement in the city. During my time in Philadelphia I lived on a block that was equal distance between AISE's black neighborhood and Melvin. Depending upon what grocery store or restaurant I went to, moving east or west from my apartment, my landscape also changed drastically from majority black in one direction to majority white in the other. As a 3rd grader mediating space, his movement would be defined by the local institutions (i.e. school, church) and community outlets (i.e. youth centers, sports) circumscribed by both his parents and the city's segregated make-up. AISE had the potential to be unique in the lives of the kids it served because it seemed to be one of the few interracial outlets, allowing for long-term, intimate engagement. If this was something of value to students, parents, volunteers, or staff – as it was for Mr. Albertson – AISE created an opportunity for such socioemotional development.

Traversing divides at AISE also helped participants see beyond cultural walls erected within the fabric of the larger city. Unpacking religious differences, for example, amongst site participants became a factor with the arrival of its second wave of students. The majority of these students, who were present by the time of my first trip, hailed from the local African-American Muslim community and the Taealam Academy. Sister Amina, the original parent liaison, felt that AISE's programming clearly supported classroom learning, but for her the mission did not end there. Participation for her youngest son, also created the unexpected benefit of helping him process issues surrounding his identity, the product of larger social conditions in the city. Before participating, she noticed that her child was retreating into himself in response to what he understood as hatred in the city towards Muslims.

> **Sister Amina**: One of our big holidays, Eid al-Fitr, it was around September 11th; and so some people were saying move your holiday. And that was like 'huh', we can't it's on that day. It does not happen like that.

Shana: (interjects) Yeah, that's like saying move Christmas.

Sister Amina: Right, but he [her son] saw a lot of things on the news and after that I just noticed he was – He loves his religion, but he's scared for other people to know that he's Muslim because he thinks automatically they are not going to like him. He actually thinks that if you're not Muslim you want to hit him. That you want to do something physical to him. So, he is the one I am really concerned about. Mr. Gentry, he knows my older kids because they were in Collective Strength. Now he knows my younger children, and he [her son] trusts him. So it like little, by little. And I don't want him to be fearful so this is a little avenue for me to get to do that. So for him, I know that it's something that we are still trying to deal with, but this is a safe place for him. That's how he feels; that he's safe here, but he doesn't know about other places.

Shana: But its beginning steps.

Sister Amina: Yeah, exactly, so I have gotten feedback from him…He is somebody who, he is like Mr., he does well in school, but he jokes and he's friendly and so this is not his personality naturally, which is why it's such a concern. I can't have my son damaged. I need for him to stay open to people.

Shana: Yeah that's huge.

Sister Amina: So it's like I'm fighting.

For this parent, AISE created a safe space, for her child to be more of his authentic self. AISE was a space that allowed him to unapologetically walk in his Muslim identity without fear of retaliation. She felt that AISE allowed students an opportunity to problematize identity constructions and engage in healing processes through weekly engagement with the distinctive religious communities present in the site. Though AISE took place in a house with no religious markers indicating that it was a part of a Christian institution, it was known (by parents, staff, and some volunteers) that the building was a part of a church. The breaking down of walls between diverse communities, in this instance faith communities, was very important to Sister Amina. She emphatically stated that she made a point of telling AISE's Muslim children that "yes, we are going to *church* for *AISE*". It was also known that Mr. Gentry was a pastor. The students, particularly the Muslim students, referred to him as Reverend James (rather than Mr. James or Mr. Gentry) in response to his clergy status. Sister Amina liked that AISE brought

together people, but particularly "kids from different religious backgrounds. I like them seeing that early". She wanted them to have an opportunity to normalize each other's identities, particularly their religious identities. In this context, where it was known that both Christians and Muslims presided, Sister Amina's son knew that this community did not want to hurt him. She made clear that he did not feel that way in all non-Muslim contexts in the city, but at AISE he felt safe.

In terms of constructing an engaged educational space, all agreed that the program was made, first and foremost, for area youth – specifically African American youth. However, AISE brought another student population into the mix, graduate students. These latter students were also catered to by AISE's programmatic structure. As one of AISE's goals was to introduce black youth to scientists of color, particularly black scientists, the program's mission had to address how that mentoring population would consistently enter the site. The program was not meant to directly serve graduate students, but was centered around them – leading some graduate students to see themselves at the program's core. This idea was relayed by Dawn, in response to a recruitment drive conducted at IAFA.

> **Dawn**: And that really helped people sign up on the spot and not be afraid to do it.
>
> **Shana**: Okay.
>
> **Dawn**: I think for the most part, people were like, 'what do I need to do? Do I need to, do I need to write a lesson'? I think they were really concerned with the amount of work that was expected of them. We designed the program with them in mind. It's *designed* for a graduate student. We just reiterated that. It's designed for you to come in, give back and teach. It's to help you. It's to help them [AISE's students]. It's not to give you more work.
>
> **Shana**: Yeah
>
> **Dawn**: It is reviewing a lesson for a few hours, coming in, and teaching that – executing that lesson.

In terms of AISE "helping" graduate students, Dawn wanted it to be a place for students interested in outreach to be able to give of their time and expertise. She felt that students, herself

included, were isolated within the city – commonly existing in a bubble that orbited around the Frankfield campus. She described her world as a student, prior to co-creating AISE as, "being in a cocoon here. We didn't do anything. We needed an outlet to serve the community. I thought, what can we do?". For her, establishing channels that successfully ushered volunteers from campus into the community was a central part of any long-term success at AISE. Through this process, one could see responding to graduate students' needs as an unofficial part of the program's mission, as they were central to its intent. AISE's structure allowed volunteers to engage in a community program built around their academic needs. Frankfield volunteers, who were all in the natural sciences, were required (from their second year onward) to complete approximately 25+ work hours in a research lab each week. Therefore, staff understood that any type of volunteer initiative that wanted to attract droves of graduate students needed to take place on the weekend. James and Dawn, constructed the program on Saturdays for this reason. Martin Rizzo, a 2nd year volunteer, elaborated upon this point when stressing the importance of AISE rotating volunteers and maintaining a substantial volunteer pool as initiatives that not only supported program operations, but also the needs of its older students.

> **Martin**: I think that the rotating schedule is, really does alleviate that idea of – this is a whole 'nother commitment that I have to do every Saturday.
>
> **Shana**: Exactly
>
> **Martin**: There are enough graduate students, in a given university, especially if you're pulling from multiple departments. I can see something like that.
>
> **Shana**: Even to think, 'well okay in the fall we focus on chemistry' if you can devote 1 weekend in that one session.
>
> **Martin**: Right.
>
> **Shana**: Then we can do something with that. Like, if there is a specialty that you feel is a niche for you, you can divide your time even more – where you focus on a particular thing. Fall unit you volunteer once or twice, and you know that is my contribution. Yeah I think they've done it very well because burnout is a big deal, especially with staff. They tapped into staff in a nice way to alleviate burn out.

Martin: Yes.

[20 second break in transcript content]

Shana: I think as scientists, Dawn and James – having been in your shoes they can appreciate the expectations on you.

Martin: Right!

Shana: And build a program accordingly. Yeah, so having that perspective.

Martin: Totally.

Martin illustrated a context where students were able to contribute to the program in meaningful ways that related to their expertise. Their involvement was not superficial or tangential to program offerings. Purposeful engagement in the community was a point that all of the volunteers spoke to. However, the smaller collective of volunteers who had previously volunteered through other community outlets, prior to AISE, stated the difficulty they found in locating such opportunities. Celina Santos, a 1st year volunteer, elaborated upon this idea through her experience with BioEYES.

Celina: I have tried a few other outreach-type activities since I've been here. So, I guess I mentioned this program called BioEYES where, I guess it's done in – they coordinate it with teachers from middle schools. I think that is the part I participated in

Shana: Okay

Celina: There is an education coordinator here at Frankfield. So they set up these little lesson plans where they bring model organisms, so I guess they're bringing zebra fish, into the classroom, into the science classroom. And they would do this whole thing, like for a week. Where the kids would set up little experiments. I think that was a really cool program! There were asking for volunteers to help out.

Shana: Okay

Celina: And I did a little of that, where I would go to a couple of sessions and just help the kids with whatever they were doing in class. But it felt, it was, it was really, it was totally different from AISE. And it felt like, I guess, I only participated a few times. But I felt like I didn't get much of an opportunity to really interact with the kids. It was kind of like, the teacher was leading the thing and I was just there – to help out. And I wanted to talk to them about research and science, and what I do, but that didn't happen (slight uncomfortable laughter) So that was a little bit underwhelming. So I had done stuff like that in my first few years here.

Shana: Okay

Celina: And I was like, 'yeah, it's good that people do stuff like that', but I didn't feel like there was a place for me in it.

Along with BioEYES, volunteering as a mentor for 2 weeks through the Percy L. Julian Science Fair was another method that many volunteers used to engage with local young people. Yet they repeatedly described the experiences as more superficial time spent with area young people.

Finding a space where graduate students could give back in ways they found meaningful was vital to their retention. AISE's ability to make this possible was predicated upon understanding the population and constructing programming around their needs. Being central to programmatic design, made them integral to the mission of serving area youth. Ultimately, AISE had two student populations that it had to cater to for programming to flourish. The idea of AISE being designed, in part, for graduate students was not recognized by all, but it was a truth for some. Graduate students experienced many beneficial byproducts from participation (discussed in the 3rd findings chapter), but before they could experience any residual benefits they had to first be catered to so that they could afford to come through the front door.

As this sample of participants illustrated, the program's intent extended beyond an emphasis on exposure or responding to formal schooling conditions. Often these secondary intents reflected potential baggage carried by participants or lived experiences produced through their movement in the city. The program's ability to respond to these macro processes and factors could motivate continued participation, as they added another layer to the program's perceived value. AISE was, first and foremost, about gaining hands-on learning experiences through access to area scientists, but it had the potential to be more than that. It brought together complex people who walked distinctive lives within the larger city. These were people whose

movement in the city informed their desires for programming, ultimately helping to shape AISE's "*So, what is It*?".

So, What is It?: What's Created?

Inner-city community programs, like larger education reform and policy initiatives, can be caught up in the cure, band-aid, or problem paradox. Where any and every initiative of value entering the schooling contexts should be a homerun to be viewed as a success. Growth over time or learning from smaller or singular enterprises are potentially too slow; in an educational context often on the quest for the next silver bullet. From an external perspective, gazing upon the program – as local citizen or funding entity – asking *"So, what is It?"* can come with lofty (or unrealistic) expectations. The same can be the case for the internal gaze, but such perspectives are more often aware of the work involved in *doing* – maintaining the program. As this chapter shows, *the doing* can be rooted in multiple diverse truths and expectations; where responding to the question "So, what is it?" can mean completely different things depending upon one's positionality.

So, what is it? from my privileged perspective as recording scholar? Walking into the AISE house on a Saturday morning one would see a community program that served approximately 25-30 kids each week. If that person arrived during the opening and closing sessions they would see all of the participants gathered in two connected rooms on the first floor, a former living and dining room. The converted house, built in the first half of the 20th century, offered an expansive floor plan and ample wall space to display program materials amidst a once functional fireplace and large windows. The walls would be covered with pictures of kids and volunteers from over the years engaged in experiments in the house, its backyard, and at Cobbs Creek. The program song that taught the kids the scientific method to the tune of "If You're

Happy and You Know It" would be on the wall next to the main entrance. And purchased posters of black youth dressed as scientists with moniker such as, "Explore the World" and "Ready, Set, Science" passively signaling to program youth that they belong in the natural sciences. The kids would be arranged around a large table. Parents and younger siblings would sit behind them in chairs or standing along the walls. Volunteers, would be gathered in both rooms, talking through lessons while staff led conversations ushering the kids into and out of the day's overall theme.

The program introduced learning experiences to area African-American youth that would be novel in most any formal or informal educational setting. For those operating within AISE's walls, *what is it,* often settled upon what they specifically needed from the program. For example, wanting AISE to support classroom learning was a practical program objective for parents who felt that something was missing from their children's formal education. For a local resident, like James Gentry, who did not have children in city schools, but was one of the few African-American staff members in the natural sciences on Frankfield's campus – it made sense for him to be concerned with exposure. Particularly exposing young African-American youth to new ideas, people, and experiences that would hopefully root their interests in the natural sciences for years to come. I too drew my own conclusions for AISE's programming. As a graduate student in an education policy studies program I often found myself imagining AISE's intent in terms of the bridges it built between students' formal and informal learning settings. No party came to the program empty-handed; all had expectations. However, as a researcher it was my job to be vigilant of my external gaze and engage in practices that curbed it so that I could remain open to the constructions of those within and outside of the site.

So, what is it? It's not a tutoring program. It's not a Power Hour focused on drilling kids in standardized testing content. Is AISE cute, (as its been called), but not necessary right now, for

these kids? Is it a luxury that they can't afford, or a luxury – an educational space rooted in play – that they can't afford not to have? If AISE took place in a upper-class neighborhood like nearby Ardmore, PA or in an elite school such as, Sadie Penn Alexander people would not have the same concern, that it's not enough. It could simply be an amazing program offered to local kids. People would marvel that it's free and the instructors come from an elite university. However, in an inner-city context expectations, rooted in this paradox, can easily swing to superman or bust. An unfair reality, in this case, placed upon programming operating in one of the nation's poorest school districts and more segregated cities. AISE offers a complex space, grounded in the familiar (a worked-over inner-city), composed of rich resources (from the same worked-over inner-city). *So, what is it?* The mobilizing of diverse collectives, piecemealing a program that helped black kids see and experience anew without having to leave their neighborhood.

CHAPTER 6: WHAT'S BROUGHT TO THE TABLE: NEGOTIATING SPACES & CAPTIAL TO PRODUCE PLACE

As an education program, the product of localized resources, AISE did not embody the capital and players commonly featured in mainstream educational partnership initiatives. These are partnerships featured in the university-community engagement literature as well as those in the larger literature on school-community partnerships. Joyce Epstein is one champion in the field of educational partnerships understood to provide a "Gold Standard" for partnership work (Epstein, 2010; Epstein et al., 2018). Within her heavily followed framework, partnership-based programs are often outfitted by large taxation streams, booster clubs, and PTAs – the product of leisure-time and generational familial/communal economic wealth. Programming commonly featured in the university-community engagement literature is the product of expansive grants from public and private institutions and foundations (Dubb, McKinley, & Howard, 2013a, 2013b). The capital mobilized to enact AISE fell well outside of these commonly heralded channels, but illustrated the potential organizing power of inner-city collectives and institutions. The intent of this chapter is to bring to light and examine the capital present within this context, assets rooted in both sides of the partnership. The resources that entered AISE to construct and maintain the program came in two forms – human resources (individuals and collectives) and physical resources (material items). They commonly came from two entities, Frankfield University and the larger Pendergrass community that housed AISE. Though university voices and perspectives are the common mainstay within the partnership literature, my efforts to produce a more equitable analysis include providing a richer conversation on the community actors present. The latter population (and the resources they contributed) come from the side of university-community partnerships less commonly featured in this literature.

Creating Place: Mobilizing in and Through Pendergrass

African-Americans, predominantly from the Pendergrass neighborhood, made up the *community side* of this engagement initiative. They mobilized essential resources to sustain this partnership. The first pivotal resource needed for the community program to operate was a literal space, a location where all of the mobilized human and physical resources could touch down and help to create *place*. This built capital that AISE's staff tapped into came from the material wealth found in African-American faith institutions. The neighborhood was representative of the black communities found across Philadelphia; its faith institutions consisted primarily of both Christian and Muslim institutions. Though store-front institutions are found within both faith communities, there are many churches and mosques present in the neighborhood with much more expansive property. In most cases, the latter institutions' large land allotments are indicative of their historical longevity in the city. The Baptist church that housed AISE within its auxiliary building provided all of the program's needed infrastructure, specifically the primary usage of an eight room, three floor home as well as fulfilling administrative functions. AISE's program meetings, classrooms, and main office were housed on the two main floors. The lowest level, a basement, was used to store materials for out of season modules and large instruments needed for group demonstrations. Through the house, the church allowed AISE to safely secure all of its programming materials. Church staff also allowed AISE's staff access to equipment and space in the actual church such as, the copy machine and the gym. The latter was needed to hold the biannual Science Bazaar. Though the house was also used for church-specific activities such as, new member classes and a short-lived GED program spearheaded by a member of church clergy, these programs existed around AISE. Its materials (and at times incubating experiments) were never taken down or moved. This community asset – this instance of Pendergrass' built

capital – allowed AISE to function. Local community members provided the physical infrastructure needed to begin the process of making place.

The literature on community engagement often does not give much space to addressing the work required to access a community setting. However, how access to a site is established and maintained is essential to unpack (Adamuti-Trache & Hyle, 2015; Jentleson, 2011; Olszowy Jones & Lee, 2017). This lack of detail in the written work, specifically how university actors enter community spaces can make sense when considering some of the larger trends found within the literature, in particular, the often skewed power dynamics between community and university partners – especially in the production of the written work (Bortolin, 2011; Yamamura & Koth, 2018). In this engagement initiative, how the church was accessed was rooted in the human capital present in this community setting – specifically the capital that James Gentry carried.

> **James**: I happen to be sitting across from Dawn and she has *no* connection to this part of town, but I do.
>
> **Shana**: Yeah.
>
> **James**: And so, I'm like the conduit to, cross 25th Street.
>
> **Dawn**: Yes.
>
> **James**: And I don't know. I don't know how comfortable. How comfortable people from, how comfortable people – Dawn, for example, would have been, had she, number #1, actually known of any place to come. How comfortable she would have been coming and saying 'You know, we have this idea. We want to work with your kids'.
>
> **Shana**: Yeah.
>
> **James**: Or how open the congregation would be to this outsider. Her coming in and saying we want to
>
> **Dawn**: (interjects) I am not a member yet. (stated in a comical, yet preachy tone)
>
> **James**: Yeah. (laughs)
>
> **Dawn**: You ain't no member!? You ain't a member of this church. I don't see you here! (comical, yet questioning tone – personifying a congregant)

James: That's right, what are you doing here? (tone personifying a congregant)

Dawn: 'You ain't on the usher board. You ain't been here all your life! I'm just sayin' (continues with comical tone – personifying a congregant)

James: So, I think that is a challenge as well.

Shana: Yeah

James: How to make a connection like that.

This Pendergrass institution would be closed off to a random outsider, in this case Dawn or myself. James was credible, as a local resident active in the community and a church member. His work in the community from previous local-level programming initiatives preceded him. For the average individual entering Pendergrass this would more than likely be a closed community and a closed institution. Pendergrass and this faith institution, like any neighborhood or institution, have their own ways of knowing and politics. As this excerpt illustrated, "entering" can be a layered practice that required multiple levels of access. It necessitated the capital of a local resident attached to the church, rather than any clout associated with university pedigree. Appreciating the processes and factors, by including them in the written work, produces a more honest image of the labor involved in beginning a partnership.

In a separate interview James went on to remark about the church congregation's friendly nature and his desire to invite the graduate students to church events. However, AISE's acceptance into the church's space still required an *usher* – a cultural broker. It required someone with local social capital, for this border to be traversed. As James stated, he became a "conduit" for other community groups (i.e. Muslim families and university students) to successfully enter the neighborhood ("cross[ing] 25th St.) and/or the house (church's property), and collectively grow a program. As an usher, broker, or conduit, James existed on both sides of the partnership. His 9 to 5 job solidified his credibility on the university side of the partnership and his residence,

race, engagement history, and faith sustained his place in the Pendergrass neighborhood. As a local resident and church member, James parlayed his local and institutional capital in important ways to help sustain AISE's existence in this space. He used his capital to present AISE to the church's leadership as a value-added component of the church's Christian Education program (operating alongside Scouts and its Sunday School), which allowed AISE to function in the auxiliary building free of charge. James' ability to construct this instance of interest convergence was not the simple fact that he was a clergy member, as the previously mentioned short-lived GED program was run by a more senior reverend. After an inability to pay the agreed upon rent for usage of the space the program was kicked out. James illustrated to church personnel how AISE not only fit into the church's larger outreach mission, but the fact that it was also presented to them by a local resident with a proven record of producing thoughtful youth-oriented programs only bolstered AISE's efforts.

Other essential human capital from the community side of this partnership that supported either AISE's initial development or its continuation, were two city educators and the AISE parent liaison. Vanessa Victors, a member of James' church whose professional background in the local school system was originally unknown, helped to design the initial curriculum (2nd and 3rd grade). She was a science coordinator for the city and designed its second-grade science curriculum. She helped AISE's staff construct its initial programming around the district's science standards. In our first interview Dawn relayed Mrs. Victor's opinion on the state of science education in the city and how AISE could build upon that framework through their programming. Dawn stated,

> What she [Vanessa Victors] was saying, was that most of the schools aren't performing well. So, they may not do science, but those that do have a set curriculum the kids aren't able to have a hands-on experimentation with the things that they're doing. They don't get to apply what they are doing, you know, so many kids in a classroom. So, we pretty much just take what they have already done and come up with the individual lessons for each Saturday. We determine the

> learning goals the kids would need to accomplish, and we come up with all of that. And we then do it in a small group session.

After the curriculum was developed, Mrs. Victors and a retired principal continued to act as James' two main auxiliary support staff. They held training sessions for the volunteers and during the first couple of years sat in the classrooms with the volunteers to provide additional adult supervision.[68] In interviews, James repeatedly stated that accessing teachers was not difficult for him. The opportunity to call upon educators, specifically black educators, was something available to James in Pendergrass through his relationships in the city, and specifically his church network. The parent liaison role, which was always fulfilled by program parents was an important function, essential to mobilizing other program parents and completing needed administrative roles. Sister Amina, in AISE's second year, was the first parent liaison. She acted in this role until she had her daughter (during my 3rd research trip).

> **Sister Amina**: I am more of the communicator. I discuss things with Mr. Gentry. Did he tell you about how we actually partnered up; that we had known each other from another program?
>
> **Shana**: Briefly.
>
> **Sister Amina**: Okay
>
> **Shana**: But if you want to elaborate, from your perspective. That would be great.
>
> **Sister Amina**: Okay! Alright, we are both adult mentors for Collective Strength, which is an interfaith youth group. Where they do community service and they, and they discuss each other's religions. And so, because we worked together through that he was like 'hey, you work in a school? Do you want your kids to be a part of this program?' So we already had a working relationship from that. And of course, I jump at anything that is enrichment for our students. So, even though it's a different age group, you know, I was like free program that does all of this for the kids. It's like a little jewel that I don't think enough people have discovered in the community. Even though he has tried to promote it, but anyways, I think that my role is to get the information out to parents. To try to encourage them because I tell them the value of it. I tell them what the kids do. I tell them that my kids have been in the program, so I explain to them – sort of like what I talked to you about.
>
> **Shana**: Yeah

[68] As the volunteer numbers picked up in years 2 and 3 this "teacher support role" in the classroom dissipated.

Sister Amina: Just reminders to have people come. Just like 'You know, class starts up again guys.' Try to push them for that. Pushing them to participate in the science fair.

[10 second break in transcript content]

Sister Amina: That is one of the things that I like. We [her and James] are always like '*Next year, we are going to do this, this and this!!*' I think, that is the other way I can help. I think I do the communicating, but Mr. Gentry and I will also sit down and say like 'What about next year? We could do this, or that.'

Shana: Sounds good.

Sister Amina: For example, I know that I have encouraged him to expand the program more. Because, every year he will say 'I swear we are not adding one more grade.' I am like 'are you sure? Don't you want to keep those kids? Just one more grade?' (stated in a playful, but plotting tone)

Unison: (we both laugh)

Shana: So we started with second grade. (tone – playing into plotting scenario described above)

Sister Amina: (interjects) 'How did we get up to 5th grade?' Sometimes I think he is going to be like, 'How did this happen?' I will be like 'Wait, don't you want to go to high school?'

Shana: Right.

Sister Amina: Yeah. I think, I think I am reaching my limits with how much I can do this. But some things we are just on the same page with. Like, I was thinking we should participate in the science fair. And before I said it, we sat down for a meeting and he said 'What do you think? Do you think our kids would be ready for the science fair?' I am like '***Yes!!***'

Shana: (I laugh)

Sister Amina: '**YES, I Do!!**'

Shana: (I laugh)

Sister Amina: So, I think another thing is being a cheerleader. Like, it's a lot harder to push through doing things because it's a lot of work, especially when you're not getting any monetary reward, or anything like that. It's hard to *every week*, (deliberately and slowly stated last two words). That even when the kids aren't here, planning stuff in the summer time. Or before or end of the school year. There is a lot of planning and care that goes into getting this together. And I guess it's that – finding my enthusiasm for it.

Shana: Yeah.

Sister Amina: To be like 'Awesome! Okay let's make this happen!' So, and I really feel like, I wish that more people supported him. I know that he has some people who support him from the church and some people who work for the school district. He does have that, but I just – I appreciate the program so much. I just feel like, that's the least I can do.

Sister Amina was a charismatic African-American woman. A mother of six with lots of energy. Like her work at AISE, she brought the same enthusiasm to our interview. She held many roles at AISE. In the above excerpt she described herself as a communicator working in concert with James; an advertiser to parents; a program coordinator conducting pre and post planning sessions each year, and a cheerleader championing for program expansion. She appreciated the novelty of the program within the local educational context as well as the fact that her children were able to benefit from it. *Her* children extended beyond her biological children. Sister Amina's reference to "our kids", which was stated a few times during the interview, was made in reference to Taealam Academy's students. She was intimately involved with the Muslim families (present at the school) and promoted the program in that circle. This aspect of Sister Amina's role, advertiser, came up repeatedly in staff interviews. She was pivotal in mobilizing the parents from Taealam Academy. She closed the above segment stating that she wished James had more support from different communities in the city and James shared the same sentiment. He understood that his parent liaison was able to advertise more exclusively, but fervently in one particular community. He did not have a liaison within any other community (i.e. local schools, faith communities) who had the human capital to pull parents into AISE's programming.

By AISE's second year, the student population was primarily from Taealam Academy and that sustained flow of young people had a lot to do with the capital held by Sister Amina. Just as vital as having volunteers cross AISE's threshold, the program would not exist if there were no kids. Not that local, non-Muslim, parents were uninterested in AISE's programming, but I would argue they needed a trusted channel to usher and welcome them into the space. Once a part of the program they would also benefit from friendly reminders about weekly programming

from a participating parent.[69] The fulfillment of this role was vital and when sister Amina had her daughter the role was taken up by a collection of program parents – a mother and two grandmothers (a Taealam Academy mom and two grandmothers from the Baptist church network) who acted as liaisons. They did not fulfill the role in the same fashion as Sister Amina – they focused more on administrative roles, rather than parental advertisement and working on programming with James. These liaisons made sure snacks were secured and arranged for the kids, set up the various sign-in sheets and nametags, mobilized parents participating in the science fair, and purchased and donated furniture and draperies for the house. This position came with no job description or template, parent liaisons fulfilled roles that were reflective of their positionalities in the city. They gave from their strengths. Acts such as organizing name-tags and sign-in sheets as well as arranging snacks may seem more trivial, but in community programming they are essential acts needed for funding purposes (maintaining an attendance record) as well as being a potential catalyst for community building. In interviewing AISE's kids, for example, every child talked about their favorite experiments and the kids they liked to hang with at the program, but not one interview excluded a conversation about snack. Food provided an opportunity for the kids and adults to decompress after their lessons. They laughed and joked with each other over healthier sweets. Human capital from Pendergrass helped to sustain the program, most readily by providing the physical space to house it (through AISE's inclusion in the church's educational platform), mobilizing community groups to participate (i.e.

[69] This point came up during a debriefing meeting with James and Dawn. We talked about other local channels to tap to promote the program in contexts that local African-American community members would see as credible. We concluded that advertising through area schools may not be the best way to get the word out. The schools were not in good shape and connecting AISE to it may actually undersell its offerings. Dawn made a comical statement that it could be like advertising the program through the local police, another entity that residents did not have a lot of faith in. We concluded that they should begin advertising for AISE through area recreation centers, barbershops, and beauty salons. James loved the barbershop idea, as he knew the owner of a local shop that many of the area families utilized. That shop was a trusted local resource.

Taealam Academy families) or by fulfilling administrative roles. These resources – literal space, access to local networks, and material items – were vital components rooted in the community side of this partnership.

Creating Place: What Locations Say to Us

Along with the programmatic benefits fulfilled by Pendergrass residents, one parent liaison took the idea a step further to the value-added nature of programming taking place specifically in this section of Pendergrass.

> **Sister Faqirah**: The fact that it's not at, I think, the location actually plays a major factor. Because it's not in this intimidating science, it's not in the classroom, it's not in this science lab.
>
> **Shana**: Right
>
> **Sister Faqirah**: (interjects) though they do visit the labs at different times. It's like 'Science at Home' or 'Science Here'. Do you know what I mean?
>
> **Shana**: Yes.
>
> **Sister Faqirah**: That adds a factor to it too.
>
> **Shana**: Yes. And some of the volunteers said that as well. That they too like that the program takes place within the community. They related it to the kids, but also saw it as a respect factor. That you have these individuals who will come out of their labs; come off of Frankfield's campus and meet you where you are [in terms of geography, rather than state of mind].
>
> **Sister Faqirah**: right.

Sister Faqirah saw AISE's location in this inner-city community as a level of respect given to the kids and the context. The kids did not have to be bussed or shuttled out of their home environment to obtain something seen as special. This type of intimate learning was made normative for these kids, especially those who matriculated through the program over multiple years or as sibling groups. In student interviews, no comment was ever made on this topic.[70]

[70] The only major noteworthy comment that I heard from a student, regarding the location, came during my 3rd trip. The comment was made by a new 2nd grader. She was an African-American child who we grew to know was very vocal, with less of a filter – a more typical second grader! When she entered the AISE house for the first time with her mom she loudly said, "Wow, this is different". I heard her comment and watched her as she looked around the

However, as they averaged ages 6 to 12 years its arguable that this idea completely did not register or they were socialized to see this extracurricular opportunity, this instance of "science here", the same way it made sense to stay local for attend their mosque or church, school, or soccer at Worcester Park. Other adults at AISE – specifically African-American volunteers and Dawn – regularly made this same point. Volunteers discussed the importance of diverse communities coming together, especially for those who did not reside in the local neighborhood. When conversations surfaced about potentially moving AISE to a larger building, in response to program expansion, location was a major point of consideration for many staff members. For example, Dawn never wanted the program to move to Frankfield's campus. Similar to Sister Faqirah, she felt it projected a message that worked against one of the ideas she had for AISE, and its relationship to space.

> There are a lot of programs like 'Let's bring them to the university and show them this *great place* and all this jazz' But why? Why don't we show them, that even within their own community there is a program for them? Where someone thinks they're [the kids] so important that they will come out to them and teach them science. As opposed to let's just bus you in and show you this. I feel there are so many programs that bus kids in, which is great. But I do think it says a lot when someone is willing to step out of their comfort zone and come help you.

Making AISE's diverse collectives, especially its university students, come into this Pendergrass neighborhood to experience 'science here' was not something taken for granted or lost upon some of the adults (i.e. parents, staff, and volunteers) at the site. For individuals like Dawn and Serena experiencing "science here" was not something that just benefited the younger kids, but also the volunteers. From interviews (discussed in the next chapter) it did help to counter stigmas placed upon the area.

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room in surprise. When James greeted her and asked her why she was so surprised she stated that she had never been in a school with so many black people before. James slightly laughed. I learned in time that she attended a private school. So I assume she was one of a few children of color. In her exchange I also noticed that AISE had been presented to her as a school, I am assuming by her mother. However, it was the racial make-up that was new, and worthy of notation.

However, this emphasis on *creating place* in this inner-city Pendergrass neighborhood was not without its critics. Carla commented in an interview about wanting to see the program become more legitimate. For her, legitimacy meant leaving the house. As she put it "getting into a *real* place" and moving to the university campus. For her, this would be done in an effort to symbolize that the program was properly growing, "I would *love* to see it become established, maybe like a partnership with the university". Her comments surprised me because the program was a known partnership with an entity on Frankfield's campus. However, as she continued in her interview, I believe her reference to "established" meant connected to Frankfield with a capital "F", not subsidiary student organizations. Connected to the larger university could mean connected to Frankfield's money, branding, and reputation in the city. Though there are benefits to being associated with such a premier place, others at AISE discussed the fear of co-optation that could come when moving too close to any larger institution (university or community-related).

Since the house was connected to the church it created a problem for some to cross the threshold and participate. Carla stated,

> I think a caveat for some people is that it's adjacent to a church. And that for some people that may be a limiting factor as to whether they volunteer or bring their kids. Not everybody, but if we could separate completely from it, it would help.

Though this sentiment was connected to potential program parents and volunteers, I believe her point was directed at a longstanding graduate student, and member of Increasing Access For All, who chose not to participate in AISE's programming because it took place in a house owned by the church. This graduate student and his position were discussed over the years by many longstanding volunteers and staff members. He was a Muslim African-American male who grew up in the neighborhood and attended the same local mosque as the majority of the kids at AISE. James repeatedly commented on how important it could have been for the youth to see a local

black Muslim male with a strong background in the natural sciences. However, during my time in Philadelphia he was known to purposely disassociate himself from the program and while serving as the IAFA outreach chair, to have intentionally stymied AISE's advertisement through IAFA. Creating 'science here' had its proponents and opponents, depending upon the meaning individuals attached to the local inner-city landscape and the literal location that AISE took place in each Saturday morning. The community side of the partnership had many intricate layers necessary to unpack to more fully present the complexities of the program. There were specific ways of knowing, politics to be negotiated, and gifts that local residents brought into the program that shaped its continued formation.

These Hands: African-American Parents & the Capital They Carried

Jaime: Hopefully – I think it's a really great program and there is a lot here, and you're contributing when you show up. I guess the advice is to stick with it. Try to get better. To enjoy it because it's really fun working with the children, if they're not goofing off too much making you feel like a terrible,

Shana: (interjects) NO!

Jaime: a terrible adult.

Shana: That's great advice as well [stated in a sympathetic tone]. Like, the parents want them to get the science content. So if you feel that you need a parent in the room for discipline and order purposes always let staff know.

Jaime: I did have a parent in the room when I was with the 5th graders and it was *very useful*!

Shana: Because the whole dynamic will change!

Jaime: Like, she had the *hands* to help – she helped me a lot.

Shana: That's great.

Jaime: One of the things that was really useful – she helped me to set materials up before and during the lesson.

Shana: Yeah, it's an extra set of hands for different purposes in the space.

Jaime: Yeah, it definitely is.

When asking Jaime, as a first-year volunteer, to share advice for future volunteers she brought up an important point – the assistance that program parents could offer. She presented this point through the idea of the parent's hands, "she had the hands to…help me". Her point, but more specifically her word choice, shaped how I reflected upon black parents' contributions to the program. It was clear that parents' hands constructively supported program operations. I emphasize constructive because literature in the social sciences and education, surrounding urban black parents' ability to contribute to their children's learning has been frequently challenged. From dysfunctional family units to deleterious black mothers, the historical and contemporary literature is rife with negative, at times pathological, constructions (Lawrence-Lightfoot, 1978; Lubeck, 1995; R. K. Payne, 2013). However, these *hands* that could be used for discipline when needed at AISE could simultaneously be tools that built up program practices. With the diverse human capital present at AISE, the most essential component to the program were its inner-city African-American parents. It was their hands, their investment that was central to sustaining programming. Through their hands I will unpack the resources I saw black parents carry across AISE's threshold – rooted in their local human and social capital in Pendergrass.

These Hands: A Parents' Initial Investment

The first resource repeatedly described by program parents that they carried across AISE's front door were themselves, and this manifested through a mindset that they brought to the site. Aaliyah Umi exemplified this idea when stating,

> My daughter, personally, has been attending since 2nd grade and she is in 5th grade now…And I am a working parent. I work Monday through Friday; and I am tired on Saturday morning. But I make it my *business* to get up and take her.

Aaliyah Umi repeatedly came back to this idea – what was her "business" – throughout her interview. She had a clear understanding of her job when it came to her daughter's education –

exposing her to diverse opportunities in the city. In response to what she saw as her "business" she made it a point to become an active program participant. Throughout her interview, she indicated her appreciation for the fact that the program was free. She knew that everyone who worked there was a volunteer and, therefore made an effort not to take the space for granted. She talked a lot about volunteering where needed and advertising in her work and social circles whenever possible. When discussing the value they placed within the program, parents frequently returned to the idea of instilling a particular mindset as a major part of their responsibilities.

> **Sister Faqirah** My first role is to get them here on time. Like, wake them up. Waking them up is not a problem. My kids get up at 6:30 in the morning, regardless, even on Saturday. My kids like to lift your eyelid up and see if you're awake.
>
> **Shana** - Are you serious? (stated comically)
>
> **Sister Faqirah**: I'm like, get out of my room. So waking them up is not a problem, but getting them here on time, and making sure they are, first, in a mindset to receive is my first step.
>
> **Shana** - Yeah
>
> **Sister Faqirah**: Because you don't want to, there are people who are taking time out of their schedules, and things like that, to come and provide this service. So you really want your child to be happy and receptive when they get there. So that is my first step. How they leave the house. How they enter the program. That is the first step. It's the same with school. If they had a horrible morning, they didn't eat breakfast – it doesn't set them up for the mindset to learn.
>
> **Shana** - Yeah
>
> **Sister Faqirah**: So that is the first step. Then to just have them come in to listen, be respectful. Be mindful that they are here for a purpose, that they can have fun, but they are here for a purpose.

Even if program parents elaborated upon other program functions that they played or wished they could play, the conversation on *their role* always began with the mindset that either they or their kids came to the space with. Preparing their children to receive AISE's content, as a central component to doing their part was reminiscent of Drs. Gerardo Lopez and Vanessa A. Vazquez's (2006) work on new Latino immigrant parents and the potential mis-match they and educators

can have towards their parental responsibility in preparing their kids for school. Drs. Lopez and Vazquez found that parents saw their primary role in getting their kids ready to learn was making sure they entered the classroom with the proper mindset to receive a teacher's instruction. This interpretation of parental responsibilities ran in opposition to mainstream school practices that presented "traditional" parental roles as, participating in PTA, attending parent-teacher conferences, and contributing to booster sales. In relation to this project, the community engagement literature's fixation on what university actors contribute negates the centrality of parents (as community members) to maintaining any kind of engagement mission. Community programs, especially OST programs or programs that do not flow from regular school hours and locations, often require the investment of parents. As AISE's kids are no older than 5th graders, parents, guardians, grandparents, and older siblings were required to bring AISE's youth to the site. Scholarly work that excludes parental (or community) voices is missing an opportunity to unpack the various ways that parents are investing in community-based programming. When scholars, consciously or not, reify the centrality of the university side of the partnership to maintain the engagement effort, they further perpetuate this mismatch and in the process misconstrue reality. Parents' understanding their primary role as instilling the proper mindset (as an instance of community voice) though commonly overlooked in the engagement literature, was appreciated at this site.

These Hands: Parental Donations & Local Knowledge

The second type of capital that parents carried could be categorized as in-kind donations. These donations included the more common materials items that would be associated with an educational program. Parents purchased weekly snacks. They held Back to School drives that resulted in invaluable supplies such as, notebooks, folders, pencils, pencil sharpeners, and

crayons. They purchased supplies to support their children's science fair projects. As previously stated they also secured less common items such as, home-goods items to furnace the house. Program parents also used their networks within the community to acquire supplies for group experiments. For example, after hearing about a program-wide dissection planned as a close-of-year event, one longstanding program mother (who was friends with a local butcher) secured goat hearts for the lesson. The majority of the material-based donations secured by parents reflected the strong communication held at times between staff and parents – often veteran staff and veteran parents. Parental investment, that began with the mindset, often produced the opposite of drive-by parents. Mothers, fathers, and grandparents regularly stuck around while their kids were in classes allowing them to not only fraternize, but learn about different slated experiments and curricular needs.

This latter point speaks to the other in-kind donation that AISE received from its parents, their time. Parents, not all parents, but a good portion gave freely of their time on Saturday mornings. Parents usually ended up giving of their time for three reasons. For some, like Aaliyah Umi and Sister Amina they understood that the program was free and wanted to contribute in the ways that they could. Others hung around with younger kids and used the time to catch-up with staff and other parents. Finally, a third group saw little value in leaving for a couple of hours, as one mom put it "I have to come right back" and so she regularly stayed through the program time. Regardless of the motivating factor, every Saturday morning between 4 to 6 mothers and grandmothers (occasionally fathers) hung around in the main first floor front-room while their children met upstairs. Because there was a gathering of hands, they could assist with different program functions and learn about new program needs.

Giving time was the second most often reported response when asked to describe their role. Parents talked about giving time by sitting in classrooms to provide parental support, running errands for the program, assisting their kids with worksheets when they brought them home, talking with their kids about what happened in the day's experiments, and monitoring kids during AISE field trips and community events. Though not all parents had the time and financial means to contribute to the program, staff indicated that parental support was much more of a fixture with AISE's 2nd wave of students. As each child had to be signed in and out, there was regularly an opportunity for each parent, at the very least to briefly chat with each other and staff, and learn a little about what their child was working on. As previously described from a participant observation, for those who stuck around the closing session brought the range of program participants together (including younger siblings of AISE's kids) where parents could learn from the kids what happened in each grade. For other parents their most ideal way to contribute time was through science fair participation.

> **Sister Faqirah**: This year Qizar did a whole lot of design on his board.
>
> **Shana**: His board was awesome!
>
> **Sister Faqirah**: I was really happy. I was really happy. Because he did so much. Like he really, really did so much work. We were here for long hours afterwards [AISE's routine Saturday program] and I really wanted him to have some fun.
>
> **Shana**: Science fair is no joke.
>
> **Sister Faqirah**: It really, it takes a lot of commitment from the student, and the parents, and the volunteers. But it such a good reward. Even when kids don't place. The fact that you made it to the science fair, is enough - because it's a lot. There are kids who start the process but don't finish.
>
> **Shana**: Right.
>
> **Sister Faqirah**: There is so much involved. Like the research process of it. Typing things up. Just the whole, understanding of the scientific process and asking a question, and following it through to see your results.

Dawn and James regularly acknowledged the amount of time and energy science fair preparation placed upon families, in particular parents. Kids worked on entries during the week as well as having one-on-one mentoring with a volunteer on Saturday after AISE's regular program session. Fair participation was a voluntary activity, but one that instilled great pride in families, local communities, and at AISE, as the program often placed in the city's Percy L. Julian Science Fair. Science fair participation, which was a major time commitment, was the main subsidiary program kids and parents participated in. It united them, with a volunteer – and the child at the helm – in a dynamic partnership.

Finally, these hands supported program operations by acting as the main recruiting network and by being a valuable resource for those interested in navigating the city's STEM landscape. Beginning in AISE's second year, program parents became the main source for advertisement. As previously indicated, Sister Amina played a central role in this process, but she was not the only parent who consistently advertised AISE in their various circles in the city. In AISE's first year, James advertised heavily at the Carmichael School to obtain participating children. This was done with the aid of the school's principal. Once AISE received its 2nd wave of students, program parents, and their word of mouth advertisement, were the main recruiting factor. Along with Sister Amina's diligence, program parents repeatedly stated that they either heard about AISE from another parent or saw kids in the program the product of their own advertisement efforts. Though James wanted to bring more area kids (from local public schools) back into AISE, he was not able to make the headway into the schools that came from parents' communication with each other. As was repeatedly stated in parents' interviews "I think word of mouth advertisement is really good because you can hear about the parent and child's specific experiences with the program." Interviewed parents saw this as the most credible form of

advertisement. Through their conversations parents gave AISE credibility that it would never receive from flyering in a local venue (i.e. a school) or receiving a plug from a school administrator (especially with the staff turnover rates in the schools).[71] The power of parental advertisement led to AISE's strong presence in the local Muslim community. AISE events (i.e. the Summer Bazaar and science fair success) were well circulated in the Muslim community attached to the Taealam Academy, specifically through its school website and parent Facebook page. AISE's reputation preceded it within *this* community; it was program parents who made AISE credible and helped other parents to feel comfortable crossing its threshold on Saturday mornings.

Along with their consistent presence at AISE, supporting its kids and program operations, parents were also quite knowledgeable about STEM opportunities available within the larger city. Program parents created their own network, sharing information about different summer and afterschool opportunities they had heard of or their own children had participated in. Through interviews these parents introduced me to city resources such as, NSBE's SEEK program[72], Franklin Institute's PACTS program[73], and the Carnegie Mellon Institute's C-Mites. Still other city opportunities that parents participated in such as, the Philadelphia Science Festival, Mighty Writers, and soccer at Worcester Park may not have all been science-related, but illustrated parents' investment in seeking out opportunities for their kids. In an effort to support parents' networking efforts, following the conclusion of a spring semester interview with Khadijah Azer, I took it upon myself to put Wanda Baker in touch with her as she had introduced

[71] Every interviewed parent heard about AISE through word of mouth advertisement. After communication from other parents, the second most common form was from clergy on a Baptist pulpit that was a "sister" church to the Baptist church that housed AISE.
[72] The National Society of Black Engineers Summer Engineering Experiences for Kids
[73] Partnership for Achieving Careers in Technology and Science

me to a new city program, the SEEK program. I knew that Ms. Baker, as was common with most program parents, was looking for opportunities for her daughter following her graduation from AISE. When Ms. Baker indicated her interest in PACTS robotics unit Sister Amina chimed in and shared her son's experiences with the program. In a fieldnote I relayed Sister Amina's presentation of the program and her implicit advice as a program parent.

> Sister Amina stated that many parents had issue with the organization and the lack of materials. The Franklin Institute, she stated, constructed their community initiative (PACTS program) as if it took place through three programs that operated in some sort of tandem. However, in reality two of them do more than the third, which is the robotics program. Sister Amina talked about having difficulties finding the site and that Aman's robot was taken apart (others wanted the parts) when he was absent for a single week. She did not think much of the program. She also spoke to the idea that kids have a better chance of getting in at certain grades (7^{th} and 9^{th}) and that they [Aman's parents] felt it was smart to wait until 9^{th} grade for him to re-enroll in another facet of the PACTS program.

Outside of the friendship bonds that parents entered AISE with (which often fell along religious lines) they less regularly had impactful discussions across the entire program, as they did in the above fieldnote. In reality, this meant that many of the program parents shared strong relationships (as most were Muslim moms), but rich communication (rather than exchanges in passing) across religious lines were less frequent. This exchange only occurred because I conducted Khadijah Azer's interview in the main front-room of the program. This was done by her behest.[74] She was fine with our location (probably more than I was) and we proceeded. However, because the interview took place in a public place I was able to intentionally put the mom's in contact. Creating opportunities for parents to increase opportunities for rich, more thoughtful exchanges, beyond the bonds they entered the site with, would have been nice. I know that Wanda Baker appreciated the insights she gained from this exchange and stated that she

[74] The interview was scheduled beforehand and she preselected the location, so it came as no surprise. Before beginning an interview, I always checked-in with the interviewee allowing them to select the location. In this instance, seeing if she wanted to move to a more private location.

would look into the program further before enrolling her daughter. Though I would have liked increased communication amongst all program parents, this instance still illustrated the impact of parents as a valuable program resource, utilizing word of mouth advertisement, to relay parental and student experiences in city programming.

These Hands: Parental Buy-in as an Indicator of Success

From my first trip, parents' investment in AISE's program was made just as paramount by program staff as securing consistent university volunteers. As conversations on funding, potential for replication, and measuring programmatic success were topics that came up with staff – the value that parents and youth saw in the program was always of central import when assessing the program's worth. James stated that he measured program success by the sheer fact that students "keep coming back" and that they do so without material incentives, "we don't give them anything – we don't give them iPods or things like that". Dawn elaborated upon this point, breaking it down into 4 points. For Dawn, program success was understood as,

> First, it's *the students returning*. A lot of times they give students stipends to come to these kinds of programs. The fact that they come back without pay shows that they are getting more out of the program. Second, is *student engagement*. When they're talking to you, you can grasp their understanding of what they're talking about – and they're excited. Third, it's *the parents*. Parents being excited about the program gauges program success for me. I mean, if a parent doesn't want to get up in the morning and bring their children then **[**Shana (interjects): Its 9 o'clock on a Saturday**]**, it's not going to happen…If a parent is willing to come on Saturdays, then that determines the success of the program. Because it means that the parent sees the program as worthwhile for their child. Fourth, the fact that we have *volunteers* that continuously come back. I mean, if you had no one to run it then the program would fall apart. The fact that they want to come back shows that the program is good.

James and Dawn's excerpts illustrated that buy-in had to come from multiple sources – that extended beyond the university. In Dawn's assessment the first layer of program validation came from the kids, because a parent pushing them to attend will only go so far. A parent's behest will not lead to her second point, witnessing student engagement. However, Dawn made clear that

parents were not understood as coming to the program, hat-in-hand, ready to take whatever was offered to them. They had to be sold as well. Dawn illustrated that they too had expectations that needed to be met. Kids, volunteers, *and* parents gave AISE their individual seals of approval by continuously showing up week after week, year after year. As this section showcased, parents' approval was regularly given through the ample resources they provided to support programming. Their personal and communal networks were vast, and their gifts were not only welcomed, but paramount for AISE's continued operation.

Creating Place: The University that Entered

Shana: Yeah. Has that been an issue with putting Frankfield's – like, what, what *Frankfield* knows about you guys?

Dawn: The Frankfield Chemistry Department knows about us now because they helped sponsor one of the units, which is great. Uuumm, I think there are some people in the Biology Department and the Immunology Department that know about us. But as far as *know, know* – like no one truly knows except the grad students.

Shana: Okay.

Dawn: And as far as

Shana: (interjects) [name of Frankfield University president] doesn't know?

Dawn: Uh? [Frankfield president] does not know.

Shana: Is that bad? Is it good, bad?

Dawn: I feel like its good right now. I don't want her to know. I kind of feel like she would be like 'Okay, whatever. They're doing that little small thing with just a few kids.'

Shana: Is it an issue to use the logo and stuff, or does it not matter?

Dawn: If it's something like IAFA, its fine. Well first of all, BGP, the president, not the president – the dean at BGP. Like they know what IAFA does. They know about the program. So, they definitely know that we use it.

Shana: What's BGP?

Dawn: Oh, Bio-Medicine Graduate Programs.

In this exchange, Dawn referred to the type of university that was both aware of the work conducted at AISE as well as the population that commonly exited Melvin and entered the house in Pendergrass for weekly programming. The university that entered was not crossing AISE's threshold through any university-wide or bureaucratic capacity such as a university grant or a "revitalization" initiative. There were no press releases, related news articles, or multi-year strategic plans. The population also did not stem from the more common channels featured in the engagement literature – an office of community engagement, an urban research center, faculty-led research, or an undergraduate course. As Dawn stated, very few units on the university campus where aware of the work completed in the AISE house; with the thrust of those in-the-know being graduate students. The university personnel that left the Melvin bubble, traversed the local segregated terrain, commonly crossing boundaries that existed along the lines of race, education, and income. These individuals routinely traveled no more than 10 city blocks to get from campus to AISE; with some traveling only 3 or 4 blocks from their apartments to enter the AISE house. Even in the latter case, breaks in the landscape – entering and exiting distinct zones – were present. The movement, of university personnel from Melvin and Pendergrass, consisted of one staff member (a local resident) and what Lamar called *Frankfield products*.

> **Lamar**: I think a program like this is very different. It's not an instance of the university coming to critique the schools or local community.
>
> **Shana**: A new image?
>
> **Lamar**: Yeah. It's a new image for Frankfield (last word said slowly, like he's thinking). But even though its (paused) Frankfield associated, it's not
>
> **Shana**: (hard interjection) When you, do you think they think it's Frankfield? Family and community – like when you come in are you Lamar, Frankfield representative? Or L, like, how do you think you're perceived?
>
> **Lamar**: I think you're perceived as – I don't think I'd necessarily. Hhmm (thinking, starting and stopping) I think you have to separate Frankfield representative from Frankfield product.
>
> **Shana**: Okay

> **Lamar**: I think that you, I don't think that they [program parents] think you represent Frankfield in the sense that you represent the institution. But I think that you represent a product of the uni, the institution. I think that they [program parents] can relate to you a bit more because you have come from backgrounds that aren't that different. So I think in that way the parents can relate. I think the kids are like (makes a hand-waving gesture)
>
> **Shana**: Whatever?
>
> **Lamar**: Whatever.
>
> **Unison**: both laugh
>
> **Lamar**: I think the parents can relate for that reason. The kids are like, whatever. So, I think in that sense the parents see you as a Frankfield product. I think the parents see you as, *what your kid could be like if they went to Frankfield*. (shy laughter with last clause).

What Lamar constructed as Frankfield products, I refer to as an instance of *backdoor Frankfield capital*. Rather than the typical university personnel who leave campuses to engage in partnership work – backdoor capital comes from less official channels. These are channels that I argue have the potential to increase equitable engagement practices and community participants' voices because the "university" present in the partnership is entering the work with less interest in guiding the initiative along professional and personal lines.

The main *backdoor capital* that exited Melvin were graduate students and they left commonly carrying two assets on their person. They entered the Pendergrass house on Alder St. with (a) expertise rooted in their postsecondary educations and (b) their sociocultural identities, which most readily surfaced through their affiliation with mission-oriented student groups on campus. The former gave them the content knowledge and general comfort to engage in experimentation with the program youth, and the latter access to organizational structures that helped build-up the program. The potential of graduate students, as rich, well connected university resource is lost in the literature. Going into year two, the university side of the AISE partnership transitioned from James and a collection of students (mostly black) from two research labs, to organizing through IAFA and to a lesser extent the Woodard Society. At that

time, AISE's ability to utilize this commonly untapped campus resource grew exponentially. For example, through their graduate student volunteers, program staff[75] received a prime location to advertise through, access to discretionary student funds, and the ability to be written into IAFA's outreach objectives. Through graduate students, AISE was able to reap the benefit of university resources that could further sustain programming. This was also the origins of AISE as an actual university-community partnership. Central to this increase in university personnel, AISE was able to enact one of the four points from its "official" mission – connecting area youth to scientists of color. As the AISE's student-body grew, the program needed an outlet that would help it attract graduate students of color to volunteer within the program. As the literature on graduate students' participation in engaged work is sparse, the experiences of students of color (specifically black students) is even rarer. In this OST program, graduate students were a main form of university capital present at AISE – a central vertebrae to the program's backbone. From AISE's outset, program staff were tapping a unique resource. The usage of graduate students, specifically because of what they carried, was vital. Though word of mouth advertisement altered the dominance of graduate students of colors' presence overtime (discussed in the next chapter) – graduate students, as a unit, were always an essential instance of backdoor capital.

In terms of volume, graduate students were the largest resource to leave the university campus, but they were not the only formative instance of backdoor capital. As James Gentry's cache was located on both sides of the partnership, he was a keen cultural broker ushering students into an unknown part of the city (crossing 25th Street) as well as coordinating with community personnel. A primary instance of his university capital was his scientific knowledge. It allowed him, when constructing AISE's curriculum, to move beyond the confines of scripted

[75] At this point, the beginning of year 1, staff consisted of James Gentry, founding volunteers, and auxiliary support staff. The latter were retired teachers and one district curriculum coordinator.

curriculum packages and manipulate diverse (even "outdated") resources to fit the program's needs. Following my initial tour of the AISE house I reflected upon the resources I saw in an individual classroom within a fieldnote. The following excerpt took place during the spring module, as I moved from the 3rd to 4th grade rooms.[76]

> Each classroom is a former bedroom, as this space was once a house. **[***This is an older home. I would guess around, if not older than, 100 years. One bedroom has a fireplace and small closets. Another has built-in storage units and chunky wood-framed windows and doors. All are signs of an older/historic home. This house has the old-world characteristics so desired on shows like "House Hunters".***]** The third-grade room has a table in the middle with about 6 chairs around it. The wall to the left has a fireplace, and the wall opposite the front door has a bay window, the wall to the left has science-related posters noting components of former experiments. The wall with the door has information regarding the scientific method. James continued to tell me about the program as we moved through this space. The next room was the fourth graders' room. It is smaller in size. James said they have less fourth graders. This room also has science related material throughout the room. On the table where Styrofoam plates, about six magnifying glasses, and three to four short round jars with some type of material inside of them sitting in a liquid substance.

Walking through the different classrooms, and seeing the various materials, led to the below conversation in the 4th grade room.

> **Shana**: Where did there, uumm, materials come from?
>
> **James**: So, I get a lot of this stuff? So, the materials – I beg and plead. These magnifying glasses (pointing to a group of them on the table)
>
> **Shana**: Yeah.
>
> **James**: A teacher, they were tossing them out at her school and she gave them to me.
>
> **Shana**: Really?!?!
>
> **James**: She gave me a *case* of them; of magnifying glasses. Some of the stuff I purchased from Caroline Biologicals, *mostly* (thinking aloud, when stating last word). And then there was the Science Center for Future Teachers, there *is* the Science Center for Future Teachers at Frankfield. And the lady that runs that - she used to run a program, or run something *like this* in the schools.
>
> **Shana**: Oh, okay. Wow.
>
> **James**: Like 25 years ago, or something like that. So she had a lot of stuff in the basement locked away. I begged and pleaded and she *loaned* it to me. She was *loaning* it to me as I needed it.

[76] In my fieldnotes I differentiate between descriptive and reflective commentary by bracketing and italicizing the latter.

His scientific knowledge allowed him to initially build a curriculum, with Dawn and education personnel from the city, and guide its evolution overtime. The knowledge that James carried allowed the program to operate from an annual budget of less than $800.00, with the bulk of those funds used to purchase perishable items needed for weekly experiments. James' expertise meant that the program was not rooted around expensive scripted curriculum packages. He could build upon shared scientific knowledge with those in his local networks and fill-in resources such as, magnifying glasses when able. Human capital was a key university asset. However, the potential of this backdoor capital was not limited to only the person and what they carried. It also led to physical resources, detached from the individual, but rooted in their movement on campus.

Creating Place: Human Capital transforms to Physical Capital

As backdoor capital, both James and graduate students turning their human capital into physical resources allowed them to obtain valuable materials from departmental units on campus. Dawn commented on the value of having a program director who has "connections throughout the community and who is also a scientist." As a scientist moving on the Frankfield campus, James used both referrals and cold calls to obtain essential program materials such as, rock kits (3rd grade, winter module) from an earth science group as well as students and materials from the Department of Environmental Sciences. The latter as Dawn stated was essential for the 4th grade fall module on water and landforms.

> We've gotten students from environmental sciences and the kids really loved them. There was this one student, one guy, who is in earth science. He is a sedimentologist. And so the kids had a whole section in fourth grade when it came to that, and we didn't have any expertise because we're mostly biologists. But he fulfilled that niche that we needed.

As Dawn indicated through her usages of "we", the overwhelming majority of the volunteers at AISE were graduate students pursuing degrees in the biological and biomedical sciences (with the second most popular "major field" being chemistry). As AISE advertised through IAFA (and

later the Woodard Society), it made sense that the majority of the volunteers they received came from these fields. On the national level this trend also holds, as these areas of the natural sciences include the majority of U.S domestic minority doctoral degree recipients (Corlies, Gore, & Hamel, 2018).[77] When AISE volunteers advertised through word of mouth advertisement, their voices tended to remain within these two scientific branches. These were the circles their studies moved them in, and therefore their main spheres of influence. In this way, the program's reach on the university campus (and the type of STEM work they could engage in) was circumscribed by trends in graduate students' matriculation in higher education. James' ability, and credibility, to connect the program outside of these fields was essential for AISE's growth. While interviewing him during my 3rd trip we discussed him reaching out to the Physics Department, cold calling via email, to gain resources for the program. He had the capital and confidence to plug the program in this way, and be taken seriously by departmental administrators, students, and faculty on the other end of his messages.

Like James, AISE's graduate students also brought external physical resources into the program through principal investigator (PI) grants. A primary example took place between a lab in the Chemistry Department and a graduate student familiar with AISE's programming in that lab. The student, Luna Pedros, was able to advocate for AISE in this way because she had a literal seat at the table during her PI's lab meetings. When the conversation moved to the outreach component within her PI's grant she introduced AISE. James recalled the initial interaction, within an interview when stating, "She just happened to be talking to the person and they said 'oh yeah, we have this community money to get rid of. Anybody know anything?' Others such as, Dawn and Carla filled in more of the holes in James' casual interpretation of the

[77] These national trends hold for the timeframe in which I collected my research data.

encounter. They indicated that the initial conversation took place during a lab meeting. Luna Pedros, a Latina within the Chemistry Department was able to offer AISE as a vehicle to funnel the outreach dollars into. Through AISE, Luna's PI was able to fulfill an outreach component, required of their research grant. Ultimately, the outreach support that AISE received resulted in materials, money, and most importantly manpower for the 4th and 5th grade fall modules (pictures of the 5th grade fall and spring modules are available in Figure 2). By my 3rd trip this relationship with Luna's PI was well-established and the program was able to go on and obtain white boards for all of the classrooms from the same PI.

During graduate student interviews, this relationship between AISE and how PI grant dollars were being used, resulted in some feeling that it did not align with how institutes such as, the National Science Foundation intended for the outreach dollars to be used. That the intent was for the actual PIs themselves to engage in community outreach. In AISE's case, how the resources came into this community program, specifically as manpower and curriculum development, allowed staff to more easily manipulate the resources to their needs. The PI's outreach dollars became university resources (physical and human) that entered the space with no set agenda. Through graduate students, in this case acting as representatives for their PI and lab, the program received physical resources as well as engaged volunteers who self-selected to participate. One interviewee, first-year volunteer Jaime Schmitt, shared mixed feelings on this arrangement, but concluded that the PI operating in this capacity worked towards AISE's betterment.

> **Shana**: Yeah, so James was saying that a lot of scientists don't know
>
> **Jaime**: (interjects) How to do it.
>
> **Shana**: Yeah, how to give the money. Where to go. Who to give it to. They are not connected with the community. So then, in that case for Luna's PI.

Jaime: (interjects) That's cool, so it worked out for AISE.

Shana: Yeah. (laughs)

[40 second break in transcript content]

Jaime: They [PIs] don't really have the time to spend. I can't think of a PI, (pauses quickly to reflect internally) well the PI I used to work with back at the University of Maryland she did actually contribute some time, but it was to the school that her *children* went to. And they are not in an inner-city school. They are in a really decent suburban school where everyone is doing great and stuff. So yeah, the PIs, it's probably not on their radar as much. And it's probably up to us to say, 'hey, I live down the road from this school

Shana: (interjects) I can do it.

Jaime: I can help out the children'.

As Jaime indicated her former PI engaged directly in outreach, but did so within a community that was familiar to her. It was a community that was a part of her every-day lived experience, not a community necessarily in need of her expertise. Rather than Luna's PI bringing these outreach dollars into a location apart of their immediate world, a graduate student of color was able to funnel the resources across city borders into a context that her PI was much less familiar with. A context, in this case Pendergrass, that they probably would not have found on their own.

Not all attempts to procure and maintain resources from university outlets were successful. James shared an experience with the Frankfield College of Education that illustrated the potential for riffs when crossing borders on the university campus.

James: She [director of the Science Center for Future Teachers] was *loaning* it to me as I needed it, but then the powers that be, said they needed it for something else. And they're really not! (stated with a humorous tone) But anyway – I'm sorry. (He laughs very loudly) Turn your recorder off. Turn your recorder off.

Shana: (I laugh loudly) So they took it back?

James: So, they took it back! But, so here is the thing, check it out!

Shana: (interjects) That's messed up.

James: She calls me, she calls me – well she was loaning it to me, right?

Shana: Yeah

James: I take fall stuff and take her back the spring stuff, and so forth. So, we did that the first two years. And so then, she was telling me that she had to get rid of it. She had to clear up the space. The College of Education wanted the stuff, dah dah dah. So, the College of Education wanted the stuff so they could give it to a teacher every now and then if they needed it, or whatever. It was really (slight pause) I don't, I don't know what it was. So we have, we have 4, 6 kits. So there are like 3 kits per session. I have 4 or 6 kits. So, I sent them an email saying, 'We have your stuff. Let me know when you want me to return it. We just want to borrow it.' And I'm off the grid. I am off the radar, which is fine with me! Because they have not asked for the kits, or anything like that. So, I'm just sort of laying low.

Shana: Really?

James: I am going to hold on to them.

Shana: Are you able to go back to get new stuff?

James: No. We can't, can't access it.

Shana: So, the science program, itself is gone?

James: No, no. So, the Science Center for Future Teachers is a program for high school teachers.

Shana: Oh! So this is just something that she had.

James: (interjects) This was something that she had left over from a program she had done like 10 years (slight pause) prior. And it was sitting in storage. And every now and then if somebody who was doing elementary education or somebody who was doing their masters in science education, or whatever – they might pull out some of these pieces to do an exercise.

Shana: Yeah. So, they're just keeping it for

James: (interjects) So now,

Shana: (interjects) like spare

James: (interjects) yeah, like spare pieces. But the thing that's killing me though, the stuff that she gave me is the *old* stuff. So why

Shana: (interjects) It wouldn't even be relevant for today.

James: Yeah. So, that part kind of annoyed me. In that, we were using the stuff. It was old, the stuff was outdated. *We* can make use of it. But for them why are they going to use outdated materials for their program?

Shana: Yeah

James: I am, I was a little annoyed. I think the piece was that it was just power-plays. She was just trying to do her thing and she is *not* in the College of Education. And I think the College of Education was sort of, wielding their power over the whole situation. Because they are not even using the stuff. So, but anyways; its politics. So we have acquired some of that stuff.

James took the episode to be a power-play by the College of Education. Though the resources he utilized where neither the property of the College or the Science Center for Future Teachers, they belonged to the woman employed by the Center, the College was still able to determine their use. We questioned whether the materials that James regarded as outdated for a current teacher-in-training, would even be utilized. He made clear, that they were materials that "we" can use. His usage of "we" I root in AISE staff and volunteers' scientific expertise; that they could manipulate them, making them relevant for contemporary lessons. James went on to state that they would have to make arrangements for the following year to make up for kits they no longer had access to. By my 3rd trip, all seemed well and the materials (or curriculum) had been appropriately modified. The ability to maneuver on campus, traversing institutional boundaries, to continuously bring materials into this inner-city program was at times met with obstacles, as James stated, "power-plays" and "politics" were always a real possibility.

The ability to turn human capital into physical capital was vital for the maintenance of AISE's programming, and illustrated the rich campus networks tapped to constructs the *university side* of this partnership. Yes, a single staff member and university students sat at its helm, but unpacking the reach of their networks is central. Their *arms* extended well beyond their literal person into departments, centers, and pots of money that exemplified their campus cache. For example, James' reach – bringing resources from the physical sciences into the program – diversified programming and allowed AISE to embody more components of the STEM moniker. Throughout my time in Philadelphia, AISE's programming was most readily personified by the "S" and "M" of the moniker, but the "E" (and to a lesser extent the "T") were present. The inclusion of any technology or engineering programming was the product of James' reach on campus. AISE's graduate students' areas of study (and therefore the expertise they most

readily carried) were not definitive factors shaping program curriculum. Ultimately, the fullness of AISE's programming, from the university side of this partnership, was necessitated by campus border-crossing. This was a process that illustrated the potential of graduate students and a staff member's reach as well as the power of institutional politics. Program staff and volunteers were able to pull physical resources in ways that may seem surprising, or outside of their perceived wheel of campus influence. The ability to transform themselves into viable physical resources helped AISE's leadership to enact a program on their own terms. Though institutional walls potentially hampering the flow of physical resources into inner-city programming is ever present, and occurred with this program, the transformative ability of *backdoor capital* should not be lost.

Creating Place: Human Capital → Physical Capital → Leadership Opportunities

Backdoor capital, not only led to human capital and physical resources traversing the Melvin bubble and coming into this Pendergrass neighborhood, but also resulted in administrative roles being completed by volunteers and volunteers-turned-staff members. As Dawn stated, when she began at AISE she wanted her participation to include curriculum development opportunities. Though other volunteers did not set out with Dawn's intention of becoming a program administrator, circumstances still resulted in then evolving into strong administrative assets. As a student organization with an established executive board it was easier for the IAFA to take on programmatic duties for AISE. The organization's outreach chair coordinated the volunteers' rotating schedules and disseminated to volunteers their weekly lesson plans. As a student organization more familiar with marketing strategies their e-board members also helped to construct AISE's revamped website and Facebook page. During my time at AISE, I witnessed volunteers who came from IAFA and ultimately transitioned to various leadership roles at AISE. These included: executive director, program coordinators, and science

fair project mentors (working with an individual child and their parents). IAFA allowed AISE volunteers to transfer many valuable skills that they employed in the student organization to the maintenance of this community program.

Individual students' leadership roles also ended up in them (re)designing curriculum units in response to their scientific training. Luna, spearheading her PI's outreach initiative, resulted in a collection of graduate students revamping the fall 5th grade spring module (a chemistry unit). As previously stated, this PI's grant brought many assets into the program, but a major one was a redesigned curriculum. The curriculum unit included 6 lesson plans (approved by program staff), all of the necessary materials to enact the designed experiments, and volunteer instructors to lead the unit. The previously mentioned sedimentologist, Mr. Marlon, was a long-term volunteer who used his advanced training to construct the 4th grade fall module on landforms. He also coordinated a fieldtrip to his lab that had two main objectives. First, it allowed students to see actual research being completed in an area they just finished studying and, secondly, to reinforce new concepts from their Saturday lessons. Mr. Marlon was also instrumental during year-end fieldtrips to Cobbs Creek, where he led discussions on creek land formations and erosion (photos from the 4th grade fall module are available in Figure 1). Finally Dawn and Zaineb Comber redesigned the 5th grade spring module, transforming it from a unit on habitats to one on cell biology – specifically genetics. Through this module AISE's staff intended to bring all of the grades' spring lessons full-circle by exploring life forms on the cellular level. The revised unit not only required a new 6-week curriculum, but also materials to cross-breed specimen. The latter necessitated access to fruit flies (for breeding), an anesthetizing agent (i.e. FlyNap), high-resolution magnifying glasses, and a place to house the flies in-between Saturday sessions. All of the physical resources used in the module came from Zaineb's lab (she was a post-doc at the

Children's Hospital for Philadelphia) and Lydia Wilson's (first-year volunteer) lab. The research conducted in both students' labs was predicated upon the usage of fruit flies. Zaineb, Dawn, and Lydia also led the spring module lessons.

As a university member, I too, brought administrative roles to the program that resulted in their own type of backdoor capital. First, as a result of my research interviews I had more rare one-on-one interactions with many program participants. These sessions allowed me to unearth many resources, experiences, and skill-sets that program members had (often unbeknownst to staff) that could further support programming. For example, I was able to share with program staff (with the interviewee's approval) more of the physical resources and campus connections graduate students had on Frankfield's campus that could support programming. These often regarded graduate students' areas of expertise and access to specimens for lessons. Outside of my primary identity as researcher, I fulfilled an array of administrative roles including creating pre- and post-assessment tools to help staff begin to construct quantifiable data regarding students learning. Though I did not come from the Melvin bubble, I too began my journey at AISE as a university outsider. I did not traverse the same geographic landscape to come to AISE as the program's volunteer graduate students, but I still had to maneuver divergent terrains and gain educational expertise to be granted access into this site.

Reciprocity: Assets Going Back to Local Institutions and People

In the literature on community engagement, unpacking the resources that "enter" a place – from various locales – to support programming is vital, and commonly presented. However, this examination, as previously stated, often focuses on the university resources that move through these partnerships. Along with cataloguing resources, scholar Tami L. Moore argues that a major intervention into the field (and practice) is recognizing the need for reciprocity within

engagement. For these initiatives to be more dynamic, she argues that they must go beyond one-way exchanges; commonly understood as university resources moving out to community settings (the one-way exchange is never understood as possibly occurring in the other direction). This is commonly described as an outreach model. Moore argues that community engagement, in this instance educational programming, should focus on engagement as a process, predicated upon a 2-way knowledge transfer. Where "knowledge" in my estimation moves beyond academic gains[78] (the latter a more traditional sense of the term, one that Moore deploys) to include capital and material resources that are reflective of the specific community or university actors. The instances of reciprocal engagement addressed below were not facets consciously built into AISE's initial framing. Some of them were always present at AISE's origins while others were byproducts of continued interactions over time, as diverse actors came together to construct the program.

Two-Way Knowledge Transfer: Assets Back to Community Partners

Through interviews and observations parents relayed two main benefits of participation, which extended back to either their families or themselves. As program parents, the main asset that they discussed going back to their families was access to the educational outlet itself. As noted in the first findings chapter, parents held varying views on how the opportunity that their children received connected to their public schooling. Access to programming was a unique asset that they appreciated. When reflecting upon how the program benefited their children, parents also discussed the importance of access to area "scientists" as something distinctive given to their children through the program. Sister Sultana, the parent of a 5th grader who was attending

[78] For example, the continued reception of scholarly grants, publications, and advancements of epistemological understandings in a given academic fields.

AISE for the first year, relayed a commonly shared idea regarding the exceptionalism of their children's experience.[79]

> Even just to have an opportunity to work with a professor from Frankfield University and students from Frankfield University that's awesome. Nobody, like only in elite schools, some people just are not experiencing stuff like this.

Though the labels attached to James and the volunteers varied. The volunteers were frequently presented by parents and kids as scientists (James perpetuated this image from AISE's origin), but they were also seen as students, or specifically Frankfield students. However, beyond the label, it was the advanced education and lab experience that the parents were excited about. As scientists or graduate students they represented something unique that their kids were able to experience. Parents repeatedly spoke to the rarity of this type of access for local elementary-aged students. Though parents and students commonly referred to James, as Reverend Gentry or Reverend James, in response to one of his community roles, here an image from the university surfaces. He is presented as a professor, harnessing the same reverence as the graduate students.

Along with the exceptional assets parents felt their children received, through my observations I witnessed how program parents also co-constructed a gathering space for themselves through AISE's front-room. Through the program, parents received an opportunity to decompress and socialize with other parents (again this opportunity did not extend across all program parents). Parents could gather, often as moms, and converse while their kids were upstairs in class. AISE created downtime and a location for parents to connect on their own terms, not so much engaging in community building, but in community sustainability (as these moms knew each other from other spaces). They gained an opportunity to check-in with each

[79] Sultan's mother stated during her interview that she pulled her son out of another community activity to place him in AISE during his 5th grade year. She was aware that the program concluded at 5th grade and wanted her child to experience at least one year in the program because she saw it as a valuable experience that she did not want him to lose out on.

other, over conversations regarding their kids, grocery shopping, science opportunities in the city, meal prep, and the science fair. Through talking, laughter, and cradling their own and each other's kids they created a separate space for themselves while their kids co-created learning spaces upstairs.

Two-Way Knowledge Transfer: Assets Back to University

University personnel's experiences at AISE corresponded with four main university benefits. These were experienced by either students or faculty. As stated, AISE participation gave volunteers an opportunity to gain leadership experience with educational programming that they would not otherwise receive. This consisted of opportunities for curriculum design, program coordinating, and instruction. Some graduate students looked for these opportunities and for others, the opportunities fell into their lap. As this was an educational program the opportunity to teach was an experience that all who volunteered looked to experience. A shortage in teaching opportunities on the university campus came up in a few graduate student interviews. I got the sense from them, in particular Martin Rizzo, Celina Santos, and Serena Gordon, that teaching assistant positions (even grader positions) were difficult to come by on Frankfield's campus in the natural sciences. As students were commonly being groomed to engage in research (though the majority ended up in some form of industry) teaching experiences were not a part of the training process. Though working with AISE's kids was not the target population the volunteers would meet teaching on a college campus, graduate students still saw AISE as an opportunity to gain experiences with classroom and time management, co-teaching, lesson plans,

communicating science content (with kids and other volunteers), and engaging with an audience.[80]

Along with leadership opportunities, most regularly experienced through teaching, IAFA students were also given an opportunity to engage in community building.

> **Lamar**: We're together all of the time. We work together. We're kind of, like I said before – one of the reasons IAFA was created was to help minority graduate students. So I think in one sense participating in AISE, participating in this program was a way for IAFA members to get involved in the community. But also I think it served a deeper purpose of giving us another venue to interact with one another.
>
> **Shana**: Okay
>
> **Lamar**: And to try to get to know each other a little better. Because I think when you, even going through first, first of all, there are quite a few IAFA people, so even if you know people in your year you may not know people who are younger or older than you as well.
>
> **Shana**: Okay
>
> **Lamar**: So, it's kind of good to be in a classroom with them and see how they interact with kids. And in the process of doing that you invariably end up talking about yourself, and what you do, and who you are. Kind of get to learn a little bit more about the other IAFA members which I think contributes to creating a community here at Frankfield which helps the students as well – the IAFA members.

In this instance, AISE gave IAFA members (the original and most long-lasting volunteer network) an opportunity to bond as individuals outside of their given year, specific program, and research labs. Over the years, even as IAFA volunteers were met by new volunteers (often white women) this theme, AISE as an opportunity to decompress from their academic lives, remained. Carla spoke to this idea, when asked to describe how she benefited from her continued AISE participation.

> For me personally I needed that outlet. I needed it, it gives me a chance to socialize with my peers. I talk with all of the volunteers. And it gives me the opportunity to talk to people who are not in my lab. And *not* working on HIV. And *not* working on immunology. And talk about other things, like 'What did you do this weekend'? Like, 'what movie is coming out? Let's go see it'. That type of thing. It gave me that social outlet that I was lacking, in lab. So, I like that.

[80] Examining the volunteers as teachers will be discussed in greater detail in the next chapter.

As bench researchers, their continued employment was not contingent upon a semester to semester contract (more common in the social sciences and humanities). After completing coursework students selected a research lab that would cement their thesis research and continued trajectory at the university. Bench research became a large part of their identity on campus and took on the shape of a traditional 9-5 job. In response, to this working relationship students could find a great deal of their time, weekdays and weekends, spent in the lab. The meat of their theses were predicated upon producing two publications, which came from their lab results. As their specific lab work was intertwined with other students, research staff, and faculty in the lab, this intermingling of research also reinforced a cultural expectation to invest ample time in your project. Therefore, finding opportunities to remove oneself from this space could be difficult, but as students stated AISE became one outlet that allowed them to move outside of this identity.

University outlets also benefited from participation with AISE. As Dawn stated IAFA's participation in AISE allowed it to fulfill one of its organizational missions. Along with creating a home-base on campus for students of color in the biological sciences, IAFA's outreach objectives were an integral part of the organization's overall intent. Through AISE, IAFA's board could clearly signal to this component of their mission, especially when constructing year-end reports that addressed their utility on campus an in the community. AISE participation allowing IAFA to fulfill this function, which operated in the same way as the previously mentioned PI who was able to complete a necessary grant requirement. The PI's continued grant procurement was only aided by the addition of a strong outreach track record. Though this may have been a minor component to the overall grant application, from talking with James I learned that many of the grants that PI's commonly applied to for funding were leaning towards this

requirement. University outlets – a student group and at least one PI – were able to directly benefit from their relationship with AISE.

Unpacking the resources that "enter" this space reworks common perceptions of community engagement initiatives by more explicitly addressing what's brought to the table. First, the university assets present at AISE exited the Melvin Bubble with less strings attached than the typical entities that leave a university campus in community engagement work. The human materials – staff member and students – came with great expertise and institutional cache. However, because of what I call their *backdoor* status, an opportunity is created for them to become more malleable to equitable engagement, community desires, and the will of staff members (who consisted of university and community actors). Unpacking the resources that community members brought to the program contributes to scholars' work illustrating the value of community partners, specifically black parents, in engagement efforts (Y. Anyon & Fernandez, 2007; Evans, Taylor, Dunlap, & Miller, 2009; Yamamura & Koth, 2018). Finally, as assets moved back and forth between university and community outlets (engaging in two-way knowledge transfer) these actors and resources illustrated the centrality of interest convergence in the production of this place. For parents and kids (as community members) and university outlets (student group and faculty) AISE created a viable "win-win" that supported continued investment. As AISE staff had limited financial and material resources to run the program they were able to capitalize on these divergent needs. Through AISE diverse interests were met, where different entities were able to collectively benefit from AISE's enactment. First and foremost, for staff its program youth benefited. However, through consciously and unconsciously orchestrated alliances disparate collectives gained as well, ultimately allowing AISE's staff to live-out programmatic missions.

Once We've Entered: Operating on Lavish Shoestrings

Once all have "entered," the work of existing began. In this process, Saturday after Saturday, module after module, AISE continued. As a community program the successes were clear: the ability to operate free of charge, mobilizing diverse resources, bringing new learning opportunities to kids, and showcasing that learning in public venues such as, the city's Percy L. Julian Science Fair and AISE's Science Bazaar. Ultimately, AISE became a place where people came back to and created both collective and personal meaning out of their participation. Along with these successes, achieving programmatic sustainability was a challenge. The most formidable obstacle being the fact that the program operated on a 100% volunteer force.

> **Dawn**: Those would be – oh, and acquire a grant for a person who can actually, you know, pull everything together.
>
> **Shana**: Yeah
>
> **Dawn**: The issue with this program, the best thing about this program is that it's all volunteer hours. The most challenging part of this, is that it's all volunteer hours. Everyone has a full-time job. And not just, not just like the *easy* full-time job.
>
> **Shana**: (laughs)
>
> **Dawn**: The full-time jobs that are really like 50 hours a week.
>
> **Shana**: Yeah
>
> **Dawn**: Plus, someone who has like 3 jobs, like James. He is a pastor, works at Frankfield, you know.

Staff (and to a lesser extent parents and volunteers) who thought about AISE's longevity referred to this reality as a double-edged sword. They understood the context that the program operated in. It was commonly presented by staff, as Dawn stated, as one of AISE's greatest strengths, while simultaneously being its greatest weakness. As a local program, its volunteer workforce did pose great challenges when trying to reach its fuller potential as a site. In this instance, AISE becomes representative of the larger challenges that grassroots collectives can have when

attempting to sustain their programming – operating, in different ways, on shoestrings. With the latter not always being a shoestring budget, as the saying goes.

The Elephant in the Room: Administrative Support

During my 3rd trip, in response to my participant-observer role, my movement at AISE brought me front and center with their administrative struggles. I simultaneously fulfilled meaningful administrative roles for them, while tracking an emergent theme: "admin. functions falling through the cracks in the 'doing' of the program". These programmatic and administrative functions include varied widely. First, there was constant discussion, but little execution in expanding the networks used for student advertisement. Staff wanted to diversify the networks used and increasing the overall student numbers. Parents frequently commented on this point in interviews and to each other in statements such as, "Well I think, to me, I don't know why the program is not more popular – I'll say well attended – as I would think it would be. I would think there would be a waiting-list; that we'd be busting at the seams".[81] The second problem discussed, but not addressed was holding consistent orientation sessions. During my year in Philadelphia, the fall orientation session was held by program staff and well attended by volunteers. It was taught by a local African-American veteran educator. However, the winter and spring orientation sessions did not occur for different reasons. I was told by James during an interview that the winter orientation was scheduled, but cancelled. And I never heard anything about the spring session from program staff. As the program received new volunteers throughout the year, orientation sessions corresponding to each new module would have supported volunteers' transition and the overall execution of the program's intent for the kids it served.

[81]"Amarah Azer Interview" 2014, excerpt.

Volunteer sign-up sheets directed at parents, to fulfill different program roles, were once disseminated by Sister Amina. James took on this role. He created the sheets, but had trouble monitoring parents' execution of the various tasks. Lastly, module-ending and year-ending fieldtrips were once a routine part of programming, meant to bring new concepts learned into the real-world.[82] Some of these administrative and program functions were more essential than others, but they were all program practices that once took place, but for various reasons were not happening consistently. As Dawn stated, the "doing" of enacting the weekly program was being completed by overstretched volunteers. Often tasks, in particular those noted above, became jobs James verbally took on and stated that he would follow through with. In my time in Philly, it was the follow through that was often missing. These roles fell to the wayside, while programming central to AISE's operation – Saturday sessions, science fair, and the biannual Science Bazaar – were met.

In general, a main bulk of AISE's administrative work was completed during Friday night set-up sessions. During this time classrooms were arranged for the next morning (James often began this work on Thursdays and continued it with assistance on Friday evenings). As James ran through the house pulling materials together, and before Dawn's final run through when she made the shopping list of perishable items needed for the next day, a group of volunteers reviewed student and volunteer materials for the various lessons. This meant reviewing the kids' folders (examining the work completed the previous week and making sure all necessary worksheets were there for the next day), providing hardcopies of all teaching aids, the lesson plan, daily student evaluation sheets, math worksheets, and the story that corresponded

[82] Some of the trips that once occurred more regularly at AISE were trips to Cobbs Creek following the fall module or end of year and trips to the local SEPTA train station following the winter physics unit, stressing the 3rd grade's unit on the physics of sound.

with each lesson. In moving through this Friday routine, the following fieldnote was produced – illustrating the complexities in producing the big program functions, but seeing the impact of "smaller" functions impeding that process.

> *I started with the third grade and Carla with the second grade. Carla moved much faster than I did. She was quickly onto the fourth grade. What we needed to do was three-hole punch old pages, make sure they [the kids] had new observation sheets and space in their word bank sheets for the next day's lesson, make sure their math packets were not fully completed. In the teacher's binders we three-hole punched the lesson plan as well as example sheets for the week in the section for the current unit. I ended up moving things around a lot because I was not putting them in the right place. When Carla got to the fourth-grade materials she realized that things were not being accomplished in the lessons as they were supposed to be. The kids did not have the completed sheets in their notebooks from the preceding week. This meant they were not doing their worksheets. They were not getting the full effect of the lesson. This was a major problem. I learned in this instance the centrality of the fact that the lessons were building upon each other and if they [the kids] had not done all of the material from the last week (central components) then they would not get what was going on tomorrow. Carla also realized that the kids were not being asked to complete their Word Banks correctly. She noticed this with the second graders, but stated that it was not as big a deal because they were young and new to the program. With the second graders she let it slide. However, with the fourth grade this was a problem. To complete the Word Bank correctly, meant not only writing their new vocab words on the paper, but also including their definitions. This latter part was not being done. I knew from my time in the third grade that it was not being done. I told her that. She looked concerned (and a bit bothered). We also determined that the kids were not writing their observations on their Observation sheets as they should. So, things were falling through the cracks, impacting the full intent of the curriculum. This was a problem. I felt that it may have been influenced by the fact that there was not a winter orientation. Since Dawn's talk at IAFA was so positive there was a good amount of new staff who may not be fully aware of what they should be covering in the classrooms. I know that the staff who have been with the fourth graders up to this point were new. I (and I believe Carla) took it to be a lax in communication. Though, she stated they were told (I believe via email by her) what they should do. I do not think it sunk in. She felt that an orientation would have been good. We talked about the importance of staff communication and how that could be accomplished in strategic ways to make program proceedings were moving along as they should. Carla talked about the importance of potentially having an event at the close of each unit to get feedback from staff. I agreed and felt that this may be collected through a survey of some kind. Carla agreed. She also stated that she asked staff to comment after each lesson in case something was not working. However, she went on to say that she was not receiving this information. We concluded that end-of-unit reviews were needed as well as introductory orientations (which I stressed) because there may be new staff. There tended to be new staff by unit, or staff that had not been there for a while (maybe since teaching that unit the previous year). The program was definitely at a place where it functioned more smoothly. I am leery to say like a well-oiled machine. However, there were staff that came during a given unit because it related to their department or work on campus. For example, the chemistry department played a major role in the fall unit because of the centrality of chemistry to the unit – particularly for the fifth graders. This Friday night set-up definitely indicated that there were legit kinks that needed to be worked out.*

As I participated in Friday night set-up most every week during my third trip I knew that this level of misinformation was not common. However, it was a reality this winter module that needed to be resolved. Though I think the larger issue stemmed from the fact that the program received many new volunteers (from IAFA) at the same time. These were individuals who needed to be brought into the fold for program consistency and to aid in their overall success in the classroom. As Carla's follow-through with staff and volunteers was quite sound (it boarded on anal) I know the volunteers received her email. However, as this Friday night review session illustrated it was not enough. Though we discussed strategies (some old and others new) that could be used to better communicate with the volunteers, ultimately some materialized while others fell through the cracks. End of lesson reflective assessments (referred to as Star Sheets) and pre- and post-assessments were added to the administrative repertoire during my 3rd trip, but the large majority of ideas meant to further solidify program proceedings fell through the cracks. This was because a major resource was missing from this volunteer workforce.

When it came to administrative needs, the major elephant in the room was the necessity of a part or full-time administrator to help solidify program functions. The centrality of such a person was continuously discussed, but never obtained. More than anything, it was because of a lack of know-how in securing a grant and growing the program to support an actual employee. What AISE's staff and volunteers brought to the table – STEM content, rich campus networks, an investment in the kids, and a willingness to learn – were clear. However, the skills they did not have could be just as apparent. For example, how to secure the funds to hire a staff member. Again, the skills that staff were without did not impact the large program functions such as, Saturday lessons, orchestrating science fair participation, putting on the Science Bazaar. These were all activities that helped kids learn to ask and explore questions on their own. However, it

was the "in-between pieces" that help make a program run more smoothly such as, decreasing communication issues, systematically tapping into parent networks, and holding routine volunteer training sessions that were missing.

Because of manpower issues, AISE's staff had difficulties solidifying its base as a new non-profit. There was continuous talk on the importance of keeping Dawn and how that effort required obtaining a large grant to secure her salary. During my 3rd trip, Dawn was one year out of graduate student working in a local science industry. However, her passion was working for AISE, but there were not funds to sustain her employment. Staff did apply for and receive smaller grants for a specific module or curriculum unit. As content expertise kept curricular costs low and the space came free of charge from the church, it was administrative support that AISE needed external funds to support. Suring up programming in this way was beyond their immediate expertise. Though they attended grant seminars and workshops geared towards newer non-profits they were never able to clear this programmatic hurdle. Consistent administrative support could alleviate some of the above issues in AISE's maintenance and expansion.

The Elephant in the Room: Sustainability & Growth

Interviews and participant observations included many wonderful ideas to grow the program, but they stayed in the realm of wonderful ideas. One project, which began, but lost momentum were online tutorials for volunteers. The tutorials centered on instructional practices and student-teacher relations. Working with Dawn we began recording class sessions with seasoned (or more comfortable) volunteers with the intent to manipulate them with voice-over and freeze-frame to support volunteers' continued learning. However, this project was not finalized. I was a member of the staff team that dropped the ball on this one. There were a few wonderful administrative successes that I participated in, but this was not one of them. The most

important ideas that James and program parents wanted to enact, centered on the program's youth. As previously shared in the last finding chapter, James was concerned with where his graduates went once they aged out of the program and how they were supported through middle school in STEM fields. He wanted a full-time staff member to help maintain an alumni network. To the same effect, program parents were also concerned about opportunities available to their children through middle school and high school, hoping that AISE would continue to grow and follow them through their studies.

> **Shana**: So there have been different alumni girls, Jayda, Aaliyah, and Amatul-Aala who on their own or through their parents talked about being interested in coming back and volunteering.
>
> **James**: Yes!
>
> **Shana**: Would you want them to play that supervisor role, say in 2nd grade or 3rd grade, the lower grades, with 2 Frankfield students in there? But maybe put the alum on a rotating basis. Because the kids are like 'yeah!'. The parents are kind of like 'I get my Saturday back, and then my kid wants to volunteer.'
>
> **James**: (laughter)
>
> **Shana**: So even if they were on a once a month rotating basis, in 2nd grade. If 2nd grade is huge again. Or 3rd grade is going to be massive because its will be the current 2nd grade. But having the alumni on a rotating basis to come back into the program.
>
> **James**: Right. I spoke with Wanda Baker about that. I told her we were very interested in that. I guess I am inclined to put them with 2nd graders. I don't know about 3rd graders. I don't know about that whole dynamic between a 6th grader and 3rd grader. I don't know how that will work out.
>
> **Shana**: Okay
>
> **James**: I will have to ask around. See what somebody says, but definitely with the 2nd graders. To have 1 of them come in, would be good. Because first, it's going to help solidify what they [the alumni] already learned. Because it's a lot of repeat in there. And second, it lets them see, it lets them engage with the younger kids – that whole mentoring piece.
>
> **Shana**: Yeah
>
> **James**: I spoke with Wanda Baker, and the idea was to open it up and invite other grads to come back

Shana: Yeah. Aaliyah Umi and Aaliyah are both excited about it. I also think that 2nd grade works, just in case there was ever a 3rd grade who was not listening to Jayda because if they're like 'I know you. You were here last year'

James: Right.

Shana: 2nd graders don't know who any of these people are.

James: Exactly. Exactly. That's my point.

[15 second break in transcript content]

Shana: I think, this could be a great opportunity for all of the graduating 5th graders, but just thinking about maturity I'd rather have Jayda in there than Somi (light laughter). They're all 5th graders, but this mentoring program could also be away to keep the girls connected to STEM fields through middle school.

James: Right

Shana: Keeping them in a science-related space, if you can get them back in this supervisory/mentor role with the 2nd graders.

James: That's right! Because a lot of those boys were in 5th grade this year.

Shana: Qizar.

James: Qizar, Laeth, Somi. They were all 5th grade so they're all done.

Shana: Yup, besides science fair.

James: Right. Okay. (reflecting upon situation)

Shana: You have a strong alumni network to…

James: (interjects) boy, oh boy! (He's having a long reflective thought here!)

Shana: …to keep in touch with.

James: Okay. Cool. I'm tired. That's all I can take.

Shana: Okay.

Creating this type of wrap-around program imbedded in AISE was a wonderful idea, and one that various parents spoke to during interviews. This type of program would not have been difficult to get off the ground, especially because almost all of the program graduates, during my 3rd trip, had younger siblings at AISE. Their parents would still be coming to AISE on Saturday

mornings. There was strong interest from the graduates, parents, and staff. It was just orchestrating the effort, and that was where the ball was dropped. There were not enough volunteer hands to go around. As James stated in the close of the above excerpt, "Okay. Cool. I'm tired. That's all I can take". He and I spoke regularly. This excerpt is from an interview that took place during a working lunch, in many respects, it reflected the state of affairs with the staff. They were tired. They were all working for free. They were invested, but were operating in a program that was living paycheck to paycheck. They needed monetary resources to secure manpower.[83] At AISE expertise was always cost-effective within the budget because it came free, but it did not replace the need for a dedicated staff member.

Ultimately it came down to what expertise could buy, and what it could not. When I discuss AISE in non-profit and education-related communities people are always surprised by the program's small budget. AISE's staff utilized local networks advantageously, especially when it came to space and the curriculum. AISE provides one example of the built capital available in black communities (e.g. faith-based institutions) and how it can be mobilized to supporting student learning. The program also illustrates the know-how (expertise and social capital) present within this community and the means to bring external resources, that some may perceive as alien, into an inner-city space. However, in this case, paid manpower was a fundamental need that was not met. Ultimately, AISE offers an approach that illustrates how a grassroots educational program can mobilize to secure *some* foundational program pieces, but there were still hurdles that they could not overcome on their lavish shoestring budget. Yet, at the

[83] In the years following my 3rd trip, I came to realize that their administrative hang-up was not being a program that centered around a charismatic leader. It was graduate students (and recent graduates), and to a lesser extent parents, who fulfilled many key administrative functions. It's great that Carla, Serena, and Lydia stepped up and took on many of Dawn's job functions once she relocated to the District of Columbia, but a paid staff member was still needed.

same time, AISE's operations point to a more nuanced understanding of what money vs. human and social capital can buy in an inner-city context.

This chapter moved through rich data and a breadth of content. Its central premise was to present an analytic examination that responded to prevailing trends in the community engagement literature. It specifically attempted to construct a genuine balance in presentation between the contributions and voices of community and university actors present in partnership work. This was a balancing act where the university was not presented as the orchestrator of the engagement initiative and the community as needy recipient of external supports. Rather, the intent was to illustrate that the community – through its human and physical capital – was just as essential as any university actor or resource to AISE's enactment. Community actors provided the literal space for the program, were instrumental in framing its initial curriculum, acted as valuable auxiliary support, and fulfilled administrative roles that sustained programming. Yet, the most pinnacle community asset were AISE's black parents. Their investment was central to the program's continuation because they not only had to bring their kids each Saturday, but bring them equipped, emotionally and physically, to receive the content created for them. Parents were an essential gatekeeper (broker or conduit) because they ushered in AISE's target audience. When examining this partnership's university counterpart, prevailing scholarly trends were also trumped by the usage of irregular institutional channels – the product of *backdoor capital*. These were university channels consistently maintained by less commonly featured actors in the literature such as, people of color, graduate students, and university staff. These were collectives that carried resources or had access to rich networks to support community-based programming. The utilization of backdoor capital not only brought less common voices from the engagement literature into the equation, but also resulted in collectives whose inclusion did not impede

program leadership's programmatic objectives. In this sense, both sides of this partnership brought fresh perspectives into the larger engagement literature. Though the chapter's last section unpacked some of the obstacles to maintaining community programming, this section still illustrated the nuances to need, the impact of galvanizing local capital – and therefore more of the fullness in a shoestring budget. Ultimately, AISE's enactment illustrates a potential for inner-city mobilizing across an often segregated urban terrain, the result of border-crossing along multiple local fronts. Boundaries and transcendence that occurred along institutional borders (on campus and in the community), geographic borders (in the city), and borders present in the larger engagement literature (mudding prevailing divides between where the university and community sides of the partnership begin and end).

CHAPTER 7: THE KIDS WHO MET IN AISE'S CLASSROOMS

Shana: How would you imagine the program's place in students' lives, in terms of personal and academic development?

Natasha: Wait, what students? Us? (stated with an apprehensive tone)

Shana: No.

Natasha: The kids?

Shana: The students, yeah – the little boos.

Natasha: Oh, okay. Wait, what's the question again?

This exchange exemplified a positionality that I did not recognize when I first learned about, or entered AISE. For me, AISE's classrooms consisted of kids and "scientists". Yes, I knew the program's scientists were graduate students like myself, but the idea of AISE's youth meeting "scientists" was something that staff strongly perpetuated. The program having two student populations never registered to me. However, the construction came up repeatedly in volunteer interviews in response to how I framed some of my questions. As this exchange illustrated, Natasha and I attempted to locate and work through our disconnect so she could answer my question. Yet, when clarity was established the rift in our initial framing was so jarring it required the actual interview question to be restated. Though a short exchange that could be overlooked as a miscommunication; its repetition amongst volunteers made it important to address – namely the experiences of AISE's kids (big and small). Therefore this chapter will examine the obstacles imbedded in not only maintaining each population, but the challenges faced in responding to their diverse needs overtime. Ultimately, illustrating how conditions outside of staff's control profoundly shaped the impact they intended to make through AISE's programming. The chapter is broken up into two main parts: each focusing on one of the student populations that met in AISE's classrooms. The chapter will begin with the experiences of

AISE's targeted students, its inner-city youth. I will examine the obstacles imbedded in navigating the local context, specifically the formal school system, to obtain the targeted population. In the process, I will showcase some of the hidden barriers, more readily, attached to certain inner-city youth populations impeding collaborative engagement across learning sectors. The second part of the chapter, will examine AISE's older students. I will illustrate how volunteers' identity constructions not only shaped their rationales for investing, but also showcase how their positionalities expand common constructions in the literature regarding the university actors present in engagement initiatives.

Table 2

Lost & Found: AISE's Youth & The Waves They Rode In On

Descriptive Notes	Reflective Notes
The students moved through 12 questions in their math session time. They then moved through 5 as a group. At this point they stopped doing math and turned to the lesson. They began by reading a story to get the lesson started. It was on air. The second graders have a curriculum storybook they are reading from as they move through this unit. Ms. Zena led them in a circle reading, with each kid reading a page of the story. Ms. Z. told them that they were going to move	I was nervous for math because of past experiences people had had with teaching the kids math. However, there were no tears and the kids were pretty good with the math! These second graders are shocking me in so many ways. They are not crazy, they do good with math, they are not nervous about being there, and they are learning. It's nice to see them "mastering" the program.

	Table 2 (cont.)
through 13 pages. Tatiana said, "13 pages!" The idea of it seemed quite daunting and she seemed to have the feeling that it was going to be too much. However, there was not much text on each page. The students took turns reading. Amalia started. She read quite well. It was smooth, clear, with emphasis. Tatiana followed, she too read well. She read with wonderful emphasis. Jahaan followed, reading just as well. Haseen followed, reading well. By this point the more negative energy he entered the class with was gone. He was engaged in the science content. He no longer focused his energy on where he was not – soccer. Abdur-Rahman was next. He also read well. Mahd then read. His reading was not as clear and smooth as the others. In relation to the group I would say he is a below average reader and the rest of the kids are very good readers. Mahd, however, was not discouraged. He continued to sound out his words. He was	I was concerned with their reading as I was with their math. I didn't know what to expect. No one says anything constructive about their schooling experiences. I wrongly assumed that they may have reading problems or difficulties. As a human being I too have notions and misconceived notions of the space and the students. I hear things that people say. I hold on to some of the same ideas and stereotypes – here about struggling schools. The students will be proving me wrong within this process. It's good to reflect. I did not read like Amalia when I was in 2nd grade. I was impressed with his lack of fear.

not embarrassed to work on his reading in this public place. After a while Tatiana however took it upon herself to tell Mahd words that he began to struggle with. The teachers did not interrupt her. However, her interjections annoyed Amalia. I believe she goes to the same school as Mahd. She was very vocal in stating "He can read!" – telling Tatiana that she did not need to interject herself into his reading. Tatiana stopped interjecting and Mahd finished his reading – he struggled through pieces of it but he did not give up.	Table 2 (cont.) I don't think Tatiana is use to another student being so forceful. Amalia is vocal like Tatiana, but uses her vocalness to "call out" things that she thinks are not correct; rather than Tatiana who uses her voice to act a little bit like a distracting class clown. She means no harm, but she has to know she is distracting to the process.

By my 3rd research trip, the above fieldnote excerpt[84] was representative of AISE's classrooms. Each room had approximately 5 to 8 students on a Saturday morning, with the 5th grade averaging a little larger and the 4th grade a little smaller. Kids were generally comfortable with each other, feeling free to bring more of their authentic personalities into the classroom. In this instance Amalia standing up for Mahd (a little boy she knew from outside of AISE), in response to Tatiana's more extraverted *helping* nature. As previously stated, for many of AISE's students at this time, program participation was something of a family affair. Outside of two cousins (in 3rd and 4th grade) every child who could have matriculated at AISE (a 3rd grader or

[8484] Fieldnote. "Fall Module: Week 2, Second Grade".

older) had been there for at least one previous year. With regular attendance it was easier for the kids to get to know each other and grow in comfort through a weekly 2.5 hr. Saturday session. This fieldnote was recorded during the program's 5th year, when it featured many sibling groups and pulled the majority of its kids from the same local school community. With sibling groups, many of the younger brothers and sisters such as, Amalia and Abdur-Rahman first came to the program years before they were eligible to enroll. These kids sat through years of AISE's opening and closing sessions and often hung downstairs with their mothers while their older siblings participated in programming upstairs. This context created a *coming-of-age* experience at AISE personified by one mother as the "countdown." This mom, Sister Faqirah, went on to describe how her children experienced the milestone when they entered AISE's second grade class, stating:

> It's a stepping stone in our kids' lives. Amalia, she is really technically in the first-grade, but she could not wait… She wanted to join the second grade class. In the past, I was like, 'No you can't join the second grade class because you're way too young.' They are all looking forward to when they can start, they say 'When can I start science camp!? When can I start science camp!?' I told her 'This year you can start science camp.' She was so excited! All of them are really excited. So Qaahir is looking forward to science fair next year. Even Qasid, Qasid is in third grade here, but he is really a second-grader. He did the same thing as Amalia.

This student population, that regularly came to AISE in family units, was representative of AISE's *second wave* of students. Sister Faqirah had 4 children who matriculated through AISE at this time, the oldest beginning when he was in 2nd grade. This *second wave* first appeared at AISE late in the program's second year.

The Lost Ones: AISE's Initial Kids

I never met AISE's original student population, but they were never far from the minds of the program's staff, particularly its founding members.[85] When the program was designed, AISE's *first wave* of students were James' target population. Their schooling and economic situation was representative of the immediate context that surrounded the church (and therefore AISE). James intended for the program to make a particular impact in the local neighborhood, geared towards what he saw as a specific subset of the neighborhood's student population.

> **James**: The first 2 years we had neighborhood, just neighborhood kids. And those are the kids at these school here; so they are poor performing kids.
>
> **Shana**: Okay.
>
> **James**: And that was very exciting [in relation to the type of impact the program would be able to make]. (Pauses to process internally before speaking) Very poor parent response. Most of the kids were walking here [to AISE], walking on their own.
>
> **Shana**: Okay
>
> **James**: Now, we got kids who are probably, who are higher performers. And parents who are more involved. My personal thing is that when we first started I was *aiming* for the lower performers, because the higher performers are going to do well anyway.

AISE's *first wave* students existed in a continuum commonly shaped by the convergence of poor performing schools, lower student performance, and more contentious home lives. Later in the above interview, students' socioeconomic status was presented by James as being on a trajectory from homeless to working-class. Though the *first wave* kids came from neighborhood schools, the majority of them originated from one school – the Carmichael Elementary School. The last line of the above excerpt speaks to James' personal logic surrounding school policy and accountability – creating AISE for the kids who he felt "fall through the cracks. Because there

[85] The delineation I make between AISE's youth, as the product of a first and second wave is a demarcation that I received from AISE's founding staff. These are the staff who were present for both groups of kids, and witnessed the shift in the student population overtime.

tends to be resources for kids, gifted kids who do well. Resources for kids who are really having problems, but there seems to be a lack of resources for those kids in the middle."[86] James' *middle kids*, his desired *first wave*, were still low performers, but not neighborhood schools' most remedial students.

Sadly, by the end of AISE's second year the program lost these kids, which staff blamed on two contextual factors. The first was the transient nature of some of the *first wave* kids' families. In interviews and casual conversations, longstanding staff and volunteers spoke to what they saw as specific social benefits to participation for some of their *first wave* in response to fractured home lives. When asked to reflect upon how she felt AISE impacted students' academic and personal development Dawn's response included,

> In terms of personal development, they get to interact with one another, but I guess another thing. For a while – because the first part of the program [this is reference to first wave kids] they were from different schools. And, so, they got to see people who, weren't who they saw every day. And so they got to build new friendships and learn about science. And I think, for some of them who had really rough lives, like this one little – well actually a few of them who moved homes so much or, who we could not always get in touch with because the lights were off or the phone was off – I think she looked forward to Saturdays when she could be among peers and people who were really excited for her to be there and doing science. I think it took her mind away, you know, just for that small amount of time. And she was just very happy. And it's disappointing because we haven't seen her in a while and I *hope* that things are okay. So I think that for kids who may have issues at home I do think that the program, with enthusiastic volunteers and the learning experience, can be a great release.

Along with feeling that AISE could create a safe space for some, the second, and most often repeated factor for AISE's lost *wave* was a school policy – Power Hour. The policy was meant to help beef up standardized test scores at low performing schools by requiring test prep on Saturday mornings. During AISE's second year, Carmichael was in a probationary period attempting to avoid reconstitution, which made students' standardized test scores extremely important. For AISE, this policy was detrimental in not only pulling the majority of its kids into

[86] "Day in the Program – J. Gentry" 2011, excerpt.

formal classrooms on Saturdays, but it also resulted in James losing his main contact at a neighborhood school. In losing access to the Carmichael principal, James lost an ally who championed the program – advertising it within his school and pitching its value to his parents and staff.

Following Power Hour's enactment, James was never able to re-establish connections at Carmichael, or any other neighborhood schools. By my 3rd trip, he had repeatedly been rebuffed when attempting to find a receptive audience to present the program to.[87] Along with advertising through parental networks at Taealam Academy and amongst interconnected local Baptist churches, James had also reached out to school leadership at Carmichael Elementary School and Newton Elementary School (another neighborhood school). He sent school administrators letters introducing the program and dropped off fliers and pamphlets at the principals' offices. He stated within our exchanges that his communication with both schools, especially at Newton, regularly ended with the school secretaries. He felt that his program materials "probably went into the trash."[88] He and I both found it difficult to get onto principals' calendars, especially at the Newton Elementary School. Newton had a secretary who acted as an impenetrable brick wall; she was a *good* line of defense for any principal who wanted to screen external communication with city residents. [89]

[87] A receptive audience included school leadership willing to hold a meeting to learn about AISE's programming, discuss its potential for their kids, and considering allowing James to advertise within the school.
[88] "Next Steps - J. Gentry" 2014, excerpt.
[89] From my personal experience volunteering with PPAC at the Newton school I know that they had a new young principal who came out of the Frankfield SOE. She oversaw a major transition at the school that saw a great influx of Frankfield human and monetary resources into the school. The school was moving in a particular direction, growing through the support of Frankfield. I always assumed that requesting a meeting for a fellow Frankfield staff member, operating a program in the neighborhood, would make sense in the context, but that was not the case. I volunteered weekly at Newton and checked-in through a guest book kept in the office. I engaged in small talk each week with teachers and the secretary in the office. I was not a faceless stranger; however, my requests to meet with the principal were met with a cold and firm "no" and commentary about how busy she was.

James rationalized his program's cold reception as the result of the immediate educational context that formal school personnel, AISE, and neighborhood residents were forced to operate in. He felt that,

> science education is not that important in the neighborhood and in the schools. The schools are underperforming schools so they are *really*, they are really focusing on the math and verbal piece. Science piece as they can get it [on the PSSA], but it's really not up there on their list of priorities. Even at the high school, I know a guy who teaches biology there and I was talking to him about what they do, like, 'Do you guys do this!? Do you guys do this!?' '*No, we look at slides* (personifying the teacher, with an exasperated tone). So, I mean, I am sure he's excited and would *want* to do other stuff. I don't, but funding, or whatever.

He went on to state that when talking about the program to different communities in Pendergrass or when AISE's content took the kids and the volunteers onto the house's front lawn the disconnect continued. He surmised that the program was received as more of a "curiosity rather than something people are really interested in"[90]; concluding his idea with the following exchange,

> **James**: That if we were doing a reading program or a math program then I think people would be like *oooh, oooh* I have to send my kids there. But we're doing science and people don't know what science is. (laughs at his statement – I believe the assumption imbedded in it)
>
> **Shana**: So a lack of information or insight into the subject area?
>
> **James**: Sheesh, I don't know. (not sure if he buys my claim)
>
> **Shana**: (interjects, cutting him off). I think science for some people can easily come across as more abstract. Like math and reading, those are staples – like, meat and potatoes.
>
> **James**: Right, right!
>
> **Shana**: But science is like
>
> **James**: Eeehh (tone: like a person could take it leave it) It's like art or music, but it's not even cool like art or music. (he laughs)
>
> **Shana**: But it will get cut like art or music.
>
> **James**: *Yeah!* For real.

[90] "A Day in the Program – J. Gentry" 2011, excerpt.

Science is an area of inquiry often introduced in school. It is a subject, in this context, that has limited resources funneled into it. In many parts of the country, including inner-city spaces, science is not a "meat and potato" subject because of funding, instructor training, and/or its place on standardized testing (Emdin, 2007; Tate, 2001). For James, he felt that these larger social perceptions of science informed the program's reception in the community and neighborhood schools. Science's value as a tool to better understand the physical world around us was lost, especially when its dynamism could be truncated to *looking at slides*. As inner-city schools are commonly bombarded by this trifecta (funding, inefficient instructional training, and standardized testing), it could arguably be a luxury to readily think about schooling or learning opportunities outside of the confines of punitive reform measures and the differentiated value they place on academic subjects. This was the educational context that James understood his program, neighborhood school personnel, and his *first wave* kids (and their families) operating in. This was a context where policy meant to uplift (or hold accountable) ended up pitting learning sectors against each other. In this case, it resulted in AISE competing with Carmichael for the same student population, a fight that they would never be able to win. In a larger sense, the policy was a part of an educational system that played a major role in determining what subjects (and therefore what academic enrichment programs) were of value.

Lost Ones: Hidden Barriers to Student Engagement

Staff, specifically James and Dawn, were aware of many of the obstacles facing local schools and their students. These were conditions that placed neighborhood black kids "at-risk", in ways that extend beyond the common tropes featured in sociological examinations of urban America. As stated, at Carmichael AISE was a low priority, as the school had many more immediate fires to respond to, especially with reconstitution looming as a backdrop. Dawn and

James shared stories during our meetings about fighting in the classrooms and issues with high teacher turnover. They understood that the school was juggling various priorities. During my 3rd trip, staff also faced a principal at Newton concerned with transitioning her school over to large-scale Frankfield investment, in what turned out to be transformation into a Frankfield-assisted wrap around school. Though James only wanted a meeting, he never registered on the principal's radar. By the close of this trip, James shared that Carmichael was no longer operating Power Hour[91]; however, when he met with the new principal his joy over James' connection to Frankfield was short-lived.

> **James**: He was all excited to meet with me, but that ended quickly. I showed up, we started talking, and I began to tell him about the program. However, when he found out that I wanted to promote AISE his interest in the conversation totally changed.
>
> **Shana**: Really?
>
> **James**: He knew I was from Frankfield, but he thought I was a part of some university entity that would come in and manage or invest in his school.
>
> **Shana**: Like, take it over?! (surprised tone)
>
> **James**: Yeah! So, when he realized that I was coming in to promote an afterschool program *associated* with Frankfield he was no longer interested. I was not the Frankfield that he expected.
>
> **Shana**: He wanted you to come in and save him.
>
> **James**: Yeah. The school needs help, but I wasn't the type of Frankfield he was after.

Though James left the meeting frustrated, the principal's expectation were not unfounded. Newton was in the midst of a multi-year investment project with Frankfield. It was also an elementary school blocks away from Carmichael and had been selected for coveted Frankfield investment. James and I got the sense that the Carmichael principal was looking for superman, in the form of Frankfield capital. He wanted someone or something to come in and save his school

[91] I was informed by James that Carmichael was no longer offering Power Hour not because the students' test scores increased to the appropriate level, but because the city ran out of money to fund the program.

(and him). And when James did not align with his intentions, he felt that principal's interest was lost.

In this Pendergrass neighborhood kids were attending schools the product of diverse challenges such as, punitive reform policies, poor funding, high staff turnover, and behavioral challenges that impacted classroom management. Collectively the conditions placed neighborhood kids – specifically at Carmichael – "at-risk". An "at-risk" label quite different than what is more commonly constructed in urban reform literature when describing inner-city black youth (Swadener & Lubeck, 1995; Toldson, 2019a, 2019b).[92] In this instance, it was not home-lives (e.g. black mothers), or social ills found on inner-city streets impeding kids' learning potential, but various deleterious factors impacting their schooling experiences. In AISE's case, staff made clear that students' home lives hindered some in their *first wave*, but these larger schooling factors had a systemic impact on the entire student-body's current learning experiences and future trajectories. I am also using this term, not as an adjective to describe inner-city youth ("at-risk youth"), but as a noun contextualizing the risk factors present in their formal schooling experiences impacting their ability to gain awareness of and access to learning opportunities in their community. School personnel were enamored by learning contexts that were either influx (Newton) or volatile (Carmichael). As these schooling factors shaped student learning, school administrators, wittingly or not, kept their kids from hearing about a community program that could expand their learning through play. In this sense they acted as gatekeepers in a context that

[92] This is a label that I do not ascribe to, because it commonly constructs individuals through a deficit perspective, where saving often comes from individual's removal from contexts that are presented as deleterious and one-dimensional. However, it is a frame that not only exists, but is often touted in scholarly literature, media outlets, governmental programming, and non-profit organizing, especially when describing inner-city black and brown youth. It is a label that scholars have attempted to push back on, for example, when arguing for inner-city youth's examination as "at-promise". In this effort attempting to turn the label and the negative connotations associated with it on its head. Here I intend to broaden the label and further contextualize more of the societal markers that can place inner-city youth at risk of reaching their fuller potential in society – markers that have nothing to do with one's home life or familial relations.

could only benefit from formal and informal partnerships and healthy school-community communication. School leadership, from both schools, where concerned with forging alliances with Frankfield University; an understandable goal in Philadelphia. However, such intentions were troubling for a community program director, when he watched a school principal (a potential educational ally) transform from eager listener to passive participant in their meeting. In his current educational climate, the Carmichael principal could not see, or was not interested, in the potential of a subject-specific OST program. In a learning context where issues are large and ever-looming competing priorities (in this instance surrounding imperatives to stay open) created their own risk factors for neighborhood youth.

Bubble Kids: Unpacking Labels & AISE's Second Wave

Throughout my time in Philadelphia the *first wave* students could be classified as the Lost Ones. Efforts were made to retrieve them, but program staff were repeatedly unsuccessful. James did not frame his current kids as academically "in the middle" – like his former. During a spring semester debriefing session, James and Dawn spoke to this point concluding that they had no problem with the current kids, that they appreciated their consistency and loved the parental support that accompanied them. Dawn jokingly pleaded "please keep coming" and James added,

> You know they're great kids and we want them to keep coming, but on the one hand it's easy to work with easy kids (laughs loudly). I've worked with difficult kids and difficult parents. So it's nice to have parents who bring their kids. They make sure they're here. No slight against that, but it's unfortunate that we can't get the old kids back too…It's unfortunate because the scenario for poor performers is that not only are they poor performers, they are not – there is no one to push them.

There were great bonds between staff and the majority of the *second wave* families, but they did not reflect the impact that James personally wanted to make in the local community. Dawn understood his intent, but never really spoke to the idea for herself in our exchanges. James saw his *second wave* kids as higher performers, who were attached to engaged parents. He also knew

that they attended a range of school types in the city, including: lower tiered private schools, parochial schools, charters, and traditional public schools. Parents in the latter two categories moved their kids around in relation to school choice options.[93] A perception that led to him momentarily bemoaning that "this [working with AISE's *second wave*] was middle-class stuff"[94]. He knew that AISE's programming was making an impact, but it was not the impact that he set out to make. In response to James' construction of his *second wave*, I told him that I thought he had *bubble kids*. As bubbles they were not from the city's upper-crust – its highest performing exam schools; however, neither were they exemplar of the program's *first wave*. I went on to describe their bubble status as them being,

> kids in the middle. So through AISE they get this extra push. The idea of one of them wanting to continue in the STEM fields is more likely. Leading some people to *argue*, in terms of a return on your investment, it's *smarter* to work with the bubble kids.

James saw where I was coming from and referred to the situation as investing in "low hanging fruit."[95] Scholars have examined such educational practices, especially in the context of school personnel strategically categorizing and investing in segments of their student population to meet educational benchmarks set in reform policies (Booher-Jennings, 2005). A desirable type of investment for some, but not for all, concluding the idea with the following point,

> **Shana**: So, as the argument goes, would you rather have a B student that you can turn into an A student? Or a D that you can turn into a C?
>
> **James**: Right.
>
> **Shana**: But then, that gets into the politics of how you see things. But I think you have bubble kids.
>
> **James**: Yeah, that's a good term. You know, I'm not mad at it [his present context regarding his kids]. But I just *wish* that we had more of the other kids who need, who need this as much.

[93] Those in the latter categories were commonly proactive consumers in the local educational landscape, aware of their rights to move their children to obtain the best learning opportunity possible.
[94] "Next Steps – J. Gentry" 2014, excerpt.
[95] "A Day in the Program – J. Gentry" 2011, excerpt.

James was by no means cherry picking his kids. For him, he ended up with kids who, in general, he felt would excel academically even without AISE. On the one hand, I understood where he was coming from, he had a particular perception of the impact he wanted to make. As I previously stated I too had my own constructions (FUBU) of who I thought I would encounter in this inner-city program. While James momentarily lamented about his program's impact, I shared with him my Midwestern imaginings about AISE. I told him that I did not foresee children attending private schools, parochial schools, or navigating school choice options in the public school system. It may have been my ignorance, stereotypical thinking, or a reflection of how I remembered my schooling experiences in an urban working-class community. In this instance both James and I shared some of the baggage and expectations we had for the program's impact.

However, sitting in AISE's classrooms each Saturday morning for an academic school year I was able to see a diversity amongst the students, a messiness in their educational profiles, that was lost in James' sweeping characterization. Around a given classroom table, on AISE's second floor, I saw high achievers who read above or on grade level and engaged with the program's content in critical ways. However, during my participant observations I also saw kids who struggled with reading, reading comprehension, grade appropriate math problems, and higher-order thinking skills. AISE did create a welcoming intimate environment to work on these skills, often through one-on-one support. This was growth overtime that the volunteers commented on as they worked with the kids year after year. The large majority of the kids did share the benefit of engaged parents or extended family members, but there was still a range in their academic abilities. As a collective, I think they could be classified as bubble kids, but the

middle-status that their *bubbliness* gave them and James' desired "middle kids"[96] shared more overlap than I believe he recognized. I would argue that the majority of his *second wave* would still fall through the cracks he was so concerned with because the majority were neither the highest achievers or the most remedial. He did have a few students who academically were showstoppers, but their educational profile was rare at the program. None of the kids attended schools in the immediate neighborhood, so they were not enrolled in schools teetering on reconstitution or being transformed by considerable university investment. However, the large majority of them attended public schools in Pendergrass (and not the Melvin part of Pendergrass), and they *all* received a learning opportunity at AISE that they would not receive otherwise. A handful may have excelled academically in the STEM fields on their own, had they found outlets in the city, but the majority benefited from the small class sizes, fully tailored curriculum, and family-oriented program that could follow them through their elementary school years. I do not know if it was James' big-picture gaze as the program director, not allowing him to experience AISE's classrooms in practice on a weekly basis, but he was unable to witness the extent of the academic diversity in his *second wave*. During the previous exchange where we shared our preconceptions about the students we either wanted or expected to be in AISE's classrooms, I also shared my classroom observations on his *second wave* and he accepted my assessment.

At the end of the day James and Dawn, the two staff members who most frequently reflected on the student population, felt that the program would be most advantageous if it was able to "blended" both waves. Concluding the above exchange, James reflected upon the impact AISE still made in the education of his bubble kids. Presented in prior chapters, program parents

[96] Those he felt most easily fell through the cracks because education policy and reform measures did not cater to them.

and one program graduate made clear (though uncomfortably in the latter case) that the unique learning experience received at AISE was not duplicated in their formal learning contexts. In this sense both groups of students, the *first and second wave*, could be James' desired "middle kids" – even if the "in-betweeness" that the status implied was broader than he originally desired.

Seeing the "Whys" Imbedded in AISE's Attendance

Towards the conclusion of an interview Sister Faqirah Abbasi reflected upon the centrality of creating opportunities for kids to "see the why," in the world around them. As a school teacher and mother of four she felt that kids,

> already ask the question 'why, why, why,' but it [AISE] just gives them the opportunity to really *see the why*…And you get legitimate follow-up at AISE…taking it past that 'Oh, go look it up' or something like that; to a 'Let's figure it out together'.

In the same way that this mother felt that AISE gave its younger kids the opportunity to engage their curiosities, the idea of "seeing the why" was also central to understanding how staff comprehended students' formal schooling experiences and how that then shaped understandings of the program's impact in their lives. There are extensive, interlinked, *"whys"* imbedded in how AISE lost its *first wave*, which fueled James' perception of the program's *second wave*. Multi-layered *"whys"* were imbedded in James' sentiments about the local community's investment in a STEM-based OST program. There were impassioned *"whys"* entrenched in James' fight to get his *first wave* back and blend them with his current kids. Finally, there were larger societal implications in *why* James made a distinction between his two student populations, when they both benefited from the learning experience received at the program. *Seeing the "whys"* present in who showed up on Saturday mornings was huge. It was rarely by happenstance that a particular group of kids did or did not appear. Attendance was regularly informed by larger

networks, policies, and actions occurring in the city, specifically in its inner-city schools, that informed whether or not a child signed in on Saturday morning.

AISE's Older Kids: The Instructors in the Classroom

The boisterous nature of AISE's youth was commonly met in program classrooms by two volunteer instructors who orchestrated their own world-wind, moving throughout the room to supervise the enactment of the week's experiments. As university graduate students, AISE's older kids could also be broken up into groups that I will designate as *core-value volunteers* and *non-core volunteers*. The former represented AISE's volunteers of color (regularly African-American students) whose presence allowed the program to enact a central tenant. The latter, as non-POCs, were still very much appreciated, but unable to offer the racial, sociocultural, and visual representation staff desired for AISE's youth.[97] This delineation, between core-value and non-core volunteers, corresponded with stark changes in the racial composition of the volunteer pool during the program's 5th year, which impacted the implementation of original programmatic objectives. However, the inclusion of graduate students, regardless of *core-value* status, in this partnership brought a commonly untapped resource off of the university campus. This section will not only introduce this resource, examining factors that led to graduate students successful inclusion in this partnership, but also unpack the work involved in responding to their change over time. Finally, investigating how these diverse individuals not only made sense of their own movement to enter AISE on Saturday mornings, but also how they then understood the impact of their presence in the lives of AISE's youth. Through this process, I intend for this section to

[97] With time, white female volunteers' gender, was constructed as a value-added component – as it did reflect a minority positionality in STEM fields that AISE's staff found valuable for its kids. However, this minority status, created by sociopolitical conditions in the education system and in the natural sciences, was not an original example of the diversity AISE's staff wanted to capture and expose kids to. Racial representation, which was always offered by male and female graduate students, was desired for AISE's youth from the program's outset.

contribute to the engagement literature by adding to conversations on racial inclusion and representation amongst the university actors who participate in partnership work.

When asked to reflect upon the university students present at AISE and how their schooling trajectories informed their volunteering, Dawn described them through the following profile,

> **Dawn**: I would say, uumm, they are in their programs for a total 5.5 to 6 years. And, as far as the best times to get them, I would say – they can come a little the first year, but the classes are kind of intense, they may be studying a lot.
>
> **Shana**: Okay
>
> **Dawn**: But there are many that make time. I would say the best time is post-preliminary exams.
>
> **Shana**: Okay
>
> **Dawn**: If you can get them when they are in their labs that's the best. They know that they have to go in. They know what they're doing. And then you'll have them fall off when they get ready to publish their first paper because they need to concentrate a little bit more, but they will stay in contact. Then they will be back in full-force after that period. And then when they start writing their thesis it will be a little less; then they will come back closer to when they finish up their writing.
>
> **Shana**: So it sounds like between years 3 to 6.
>
> **Dawn**: Yes, those are the prime years.

Dawn's characterization personified the majority of the volunteers I met at AISE. Outliers did exist. Those who volunteered more during their first year. Students who volunteered throughout their entire program. Or, those who picked up their volunteering towards the end of their studies, using AISE as a counterbalance to their thesis writing. By the time AISE's graduate students got to their benchwork (following their exams in the second year) they were commonly fitting volunteer work into 10+ hour days in lab. Beginning as volunteer instructors, AISE's graduate students used their volunteering to get at diverse ends. Every volunteer rooted their engagement in AISE's youth, wanting to make an impact in their learning. However, along with this

overarching desire, personal interests abound. For some, volunteering could become an outlet to gain teaching experience as well as an opportunity to engage with a larger public about science content. The latter countering what one volunteer described as scientists' poor communication skills, where "we aren't really good at explaining what we do to the public. So they get their science from movies and the television, or politicians – who are equally poor at understanding what we're doing we're doing.[98]" In both cases, some volunteers used AISE to learn to speak multiple science languages or code switch, as they left university labs to engage in scientific inquiry with non-science professionals. Along with these commonly noted personal gains, graduate students – specifically its core-value volunteers – rooted their involvement in shared positionalities with AISE's kids. This was an affinity framed either around shared lived experiences, the larger neighborhood that housed the program, and/or the impact of building positive associations with science content.

Blurring Lines: Between the Ends and Beginnings of the University and Community

The work-life-volunteer balance that Dawn spoke to was originally made by graduate students in two research labs – the Coltrane lab and the Gates lab.[99] The majority of these individuals where people of color, more specifically African-American graduate students. During my first trip to Philadelphia I visited Natasha's lab and was surprised by a photo that hung on the wall. It was a picture of the lab's members at a dinner. The photo consisted of more people of color than whites. It was an image of a research lab, in the natural sciences, that I never would

[98] "Zaineb Comber Interview" 2014, excerpt.
[99] As this chapter is meant to examine AISE's "kids" this conversation on university actors does not allow for the presentation of James Gentry. As university staff he does not fit into the chapter's construction; however, he was a central pillar of the university actors that entered this community site. And as an African-American staff member, who resided in the Pendergrass neighborhood, he was also a central example of the "blurred lines" argued for in this section.

have expected.[100] Founding volunteers such as, Natasha and Dawn indicated that these two research labs had an extremely disproportionate numbers of racial minorities compared to other biomedical research labs. These lab members consisted of its graduate students, post-docs, and staff. Of my interviewed participants, Natasha Rodgers and Samantha Edwards were members of the Coltrane lab. Dawn Henry, Lamar Lowry, Carla Perera, and James Gentry were all a part of the Gates lab. Collectives from these two labs produced the groundswell that propelled the AISE from an idea into reality.

As AISE grew over the next four years, so did its volunteer pool. Expanding to include two minority-oriented graduate student groups on Frankfield's campus, Increased Access for All and the Dudley Weldon Woodard Society. From this student population, AISE was able to meet one of its founding tenants – introducing area youth to scientists of color, who could act as visual exemplars of their own possibilities. The "scientists" of color who entered AISE overwhelmingly consisted of domestic minorities, a population that its founding staff felt would share affinities with Pendergrass' youth.[101]

[100] I always wondered if it was the two labs' focus on HIV (immunology lab) and SIV (a virology lab) research, diseases strongly impacting the black community, that resulted in the overwhelming presence of black graduate students. I do know that it was always Natasha's intent to conduct research in an area that was meaningful to the black community. She originally wanted to complete her benchwork in a sickle cell lab, but was told that there was very limited funding in the field and that it was not an advantageous field to lay her scholastic roots on as a budding scientist.

[101] Though not founding volunteers, non-POC volunteers existed at AISE from its early days. The majority of them came from the original two research labs. They were ushered into the program through peers/friends who got the program off of the ground. However, outliers, non-POCs who came to AISE via email communications at the time, were Mr. Marlon (the beloved sedimentologist) and a philosophy student who I never met. I also indicate "domestic minorities" here to further the point as to the uniqueness of these POCs in the natural sciences. People of color, coming from international communities (in particular Asian countries) are prevalent in the natural sciences, and Frankfield was not an exception. However, as these volunteers (from the original research labs, IAFA, and the Dudley Weldon Woodard Society) were composed primarily of domestic minorities there was also an increased awareness and shared affinity between these graduate students and AISE's youth. A commonality, or awareness, in lived experience that I would argue fueled passions to create the program and continuously invest.

Blurring Lines: Reasons for Investment

In interviewing AISE's *core-value volunteers*, they commonly framed their rationale for investment in ideas surrounding identity construction and the importance of science outlets. As a founding volunteer who grew to become a program director, Dawn felt that a desire to invest in the lives of local black youth was something that Frankfield's graduate students of color would be more prone to do,

> **Dawn**: [I] had been in graduate school and had found something that helped, you know, fulfill [me] even more. [talking about participation in AISE]
>
> **Shana**: Okay.
>
> **Dawn**: As a person of color, you know that we are definitely always a little more tied to our community than our counterparts may be.

Dawn framing investment in terms of racialized group identity was something that she hoped to capitalize upon when staffing the program. This logic was central when she took her concern to James about graduate students' disengagement with the surrounding community – living in an isolated Frankfield bubble. Dawn's assessment on racialized affinity supporting outreach was rooted in the logic of Mary Church Terrell's sentiment "lifting as we climb" (Terrell, 1898). It was a perception that all interviewed volunteers of color spoke to. As graduate students, they embodied this sensibility on Frankfield's campus through their participation in IAFA and the Dudley Weldon Woodard Society. Both groups were created to support the matriculation of students of color on campus, and viewed community outreach as a component of that maturation process. All of AISE's core-value volunteers personalized their investment (i.e. wanting to act as role models), with some making implicit comments about local connections (i.e. "I want them to

feel like they *know* people in their community who do this kind of thing and it's not just some weird person in a lab coat."[102])

However, it was AISE's black volunteers who made explicit reference to interlaced identities, references to a shared community, and/or a desire to create opportunities that they either had as kids or wished they had. These shared positionalities were presented by core-value volunteers during every trip. Examples of these rationales included,

> In my mind the point is to expose students to scientists that are similar to them, in terms of either shared backgrounds or how they look. The way that the program was introduced to me and the way that I continue to look at it is that a lot of the scientists that you see on television are usually white or male, male or female (quickly corrects himself). And very few minorities. Having hands on experience with scientists who look like them is really valuable. I never had that when I was young.
>
> Saleeban Funge, African-American male. 3rd year PhD student at Frankfield. 1st year volunteer during my 3rd trip

> Our role is as the facilitator of the lesson. We can interject some of our personal experiences in there, but it's really just to provide a tangible example of what can happen if you remain involved in science. James wants them to be able to see that someone, who looks like *you* can actually get to the *point* where they can pursue graduate studies in the sciences.
>
> Christian Skipwell, African-American male. 3rd year volunteer during my 2nd trip

> So I think for me it's just been the fun of interacting with the kids. And the sense of satisfaction in knowing that I am giving back to my community.
>
> Lamar Lowry, African-American male. Founding volunteer.

> The point is to show people, these kids specifically, that there are people out there doing what people say you cannot do, but you *can* do it too.
>
> Zena Porter, African[103] female. 3rd year volunteer during my 3rd trip.

AISE's black volunteers repeatedly extended the importance of their volunteering beyond academic gains for the program's youth, rooting their contributions in a racial impact. Even when Saleeban followed up the above point with,

[102] "Celina Santos Interview" 2014, excerpt.

[103] I use this broader term here because it was the term Zena used to describe herself. She used it repeatedly during our interview. She never denoted a country of origin on the continent. She also never referred to herself as African-American, black-American, or black.

> And I think that the more important part of it is to have access to people interested in science, and we are legitimate scientists. It's not just like a high schooler who is interested in tutoring, which is also valuable. But I think that career aspiration, that career step, is a little more added emphasis.

Saleeban explicitly emphasizing access to aspiring scientists, over the importance of their racial background, prioritized values at the program's core. However, within his pronouncement he still understood the importance of race and identity formation as components of the program's value. He recognized that AISE gave him an opportunity to present himself as a *black* scientist in the lives of AISE's youth. The volunteers' repeated references to race made clear that they understood the additional impression they could make on AISE's youth. This was an impression that extended beyond the personal, or a one-to-one relationship, and embodied a collective spirit. On the one hand, Zena and Christian spoke to this point by invoking a shared sense of self-determination, wanting program participation to help area youth overcome barriers posed by others or themselves. On the other, Lamar explicitly tied his reasoning for investment to the impact he wanted to make in his black community. It's important to note, that outside of Zaineb who was from this Pendergrass neighborhood, all references made by program staff and volunteers to giving back or investing in the black community were made in reference to the larger black race.

Along with wanting to help inform program youth's identity construction, AISE's core-value volunteers also regularly framed their investment in a desire to participate in programs that fueled budding scientific inquiry. For many this meant participating in a program that they wished they had access to during their own childhoods. Natasha most vividly made this point when reflecting,

> Overall, I just think it's a great program. And I think too, I think the things I like to get involved with are things that I am like 'Man, I wish that existed when I small'. You know what I mean? And it probably did, but you probably didn't have access.

Along with wanting to pay it forward by helping to give the next generation a dynamic learning context that they wished they had, some of AISE's black staff and volunteers could frame their investment in terms of continuing access. Serena Gordon, 4th year volunteer and IAFA president during my 3rd research trip, indicated the rare, but influential experience she had (with 9 others) in an elementary gifted program, rooted in science-based experiential learning. This was an opportunity that heavily shaped her general outlook on science and her participation at AISE.

> **Serena**: My teacher, she was very, have you ever seen the Magic School Bus?
>
> **Shana**: Yeah. Mrs. Frizzle.
>
> **Serena**: Yeah, that was my teacher out in Florida. She was like this older Cuban woman who was super lively. She was really curious and loved teaching. She loved us. So we would do things, like, every year we would get an egg and we had incubators, so every year we would see if we could get chicks. It never happened, but I can remember understanding the biodegradable process in, like, the 3rd grade.
>
> **Shana**: Wow
>
> **Serena**: Actually burying garbage to see if it would dissolve, degrade. So we did a lot of hands-on things in elementary school. It was a part of the daily routine. They would take us away from our regular classroom, and we'd honestly *play*. I think that is what makes science so attractive to me. Because it's always been my fun outlet; to do stuff and figure out what will happen…I noticed, I saw that it was such a small group of students that it was reaching. My brother never got, never had this experience. My siblings never had this experience – this sort of interaction with science. And they don't have the same conception of science that I have. They're like 'Oh it's hard. It's scary.' But its really not.
>
> **Shana**: You're like, 'No, its not; its Mrs. Frizzle!'
>
> **Serena**: *It's fun!* So I can definitely *see* the value in this program. Because while this was my norm, it was not the norm for the majority of the people that I knew.

This childhood experience, access to a hands-on science outlet, was shared by Zaineb. She attended a program similar to AISE in Pendergrass between 7th grade and her junior year in high school. Her program was the product of a university-community partnership, between the same Pendergrass neighborhood that housed AISE and Lincoln University. As stated, James too, shared a similar childhood experience, which fueled his desire to create AISE. As was his fate in Kalamazoo, Michigan he wanted to give kids an opportunity "to meet people you typically

would not meet, and see things you typically would not see." For Serena, she understood the rarity of her experience. Her own siblings were denied access to "play" as she did – and she saw a difference in how they connected with science content in later years. To James's point – meeting people and seeing things uncommon in one's environment, Serena became a next generation Mrs. Frizzle, in this Pendergrass neighborhood. She helped to open up a learning experience beyond 9 pre-selected "gifted" kids.

The Potential of Transient Knowledge

For all of the work that AISE's core-value volunteers, but specifically its black volunteers, did to reflect upon their positionality at AISE, they were not the only ones watching and commenting on their contributions to the program's enactment. An external gaze, evaluating AISE, its offerings in the local context, and its staff/volunteers was an ever lingering reality during my time in Philadelphia. The idea, in part, framed the first findings chapter. However, in terms of AISE's volunteers of color, Dawn encountered an external gaze in the city that has implications for the engagement literature – challenging commonly constructed divides between the university and the community within these partnerships.

Dawn, who by my 3rd trip worked locally in a bioresearch marketing firm. She regularly advertised the program when giving work-related presentations at vendor fairs and to perspective clients. She also frequently plugged AISE's programming when volunteering in the city at the Academy of Natural Sciences and the Franklin Institute. In this capacity she marketed AISE in the community, located new volunteers (e.g. Zaineb), and also came across individuals who she felt had competing priorities when it came to meaningful local investment.

> **Dawn**: It seems to me, in a lot of conversations I have, when someone finds out you're working in an inner-city space they almost want you to say you're from that place. Like they're looking to check boxes. Like, *check* you're an educated African-American, *check* you got your PhD from

> Frankfield, a premier institution. Great, *check*, you work with inner-city kids. Are you from Philly?
>
> **Shana**: Yeah
>
> **Dawn**: And when you say no it's like "Oh, okay' (stated as a letdown). It's almost as if they want you to have every single box checked.
>
> **Shana**: Yeah
>
> **Dawn**: Wait, it's like 'Why would you work with them if you're not from Philly?' (speaking from the perspective of the person questioning her intentions)
>
> **Shana**: Yeah
>
> **Dawn**: So I think, I don't know if that says a lot. I think it's normal for us [people of color or black people] to do that. I don't know. I think it's normal for people to do that in general. I guess that is something else I am recognizing, crossing that boundary – people who are not from here working with kids who look like them, but are from here.

Dawn's existential musing on her positionality as an outsider working with local kids was a part of an exchange we were having about boundaries and border-crossing. She was puzzled by other's issue with her, as a person not from the local context, interested in working with Philadelphia's youth. The individual Dawn is referencing in our conversation questioned her desire to cross a geographic border in the city, that for Dawn was less formidable. In her mind this local border was superseded in importance by a racial connection (personified in her "it's normal for us" statement) that reflected a shared lot. Within our exchange, I went on to trouble the logic implied by Dawn's interloper by arguing for the power of what I call *transient knowledge* within the larger black community.

> **Shana**: Yeah. I think about that as well, because I think that one thing people say is that people get an education and move out of their community.
>
> **Dawn**: Yeah.
>
> **Shana**: They wonder, 'How do you get people to come back and stay?' But I think in reality, even if you move out of your community, I think that for the large majority of African-Americans you move into a community that still looks something like your home community, just in another space.

Dawn: Yeah

Shana: So you may not return home, but you're going to return to another space that may be in need.

Dawn: *Yeah*. (firmly stated)

Shana: So, you're not, so the black community-at-large isn't necessarily losing knowledge.

Dawn: Exactly.

Shana: They are just moving to a different black community in another city or state.

Dawn: This is true. That's a good way to look at it.

This movement of black bodies in space produces *transient knowledge*. This is not an idea that I have tested. It is the result of more casual observations about migration, investment, community, and blackness. In response to this project, I have thought about it most regularly in regards to black college and university personnel (especially students) who migrate in pursuit of schooling or employment. Here, I framed transient black knowledge in response to the experiences of university members. However, I imagine it could be applied to any black population that relocates and looks to invest in their surrounding community. The point being, that black people's knowledge is migrating in space. It may not be returning home, but that does not necessarily mean its being lost. It may become concentrated in certain locations (e.g. major metropolitans, or college towns for a period of time), but it is not lost. In terms of students, faculty, and staff on college campuses, if they had a predisposition to invest in their original home communities, their relocation could result in investment in their new neighborhoods.[104] This was the case with AISE, transient knowledge that found a home in a university-community partnership.

[104] Depending upon the new context they find themselves in they may invest in their new context with no prior history of such engagement. However, in the case of AISE this was not the norm.

Through the transient knowledge exiting the Frankfield university, AISE offers an opportunity to rework notions of where the university and community commonly begin and end in the engagement literature. This is not a reworking of the partnership (and therefore its two sides) in the sense of individuals migrating from the local community, to the university (as staff or students) and back again to the community as volunteers.[105] This is community in the sense of the black community-at-large. In this instance the black population coming from the university rooted their engagement work in an appreciation for a collective fate with inner-city Pendergrass residents, specifically its youth. This was a fate rooted in different constructions such as, shared formal educational experiences and/or a shared impact regarding the limitations of race, representation, and access in STEM fields. Ultimately, the black population coming from the university constructed a sense of "us" with the youth they met at AISE and through their transient knowledge were able to invest in them in meaningful ways.

AISE's partnership throws common portrayals of community engagement initiatives (and their partners) on its head. The literature regularly features white university personnel (faculty, staff, and students) leaving campuses (through service-learning, outreach programs, and faculty-based research) to engage in inner-city partnerships in poorer neighborhoods of color. Through the migration of black university personnel borders constructed in the literature between town and gown, "us" and "them", more so dissipate. As AISE's core-value volunteers (and James Gentry) recognized a collective fate, this divide becomes blurred and black university experiences are centered in engagement work. Ironically, African-Americans are a population that has been present on American university campuses almost since their inception (Wilder, 2013). And throughout the 20th century, they historically fought for increased access as

[105] Though one of AISE's volunteers was from this Pendergrass neighborhood.

individuals, through the formation of departmental units on PWIs, and through the founding of HBCUs (Gasman & Geiger, 2017; Gasman, Spencer, & Orphan, 2015; Rooks, 2006). Though African-Americans are present on all university classifications (i.e. research institutes, liberal arts, polytechnic, and community colleges) as students, staff, and faculty they make up a dismal collection of the scholars producing engagement literature or the actors featured on the university side of engagement initiatives (Evans et al., 2009; Gasman et al., 2015).

In terms of actual engagement efforts, scholars and university practitioners, in this field, will serve themselves well by first acknowledging the presence and potential of black populations (and populations of color) and their minority-serving organizations as rich reservoirs on university campuses. Secondly, unpacking the experiences of black university personnel can not only introduce a commonly untapped population in engagement work, but also a population with potentially more personal connections to the partnering community – strengthening overall commitments in engagement work. Lastly, from a purely investigative stance, by examining new voices and outlets we can continue to problematize university experiences and potential intersections with surrounding communities in local engagement initiatives.

Blurring Lines: Growing, the Right Way

My 3rd trip coincided with AISE's fifth year of programming. After arriving in the city a few weeks prior, I walked to AISE from my apartment to attend the fall orientation session and was met with a peculiar surprise. After walking through the house's foyer and into the main first floor room, I came across a collection of women sitting around the table, James, Dawn, and an older African-American woman setting up to lead the session. To my surprise the collection around the table consisted mostly of young, eager-looking white women. It was a change in volunteer demographics that also surprised staff and led to a lot of meaningful work about

growing and what it meant to grow the right way. These exchanges commonly took shape with staff thinking, acting, and thinking some more – figuring out what they thought about the volunteers' present configuration and how they wanted to proceed with it. It was a process that frequently appeared in my fieldnotes from staff meetings and in interviews – with Dawn and I participating in such an exchange.

> **Shana**: So, I know that going into this year there was a change in volunteers, and volunteer demographics. So when I first said 'What's the program?' and you said 'We want to expose the kids to African-America scientists.'
>
> **Dawn**: Yes.
>
> **Shana**: In looking at what I believe are older pictures on the walls in the program. There's lots of African-American adults with African-American kids.
>
> **Dawn**: Yeah
>
> **Shana**: So going into this year, the volunteer orientation in the fall, it was like 'Whoa, there are a lot of white people.'
>
> **Dawn**: (laughter)
>
> **Shana**: So for the purpose and the intent of the program is something gained? Is something lost?
>
> **Dawn**: Yeah
>
> **Shana**: What do you think is going on?
>
> **Dawn**: Well,

In taking a step back, the fall orientation session was a success in many ways. There were 10 new volunteers present. They were all excited to volunteer and shared their joy in small group chatter as well as during session introductions. The prospective volunteers stated that they heard about the program through word of mouth advertisement from participating volunteers, from university listservs, and presentations given on the program by AISE staff. The session lasted approximately 2 hours. It began and ended with exchanges led by James and Dawn, with the majority of the session led by a retired city school teacher. Her orientation session content

centered on approaches to delivering science content to youth and classroom management. Questions were asked and answered throughout. Through their body language and chipper demeanor, I got the sense that the new volunteers left the session eager to get started. No one seemed overwhelmed by the program's expectations, and all looked forward to starting in the upcoming modules. However, when the house cleared out, James, Dawn and I looked at each other and shared our surprise by the strong shift in volunteer demographics. There were 4 volunteers of color (1 African-American and 3 Asian students) and 6 white volunteers. In the day's fieldnote I shared the sentiment that "[t]he room was full of white women, which really surprised me. I feel like the program could end up having a vibe that feels like school – black kids being led by white women. AISE isn't supposed to look like school in this way. James, Dawn and I engaged in surprised chatter about the racial makeup of the new volunteers. Our conversation included a few squeamish comments. And James exclaimed at one point in a loud befuddled tone, 'Wow, where was IAFA? Dawn talk to them.'"

The shift in volunteer demographics, at AISE's 5th year, in many respects made sense. The program was growing. They had gone through many school-year cycles, had a very well attended Science Bazaar that required a large volunteer pool from area universities and institutes, were plugged into different student organizations on campus (and 1 PI's lab), and had many satisfied graduate student volunteers to spread the word amongst their peers. As the program's 5th year unfolded our surprise by the collection around the table at orientation was not overstated. The fall module was led by an abundance of white volunteers, specifically white women. From interviews I learned that they came to AISE predominantly from the Opening Doors group (whose most assertive cheerleader was Luna Pedros), a graduate student symposium where Serena plugged the program while talking about IAFA, and the chemistry PI's lab. One volunteer

came because of word of mouth advertisement. And another, Jaime, came to AISE after intentionally getting put onto IAFA's listserv because it was a minority-oriented student group. As a white women, who wanted to participate in community programming, but had no ties to the community, she thought,

> If there were any student organization on campus it will probably be the minority professional student organization that will actually have some partnerships or relationships will some people who are trying to do this kind of work. I actually have not participated with the organization at all. I just got the listserv emails…And sure enough, they mentioned Dawn and AISE. And I was like, 'Yes! That's exactly what I was looking for back in Maryland.' So I jumped at the opportunity to do it.

With these new volunteers, I was curious to interview them to learn about their reasons for investment. What were some of the underlining ideas and motivations behind the excitement they illustrated during the orientation session? As the general desire to make an impact in kids' lives persisted with these new recruits, rationales for investing varied widely.

Non-Core Volunteers & their Reasons for Investment

The following volunteers rationales for investment illustrate the range in perspectives found in AISE's Non-Cores. The breadth of their *meaning-making* was vast – with one end of the spectrum centering on the self, through personal gains and the other end exemplifying an almost savior-like mentality. Beginning on the far left, Martin shared a rationale for investment rooted in a desire to gain teaching experience and counter a limited portrayal of science in the media. Martin learned about the program through an Opening Doors email circulated in his department. Teaching for the first time, he was excited to present science content to a population beyond bench scientists. He framed his potential impact in a desire to move away from societal portrayals that he felt were the product of a "culture that was starting to appreciate science more, and more – but in an aesthetic sense. Like people want to *see* science, not necessarily *do*

science.[106]" As stated in the first findings chapter, the *doing* of science was of central import to Martin. Through AISE's structured curriculum, created by science educators and individuals engaged in scientific research, he set out with the intent of helping young kids "get their feet wet" by centering his focus as an educator on the content's delivery.

> I like being able to rephrase the science side into pretty layman's terms, so a 5th grader can understand it, in a way where it's still concrete enough – where it's not vague or fuzzy. It's been a lot of fun. It's been very fulfilling. By teaching I am thinking about, the deeper part of the science and wanting to make sure that kids understand it – definitely, fulfilling is the word I would use. So I think any opportunity that I have to talk about science to people who are not also super entrenched in the deep jargon, it's a good opportunity for me. It helps me to think about what's the big picture? What's the summary? What's this really doing?

From our interview, conversations, and my fieldnotes, I got the sense that Martin was quite eager to volunteer and took his responsibility as an educator seriously. For example, he dressed the part of the polished instructor – volunteering in collared shirts and bowties. He volunteered much more regularly than staff intended (no more than twice per module), making reference in my notes of his very consistent presence over the weeks. As a more reserved individual who seemed to the most engaged when in class with AISE's students (even more so than with AISE's other volunteers), I got the sense that, overtime, he constructed a real part of his personal identity from volunteering.[107]

Moving away from personal gains, and to the middle of the spectrum, Jaime was concerned with representation in the STEM fields and creating inroads for youth of color into it. Like most individuals looking to volunteer, she was interested in a ready-made program that she could slide in to. She repeatedly described AISE as a dream program, marveling at its existence.

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[106] "Martin Rizzo Interview" 2014, excerpt.

[107] Towards the end of my 3rd trip, there was some chatter, amongst the volunteers, that Martin was transferring from Frankfield to another university in the city to complete his graduate studies. It came up during his interview, and he took his transfer as an opportunity to introduce AISE to another set of graduate students. He was very excited by the ability to QUOTE.

Amongst AISE's many rewarding features it's most central, for Jaime, was its potential to help diversify STEM's presentation on college campuses.

> I definitely see the program as trying to introduce science to, *impressionable children.* You got to get them when they are young. And just try to show them what's so great about science. So when they do go off on their own and get into middle school and high school, if it was something that they were interested in when they were younger, maybe they'll continue to like it. And then just try and grow, or increase, the amount of people who go into STEM, especially minority students. It's needed. The higher up you go (slight uncomfortable laugh) the less and less minorities there are. It's something that will hopefully look a little different when I am older.

Participating in an opportunity that could hopefully translate into long-term gains for STEM representation in higher education was a noble goal. Coming from Jaime, the assertion required that she see beyond her whiteness; her normative position in the natural sciences, to advocate for increased access and inclusivity. With this end in mind, Jaime dedicated herself to AISE's continued success – specifically through her desire to grow as an educator.

At the other end of the spectrum, the other extreme, were rationales for investing that either placed unrealistic expectations on AISE as an OST or volunteers' own abilities to close potential learning gaps in AISE's youth. Thelma Romp, was a first year volunteer who came to the program with a stronger teaching background than most. She was a creative and engaging educator who the students enjoyed working with. In response to an interview question about the borders (physical and psychological) that she crossed to participate in AISE's programming she shared a strong and impassioned opinion about AISE's ability to close learning gaps in its kids. She felt that AISE starting at 2nd grade helped its kids avoid a potential border, between themselves and comfort in the natural sciences. She felt that such a border would exist if the program were offered to high school students. She argued that it would have been harder for program volunteers to reach them because of the poor science education they would have received in school. However, by starting in the 2nd grade, through AISE, Thelma stated,

> I feel like I am just *snatching* them out of the cradle and now they will have the same experiences that I did. And they will have the same science education and background that I did. Then there is no border between us. No difference. Now maybe they will go to high school and they will go to college having a love for science and decide to pursue that.

The idea that AISE could make such a profound impact in students' lives – affording them the same educational outcomes as a member of the upper-middle class (Romp's economic background) – was uncommon amongst volunteers. This view sat towards the very end of the spectrum, but it was still on the spectrum and the sentiment crossed AISE's threshold on Saturday mornings. It was an unrealistic expectation to place upon staff, program curriculum, its resources, and its instructors teaching abilities. Though some parents may have wished for such an impact. I was taken aback by her statement. She spoke with sincerity, but ultimately illustrated a strong disconnect from students' formal learning environments and AISE's ability and *intent* as an OST. Her statement illustrated that she was unaware of the continuum of schools that AISE's youth attended. She probably would have been shocked if she overheard James' utterance that he was dealing with "middle-class stuff" – regarding the kids' socioeconomic and schooling backgrounds. However, the belief in ever-expanding gaps in student learning, in this instance regarding their science education, that would only grow with continued access to area schools was common – especially amongst AISE's non-core volunteers.

Similar to Thelma, Lydia also spoke explicitly about learning gaps. However in her case – the most extreme end of the spectrum – she spoke to individual's ability to close them. Lydia's complexities as a person and volunteer regularly surfaced as a dualism, where single sentences could include a compliment and an implicit insult. Words spilled freely during an interview, when describing the area that housed AISE, as "a poor neighborhood, with high crime.[108]" At

[108] "Lydia Wilson Interview" 2014, excerpt.

times she almost came across as self-congratulatory for maneuvering within a context far removed from her spatial norms.

> You definitely notice a difference, a change in the neighborhood, which is something I've known the entire time [since first coming to AISE]. I have friends who are like '25th that is super far away! *It's scary! How can you go there? You feel okay walking there by yourself?*' And I'm like, 'yeah'. I had someone hang out of their car window at 25th St. who was like 'Hey, want to buy some weed?' And I was like, 'No thank you.' [last sentence stated in an angelic tone]

In comparison to her "very well-off middle class background" and the educational opportunities it afforded at home and in her community, she saw AISE's kids as "severely disadvantaged[109]". This juxtaposition, between her socioeconomic and educational upbringing and that of the kids', was rooted in pity rather than contempt.

She grounded her perception in an exchange we both overheard between James and two 4th graders about potential science fair projects. During an introductory meeting leading into the science fair season, when asked what they were thinking about for projects one student stated that he wanted to make magic potions and the other exclaimed that he wanted to change his center of gravity. I held Lydia's interview months after this exchange, but the interaction stuck. She indicated firmly that she knew gravity was a force that could not be altered at age 9, correcting herself a few minutes later and saying by age 7. For her, this moment was a striking indication of where she saw AISE's kids at, in terms of their scientific knowledge. There was no room for potential gest in their comments, or the influence of theatrical crazes like Harry Potter and Marvel movies that could lead a 9 or 10 year old to make such statements. Her belief that AISE's youth (read Pendergrass' youth) had a severe *scientific delay* framed a core component of her investment in the program. It became her goal to transcend their formal learning and help

[109] Ibid.

them gain what she perceived to be lost time in their educations. She intended to show the children that,

> science did not have to be done in school and that it's interesting and exciting. If you create a school-like environment then, they're going to react the same way they would react to school. And often times, in particular for the kids at, you know, coming from the background that they are coming from - I can imagine that it's not a positive reaction. So I can, I'll never be able to give them back the time that they've lost, but I can at least bring them closer to where I think they should be.

An intent to contribute to student learning, through AISE, was noble. As the initial findings chapter illustrated, individuals' sentiments regarding AISE's impact in students' lives centered on exposure vs. supplementation. Arguments for AISE as exposure regularly removed any relationship to formal learning. And those who argued for supplementation constructed AISE as bolstering classroom learning. AISE, through Lydia's tutelage, could operate in *restorative opposition* to Philadelphia's inner-city classrooms. Here, Lydia's language implied that through her individual skills, she could rectify the situation. I do not think Lydia is taking liberties here with her word choice, personifying herself rather than AISE as the potential change agent. She regularly spoke in singular terms ("I" statements) verses collective ("we" or "us statements) when talking about educational gains for the students.[110] Finally, she concludes the above exchange with a self-possessed notion that she will also determine what is age-appropriate science content knowledge.

In taking the time to deconstruct this end of the spectrum through Lydia, my intention is not castigate her. Rather, it is to illustrate an instance of the baggage carried into AISE's programming that was a component of a well-intentioned volunteer. Accompanying the above rationale for investment were strong claims by Lydia for the value of informal learning

[110] The idea even surfacing when talking about co-teaching with her fellow graduate students, referring to them as "my volunteers" in her interview. And when correcting herself referred to them as "helping her."

environments as contexts where rich engagement could happen. She saw their dynamism as having greater impact than formal schooling, an understanding that stemmed from her own educational experiences. She made clear that her intention, as an educator, was for the students to feel comfortable with science content. She stated, "I want them, more than anything, I want them to learn but I want them to have fun. I want them to have lots of fun while learning so that they remember the *fun* and not that it's hard." The dualism in Lydia's disposition was present in her reasoning for investment. As this quote indicates, she had a clear understanding of how she wanted the content to be received as well as what she felt was a clear understanding of the kids' educational backgrounds. These dual motivations were something she felt well equipped to respond to. However, Lydia, like all people, continuously made sense of the world around her in response to her lived experiences. And these were realities rooted in both substantive events and sociocultural conjecture, a dualism that she carried into AISE's house.

The rationales for investment that brought the second wave of volunteers to AISE varied widely. Everyone who walked through AISE's front door intended to make an impact in the lives of others. The large majority volunteered because they intended to make an impact in the lives of area youth. However, some, like Martin, were excited about making contributions to the general public's understanding of scientific injury, making AISE's youth the lucky recipients of his personal mission. However, it was clear that there was a mental shift in perspective with the non-core volunteers. This shift existed amongst non-cores present at AISE before the program's 5th year. Again, it was the increase in their numbers that made unpacking their varied reasonings for investment that much more crucial. The non-cores still looked to make meaningful investments, but they infrequently grounded them in any type of shared connections with AISE's youth. Even if non-core volunteers grew up in different neighborhoods, with commonly better resourced

schools – personal connections could be rooted in other sociocultural experiences such as, gender, family, and personal interests. However these linkages, with AISE's youth, were rare. Thelma was actually the only non-core volunteer to make a personal connection to AISE's youth in an interview, reflecting upon the importance of intimate learning opportunities for girls in science. This was a positionality that would be at Thelma's core, as she came to AISE through Opening Doors. AISE's non-core – or white volunteers – regularly presented themselves as making connections in the lives of *other people's kids*.

These insights, especially those presented on the far right end of the spectrum, were never known by AISE's administration. They did not come up in classroom proceedings or casual exchanges. Though Dawn and I grew to become quite close and she shared, not so much her suspicions, but her curiosity as to why individuals (in particular some of the white graduate students) chose to volunteers. I do not believe she ever gained "why I invest" answers from *any* of the program's newer volunteers. From the perspective of AISE's administrators, they were met each Saturday by committed volunteers. They were individuals who entered the house with warm smiles, assertive dispositions, and an excitement for AISE's programming. The non-core volunteers, like the core-value volunteers, had excellent scientific knowledge and varying levels of prior teaching experience. From participation in previous STEM-based OST programs (as students and instructors) some of the non-cores entered AISE with the most developed teaching skills I saw.[111] They were committed to engaging with the students, relaying program lessons, and participating in different facets of AISE's programming (e.g. science fair projects and the

[111] By teaching skills I mean the ability to clearly moving through the sections of the weekly lesson plan, relaying program content in age-appropriate language, good classroom management skills, good physical and vocal energy when working with the kids, and the ability to problem-solving quickly on their feet. Other staff, definitely illustrated these skills in classroom observations, and talked about how they developed them overtime from working with the program. But some, not all, of the non-cores had these skills from day 1.

Science Bazaar). Some, like Lydia, Martin, and Jaime, seemed to find a sense of home or belonging at AISE – volunteering much more than was recommended and participating in different facets of AISE's programming. However, the non-core volunteers' rationale for investing marked a clear shift in why volunteers engaged. In some instances, for me as an outsider, calling into question whether their intentions were always to empower young people or save them? Leading me to wonder, if the two ideas are mutually exclusive? Or, if they should be in an OST programming, meant to serve a racial minority group?

Blurred Lines & Growing the Right Way

This examination of AISE's graduate student population is not meant to present monolithic constructions of the program before and after its 5th year. Graduate students of color – core-value volunteers – were present throughout my entire tenure in the city. As students graduated or stepped away because of the intensity of their studies, others came in their place. For AISE's black volunteers, they were always present and IAFA remained the main site to usher them from campus into AISE. White volunteers were definitely present prior to AISE's 5th year. The most visible being the beloved sedimentologist Mr. Marlon, graduate students from the founding two labs, and students Luna shepherded in from Opening Doors over the years. However, by the fall of AISE's 5th year the overall numbers and the visual make-up of AISE's classrooms had changed. Dawn, on the one hand, rationalized the shift in constructive ways,

> It's a good thing that more people are finding out about [AISE] and feel inclined to volunteer in a program like this. I do think it's very beneficial to have the students interact with African-Americans and people of color who are also scientists; and I think we do get that. They are not diluted out. However, I also think it's important for them [the students] to experience people who don't look like them, but *also* care about them. These kids may not necessarily develop a genuine relationship with a white person, or someone who is Indian, or someone who is atheist – and I think it's always important to experience diversity in different ways. So I think that it is all helpful to them.

In this exchange, Dawn felt that AISE's changing volunteer pool opened up new experiences for the kids. I believe it was thought that these relations had the opportunity to genuinely grow because of AISE's small size and consistent programming. However, our exchange and Dawn's comments above reflect the crossroads AISE was at. Staff embraced the diversity present in their volunteers, especially the various skills and experiences they brought to the table; however this did not stop them from simultaneously making sure that AISE's emphasis on access to scientists of color was not lost. This meant returning to IAFA. For the first time, James and Dawn made a strategic pitch to solicit volunteers. Dawn shared the encounter with me; where the intent was to stress the importance of sustaining the linkage between AISE and the student organization as well as recruiting new volunteers.

> **Dawn**: Yeah, so we went in and just talked to them about the natural history of the program. And why it was important – what it was really about. What it meant, giving them a face of someone who had been in a same situation as them.
>
> [7 second break in the transcript]
>
> **Dawn**: And I don't know, I guess pull at the heart strings a little bit.
>
> **Shana**: (laughter) Come on black people!
>
> **Dawn**: Come on black people, *y'all know y'all want to be here*!
>
> **Shana**: (laughter)
>
> **Dawn**: So, I think that was part of it. I think what was really helpful in that talk was having other volunteers there who could, who could chime in who were very active in the program. And that really helped people sign up on the spot and to not be afraid to do it.

Though I made the initial reference to black people, Dawn agreed. The humorous nature simply reflected our rapport, but the desire to explicitly solicit black students was genuine. There was always a particular university student AISE was after – AISE's staff were looking for black graduate students to make a consistent investment into the program. And on the Saturday following this Thursday IAFA meeting, there were 2 new black male volunteers from the student

organization. I was surprised by the instantaneous feedback. I ended up standing next to Zena Porter during the opening session and shared my surprise with her. I was taken aback by her response, which I recorded in a field as "She stated that an announcement was made that ASIE wanted more black people and so they came. It was very matter of fact, kind of annoyed (maybe). Not neutral, maybe a bit of sarcasm?" She had no way of knowing that I was fully aware of Dawn's IAFA presentation, and discussed it before and after it took place. She thought she was talking to someone completely disconnected from the event and shared her unfiltered emotions. At the time I was not completely sure how to take her tone, but with time (especially following her interview) I came to believe it was rooted in an expectation that she did not feel IAFA's members were fulfilling.

When *Growing* Is Outside of Your Control

Following this IAFA meeting, Dawn felt that such contact – meant to reinforce relations between the two entities – was needed each year. I believe the fall orientation session was the first indication that actual work was needed to maintain a linkage with IAFA. That the student organization that had been at the heart of AISE's formation was removed enough in time that ties, between each entity's leadership, could not be assumed. Students had graduated and leadership had gone through enough cycles that historical memory, of AISE's early days, was not a reality for most. Though this would become another task for an overextended program administration, it seemed to be a necessary undertaking, if AISE's staff wanted the program to be a place that united black youth with role models of color.

The maintenance of this bond was questioned in interviews with long-time IAFA volunteers, in particular Zena. She not only called for it, but also questioned the intentions of AISE's white volunteers.

> **Zena**: And I think it's important because, I think when AISE started, the whole point was for these kids to see people who looked like themselves in this role. It's not, I don't think that it's bad, like you said to diversify, to make sure that you can have different races and different sexes doing this. But the grassroots was always for these kids to see people of color doing this.
>
> **Shana**: Yeah. That's huge.
>
> **Zena**: To me that's ***very*** effective.
>
> [10 second break in transcript content]
>
> **Zena**: Yeah. And I think that if you really look at, in terms of maintaining volunteers, the highest retentions are in the black volunteers. You know, you will have the white volunteers and the whoevers and they come in! And they here about the program and they are very excited by it, and then it fades because there is no real connection with these kids. There is no real, anything. Just that, 'It's cool. It's such a great idea!' Of course it's a great idea! But there is a little something *more* for us who have done it for A) a little bit longer and B) feel this *actual* connection to the kids.

Zena clearly made strong delineations amongst the volunteers. She measured investment, in part, upon notions of race and the inherent connections she felt they produced. Later in her interview, she also acknowledged the impact of gender, giving a brief nod to the potential of her white female counterparts to make a genuine connection with the kids. However, she quickly concluded that the most impactful gendered encounters she had were made by black women, rather than simply women. Zena was the most explicit volunteer I encountered, when it came to their thoughts on the changing volunteer pool. From our exchanges over the course of my 3rd trip, I do not think her insights were ever based on more than speculations, but her conjectures sharply shaped the views she held of her university compatriots.

As my 3rd year came to a close, I learned that IAFA's mission was in the process of transforming from a minority-oriented student group to a group for students of color and their allies. Serena was at the helm of the organization during this transition and it came up during a spring interview. She was more constructive about the program's evolution. Arguing that IAFA's numbers were always low and that the she had no concern that those coming to the program as allies would have an issue with IAFA's longer history. Others; however, were more hesitant.

Dawn, as a Frankfield graduate and former IAFA board member, pondered what this shift in program framing meant for current students of color.

> **Dawn**: I think it can be, you know as an African-American myself, I do struggle with trusting certain opinions around my counterparts, but not because, not, not racist opinions. Just like, venting about something that you know was *so* racist.
>
> **Shana**: Yeah
>
> **Dawn**: You want someone who understands, but not someone who necessarily empathizes. You want the person who is like 'This happened to me'. There are times when you just want to have that conversation. You don't want to have the 'I'm sorry that happened to you' conversation.
>
> **Shana**: Yeah
>
> **Dawn**: It's just, that can be even more frustrating. You know they are trying to understand, but they really can't. And I think there are different issues that an African-American scientists are going to have.

As a researcher I was concerned, foremost, for the impact IAFA's transformation would have on AISE's programming. The necessity of staff having to go back to IAFA to maintain relations and solicit volunteers was just realized. Dawn and Serena understood that IAFA was at a crossroad. Like Dawn, I did wonder if the culture and sense of home graduate students of color had at IAFA would be lost. Would the number of students of color in the organization dip? This was another instance of AISE's ability to *grow the right way* – of their own determination – challenged by external factors. In this sense, the execution of core program principals were not completely in their control. Staff, parents, kids, and volunteers could all have desires and expectations for the type of programming and interactions they felt should happen at AISE. Yet, as this instance exemplified, existence, and therefore growth, was a process riddled with potential growing pains.

This chapter presented AISE's kids. A population that extended beyond its youth, to the two collectives who gathered in AISE's classrooms. AISE's students, big and small, were populations that staff had pre-determined prior to the program's first Saturday session. This was because, for many, AISE was supposed to make a particular impact in either this Pendergrass

neighborhood, or the city-at-large. And in response to this strategic planning, this dissertation is able to make thoughtful interventions into the engagement literature. AISE became a site to witness the impact of university members of color, specifically African-Americans, not only enter a university-community partnership, but exist at its center. Their presence both expands and challenges common constructions in the engagement literature. To the former, AISE's partnership contributes to scholarship featuring university personnel of color, arguing for an expansion in prevailing constructions of viable university actors able to engage in community programming. To be clear, the entire graduate student population that crossed AISE's threshold expands the literature on available university actors for partnership work, as graduate students in general are rarely featured in this literature. However, AISE's university personnel of color added another layer to their engagement, through their race. Through the specific presence of African American university personnel, *and most importantly* the sentiments they held towards the impact of their engagement – created an opportunity to challenge, or blur, common divides created in the literature between university and community actors.

AISE also created an opportunity to witness staff, James in particular, fight to maintain his student-body and the mean-making he intended to engender through AISE's presence in this inner-city neighborhood. AISE's students evolved in response to various, often competing, forces in the city. James' futile efforts to secure his initial student population provides an opportunity to unpack formal schooling features that are creating wedges between learning centers in this inner-city neighborhood. A rift that I argue is the product of risk factors that can be associated with severely struggling inner-city schools. AISE's second wave of young people created an opportunity to examine James' mean-making and how his new kids bumped up against his notions of place and place-making at AISE.

For both student populations growing pains ran rampant, and major shifts in their make-up took place overtime. These realities impacted individuals, foundational program objectives, and led to more divergent understandings of the relations between AISE's big and small kids. More than anything it was clear that change was commonly outside of the control of AISE's staff, volunteers, parents, and kids' hands. Therefore AISE's ability to grow was not always on insider's terms. AISE existed in a nested context, that was ever ready to push and pull – placing demands on its programming. A boxing match where AISE's staff, at times, mustered successful counter punches, or managed through persistent body-blows, but other times had to come to terms with being sucker punched in the gut.

CHAPTER 8: CONCLUSION

This site, and all of its programming, took shape because of skills, networks, and resources found on both sides of the partnership that sat at its core. In terms of day-to-day operations, I imagine that no one knew this reality better than James and Dawn, the centerpiece of the program's administration. They were actors, who in different ways, had a foot on either side of this university-community partnership. One of the central interventions that I hope this project made was the point that *community* and *university* actors were equally essential to the formation and maintenance of this program. I intended to counter implicit (and at times not so implicit) constructions in the engagement literature that present the community as empty or unable to bring the riches to the partnership that their university counterparts bring.

A central component in illustrating this intervention was unpacking the capital mobilized to sustain programming. From the university side, the usage of backdoor capital, which helped AISE administrators maintain control over the *university* that came into this community setting was vital. This backdoor capital was the product of more informal channels, resulting in commonly untapped university populations entering this community site. This movement from the university into the community was largely informed by both race and social bonds. Racial affinity, that transcended a city's fragmented terrain, was at the heart of this partnership and the program's formation. It greatly informed graduate students of color's investment (the bulk of program volunteers over the years) and seemed to sit at the basis of much of James' movement in the community. James rightfully referred to himself as a conduit on different occasions, exemplifying the divergent bonds necessary to unite the diverse people and resources found at AISE – moving them from one geographic fragment in the city to another. For example, he was instrumental in ushering unfamiliar university members into a part of their own Pendergrass

neighborhood that was regularly constructed on campus as off-limits. This project also presents university collectives rarely found in the literature, actors whose advanced education and training, and for many racialized lived experiences, helped to foster deep engagement. From the community side, appreciate the foundational resources that local residents brought to the partnership, required seeing the rich diversity found in this inner-city black community. There was great capital (e.g. material and social) amongst community members. For example, local residents provided the literal site to house the program, strong advertisement networks, and the program's initial curriculum. These program features were the product of black parents, school personnel, and religious clergy. Presenting this partnership, built upon more equitable engagement practices, expands common partnership constructions within the literature. To this end, this project features the voices and agency of actors – who comprise one side of the partnership – but are commonly muted in the literature.

Though I hope this analysis contributes to scholarly efforts to expand constructions in the engagement literature by unpacking resource mobilization initiatives and strategic brokering in the city, it also presents a site in flux. The quest for true sustainability (most readily witnessed in paid administrative support) was allusive, as was parents' desire for increased involvement, professional development for graduate students who were asked to simultaneously be "scientists" and teachers, as well as James' desire to forge genuine social interactions between graduate students, parents, and the church community. These unfulfilled program features are part-in-parcel of this dynamic partnership – illustrating its piecemealed-nature. AISE, the product of complex intersections, was always in action. Its participants, especially its staff, were regularly bombarded by the work involved in maintaining weekly programming. They had little opportunity to reflect upon what they were co-creating. They appreciated my presence because it

asked them to stop and reflect upon their work, and through our conversations they received insights on program practices they had not considered.

The ability to unpack the messiness imbedded in their practice, was heavily shaped by my positionality as an ethnographer. Ethnography allowed me to witness – from participants' diverse perspectives – what it meant to build. The work involved in brokering resources for community programming – a process routinely fraught by dynamics internal and external to the program that were beyond their control. Ethnography allowed for another layer of understanding, gaining insight from the ability to not only witness participants in action, but by the enriched insights gained by immersing myself (through invaluable trust) in the weekly practice of their program. As a scholar, with the goal of returning to the academy to contribute to conversations about equitable partnership practices – the product of rich resource mobilization efforts.

Along with contributions to the engagement literature my methodological and theoretical framework were central in examining the complexities of producing place. Place is a tangible location to gather in, and AISE – as place – was made and remade as participants walked across its threshold each week. They not only carried rich capital to support the maintenance of the place, but also baggage. The latter rooted in their lived experiences and perceptions (real and imagined) of themselves and others. This *place* was made through routine, through experiences, and therefore through individuals' meaning-making. As all places are endowed with meaning, this program, in one sense had an agreed upon purpose – bringing science content to inner-city youth. However, for the various participants it was also enshrined with other meanings that reflected individual's positionality in the larger world. For example, for its kids (big and small) it was an educational fixture in their lives. It was a place to learn through play, a place to support other's learning as a role model, or a place to grow as a scientific professional. AISE also took

on personalized meaning for many of its parents who found in it a place of respite, as they shared down-time with other parents. AISE provided an opportunity to unpack some of the complexities imbedded in place-making. Through my findings chapters, I hope what surfaced is an understanding of place as situated, evolving in response to internal and external pressures. Place, as the product of diverse people with various forms of capital – one of the most critical being time. And with the shift in volunteer demographics experienced during my 3rd trip, a need arouse to problematize meanings of place thought to be foundational to program operations.

This examination of place-making was informed by theories and concepts, some of which evolved with my graduate school journey, but were always rooted in the centrality of geography. Geography, in this instance an inner-city landscape, was never a neutral backdrop. The city and often its fragmentation played major roles in constructing participants' ways of knowing ways. The most readily apparent constructions probably being those held by volunteers. However, the city's geography informed the movement and thinking of all program participants. For example, geography informed AISE's parents' intent to enroll their kids in this OST program. And for staff, it helped to shape the type of impact they felt AISE made in the city. Spatial theories were a way for me to root the impact of the geographical context, with social and temporal processes. The three coming together for Edward Soja as, the triple dialectic. More work can definitely be done with the collected data to rigorously situate the role of geography in the formation of this site and how it informed participants' perceptions. For now, a spatial theory coupled with my key terms provided a way to introduce the centrality of this inner-city landscape into analyses on place-making.

Unpacking the site's operations by examining the meaning-making of its participants, presented an opportunity to witness a rich interplay between diverse, at times divergent, forces.

The toiling of the collectives who crossed AISE's threshold – parents, youth, graduate students, school district personnel, and community residents presented an instance of both the commitments and possibilities imbedded in the urban landscape to support educational programming. This conception of the urban context – comprised of dynamic players, strategic mobilizing, and academic community-based programming are more remiss in the urban schooling and reform literatures. As reformists and politicians come and go in our educational arena, with various competing priorities that don't always center on classroom conditions, local actors will continue to respond to local educational needs. These forgotten stakeholders' investments' will include the messiness of their (mis)conceptions of places and each other, intricate financial arrangements, and the marshalling of local expertise.

Implications

Project interventions can support diverse communities. The most central being academic scholars, university administrators, and engagement practitioners. Though there is some overlap in takeaways for these communities distinctive gains reflect the unique expectations placed upon each collective.

Academic Scholars

This study's implications most readily speak to scholars invested in community engagement scholarship. As indicated in my literature review, I intended for this project to specifically contribute to scholars and scholarship related to OST programming. With this community in mind, my central contribution was to examine how resource mobilization efforts in university-community partnerships support the production of inner-city educational programming. Equitable partnership practices were a central pillar in this program's operation.

Power-sharing, especially amongst program administrators, was at the root of their equitable practices. There is a lot of discussion within the engagement literature about the need for more equitable practices between partners, but fewer instances of its actual enactment and maintenance. In AISE's case, equitable partnership practices were squarely rooted in the egalitarian nature of its administration. Program leadership always included actors from both sides of the partnership, or single individuals rooted in both the university and community. Knowledge – as material resources, networks, or expertise – were understood as something that all carried. Since there was no strong interest from any one administrator to establish themself as the expert, and then steer the partnership, I would argue that a democratic spirit was able to permeate amongst program participants. I believe the egalitarian nature of its administration stemmed from the fact that the partnership tapped nontraditional university channels, bringing individuals into a community setting with no professional ties influencing the partnership's shape. Program administrators from the university included, a university staff member (who was also a long-time community resident) and graduate students (one of whom ended up living in the Pendergrass community that housed the program). I argue that these nontraditional actors, who supported democratic leadership practices, ultimately encouraged an increase in community voices and perspectives in the program's operation.

Though faculty who regularly participate in university-community partnership may intentionally, or not, shape partnership processes to meet university objectives, I believe they can still benefit from examining the partnership presented in this project. As the research featured community voices and argued for the centrality of community-based resources in engagement efforts, hopefully the project can help academics see more of the assets present in communities. In response, come into a partnership with the intention of finding ways to share more of the

power in managing the engagement initiative. For example, placing community actors in legitimate administrative roles will keep their voices and perspectives at the forefront. Working closely with community actors means you will end up hearing community perspectives, which can also help scholars keep community needs from the backburner within their own research imperatives. In instances where a scholar's fieldwork is rooted in observing an established program (like this project), sharing their findings while in the field is a way to incorporate community knowledge into the research enterprise. The act is predicated upon seeing value in community members' insights. Again, hopefully this dissertation can help such scholars better understand the rich perspectives community members can offer their research. I am not referring to utilizing community actors to engage in member-checking or to triangulate data, but appreciating their ability to enrich a research project and its findings by asking community members to help unpack instances of the collected data or share their perspectives on budding arguments. Ultimately, community members would be contributing to scholar's understanding of the research endeavor. This is work that scholars regularly do with their academic peers during seminars, conference presentations, and in casual exchanges over coffee. Community members, like a scholar's peers, are not co-producing the work, but their perspectives are valued enough to influence how a scholar is thinking about or framing an analytical argument.

Office of Community Engagement

Administrative offices on university campuses that support engagement efforts have been a fixture for decades. There main functions including: acting as "middle-men" connecting university and community actors looking to engage in partnership work; holding seminars often surrounding "best practices" meant to foster equitable relations; soliciting faculty to incorporate service-learning initiatives into their classes; and conducting their own partnership

projects/studies in local communities. This project can illustrate for such administrators not only the value of, but also how to tap into backdoor capital on college campuses. As this project illustrated, connecting with graduate students through student organizations can bring individuals with advanced training, who are on university campuses for extended periods of time, into community settings. Reaching out to mission-oriented groups that tend to have outreach components built into their programming means administrators can connect with student populations who are already committed to community engagement.

Practitioners

I am sure that the large majority of practitioners who lead community programs will not read this document. More than any other reason it is because they have no idea it exists or have the means to access it if they did (i.e. via a library database, academic conferences, or traditional scholarly publications). As the engagement literature, and this project, make clear is that program administrators are often in the trenches, focused on program operations. Therefore, the dissemination of ideas presented in this project, to this target audience, is on me. I have to find ways to get these findings into the hands of individuals engaged in this work in urban communities. I can begin this process by presenting my work at practitioner-oriented conferences (something I have done with AISE administrators), share it in practitioner-oriented publications, and give presentations through university Offices of Engagement. I hope that this research will help them navigate campus channels that can be more elusive. Practitioners can most readily connect with the backdoor capital presented in this project most readily by conducting internet searches, looking for organization websites. As an aside, I have located all of the graduate student organizations that participated in AISE's programming through very general

google searches. I used the following search terms: "Frankfield University[112]", "graduate students", "STEM" or "science" and "outreach programs." Every group had an up-to-date website and contact information. Graduate student organizations would be a way to not only acquire volunteers, but specifically those with a shared affinity – the latter potentially influencing their level of commitment. During this process practitioners can also become better acquainted with students' unique "university profiles" learning the best times to obtain a given student population. For example, AISE successfully recruited graduate students because staff made sure programming took place at a time convenient to their schedules. In this case that was Saturdays. AISE's programming did not compete with the time students were traditionally expected to be in lab (Mon. to Fri – all hours). Obtaining such insider-information, would be essential to acquiring doctoral students to support a STEM-oriented community program.

Study Limitations

Hindsight is 20-20. And though I entered this community program on multiple occasions, enriching my investigative prowess each time, upon reflection there are still things I would have done differently. Many of these insights were not made until I moved beyond preliminary data analysis and was formulating the actual arguments for the findings chapters. The study's limitations regard voice and representation, and resource mobilization.

Voice and Representation

Though this study was predicated upon invaluable focal participants (initially Natasha Rodgers and subsequently Dawn Henry and James Gentry) study participation was open to all at AISE participants. It was important to me to gain these diverse perspectives because I was

[112] I used the actual university's name, not the study pseudonym.

interested in understanding how the various collectives who crossed AISE's threshold made-meaning out of their participation. However, in capturing participants' voices and experiences I did not end up with many adult male perspectives from the community. There were many male volunteers featured in the collected data (captured during the 2nd and 3rd trip) and James Gentry straddled both sides of the partnership, but few men from the community. In part, this was a harder community to capture. As the bulk of my interviews and participant observations program parents occurred during the latter part of my third trip, I had a smaller window to capture parents' experiences. I made sure that I had developed strong relations prior to asking any parent to sit for an interview or be the focus in my participant observations.

There were three men, two fathers and an older brother, who all had ties to the program. 1 father (Mr. Leonard) and the older brother regularly attended during my 3rd trip. I should have done more to reach out and connect with them. Connecting with the fathers would have required James' assistance. One father, Aaliyah's dad only came during the science fair season (and not weekly, as her mother came as well) because his daughter had graduated by my 3rd trip and only participated in AISE's programming, through the science fair. James always stated that Aaliyah's father was very invested in her staying connected to the program, because it was a supportive STEM outlet. The other program father was a more conservative Muslim man (Mr. Leonard) and did not have interactions with adult women outside of his immediate family. As AISE's *second wave* grew in age, this fact – intersexual social interactions – became a social custom AISE had to respond to. It was very helpful that AISE was run by a man (James) and a woman (Dawn). To this point, if I wanted to interview Mr. Leonard, I would have had to give him a list of questions to respond to. I did speak with James about doing this, and he felt that Mr. Leonard would have been happy to share his insights. I interviewed his wife, I interviewed one of his sons, and

worked extensively on an administrative project with his daughter. However, I did not follow through. As result of not connecting with any of these individuals this project only features one program dad. Again, there were many more mothers than fathers present at AISE, but that should have been more of a reason to capture male insights. It would have been fascinating to learn what they thought of the program, their children (or sibling's) participation, its value in the community, and their expectations for it – especially because they were all a part of the program for multiple years.

Though I interviewed 8 program kids in 6 interviews (2 interviews included sibling pairs) I only featured 1 student in the actual dissertation. There is an extended excerpt from a fieldnote in the third findings chapter that features an interaction amongst a group of 2nd graders. However there is only one instance where a young person's voice is used to advance an argument. I think the dissertation's overall analysis could be strengthened by the incorporation of more of AISE's youth. The interviews I collected included many sweet or funny moments, as all of the kids enjoyed being interviewed. However, there were less moments that related to the developed themes in the three findings chapters. I do think the age of the program's youth made it difficult for me to extract thoughtful moments or exchanges. We laughed and had fun together during the interviews, but I was less confident in my ability to extract strong themes. However, as many scholars – Dr. Dyson included – craft rich prose from the voices and experiences of very young people, more than anything I think the absence of program youth's voices in this document is a sign of novice-ness as a researcher. The capacity to both insight rich data from kids (produced in observations and interviews) and incorporate it into my analysis was challenging. Because of this limitation in my abilities as a researcher, I feel I should have made more of an effort to speak with AISE's older kids and its recent graduates. I did attempt to connect with a 5th grader, who

participated in the program from 2nd grade, but she declined an interview. I think program graduates would have been a fascinating group to connect with. They would not only have insights about their program participation, but could also speak to how, if in any way, participation had relevancy to their present learning. What did participation mean to them? How have they carried it forward? I would have needed James to connect with this population, but I think they could have shared valuable information about their time in the program.

Resource Mobilization

Data collection was obtained during AISE's primary program function – its Saturday program. Many rich observations, interviews, and casual exchanges were witnessed through these program proceedings. This is the heart of AISE's programming. However, it is not the only part of AISE's programming. Along with examining the resource mobilization required to maintain the program, different processes and channels were required to maintain science fair participation and the biannual Science Bazaar. The former, which I did witness, could have been a more purposeful exercise had I followed the weekly meetings of a single student (or 4th grade pair), volunteer mentor, and program parent – who were completing an actual science fair project. Seeing how this smaller unit galvanized resources to produce a project would have been a nice process to observe. The examination would have begun with initial conversations between volunteer and student about the student's interests and project ideas, concluding with their actual participation at the city fair. Commonly science fair participation was an involved process. It required work throughout the week as well as additional time spent with their mentor after the main Saturday program. Science fair participation marked the first opportunity that program kids had to flex their *scientific chops.* A budding investigative journey slowly molded through the

various experiments completed in the main Saturday program – beginning for most in the 2nd grade. It would have been an intimate learning process to witness, spearheaded by AISE's youth.

Witnessing the enactment of the biannual Science Bazaar, undertaken for the second time during my 3rd trip, would have marked another opportunity to examine a different take on the mobilizing needed to enact AISE's programming. The Bazaar took place in one of the two gyms at the church. It included approximately 12 to 15 stations geared towards kids aged 5 to 14 (elementary and middle school students). It also featured a poster gallery and presentations by AISE graduate students. Though I did attend the Bazaar (returning to the city for the event) I was not a participant observer for the planning process. I was in town for the very beginning of the planning phase, but left in June (AISE's Saturday programming had concluded in May) to teach in upstate New York. Having the opportunity to witness how the various resources were galvanized for this community event would have been fascinating. The fair required AISE's administrators and a team of volunteer graduate students to organize an effort that united STEM departments and student organizations from various universities and a medical school in the city. It also included booths run by volunteers from science institutes in the city such as, the Academy of Natural Sciences. The ability to bring these resources into this inner-city space was impressive to witness.

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APPENDIX A: LOCATIONS, PARTICIPANTS, AND ORGANIZATION PROFILES

Featured Locations

Pendergrass Neighborhood (Melvin: neighborhood subset)

Frankfield's location within the city was subject to debate. Technically, it was located within the Philadelphia neighborhood of Pendergrass. However, within Pendergrass, Frankfield administrators carved out a subset of the neighborhood for the university and its populations (e.g. faculty and students) to live and play. In this project I referred to this university-created subset, as Melvin. Frankfield's literature constructed Melvin as a separate neighborhood within the city, rather than apart of Pendergrass. The idea of the separation delineated not just a difference between the two locales, but an understanding Melvin was better than. This separatist motif was repeated by some volunteers during their interviews. The socio-economic classes, racial demographics, and resources put into the built environment in the section of Pendergrass that housed AISE and Melvin were in stark contrast. Within the city, Melvin was commonly understood as a world unto itself. For example, it included a pricey housing market (for the area), diverse cultural restaurants, grocery stores, and a notable public primary school where faculty sent their kids. To use Komozi Woodard's framing of the African-American population in the U.S., I saw Melvin as a neighborhood within a neighborhood. It is not a separate neighborhood from Pendergrass; though Frankfield administrators have gone to great lengths to develop Melvin's infrastructure as such. However, the contrast in the landscape between Melvin and the AISE neighborhood was clear.

Frankfield University (or Frankfield)

Frankfield is a research university in the city of Philadelphia. During my 4 research trips all, but one, of AISE's university volunteers hailed from Frankfield. The overwhelming majority came from fields in the natural sciences. Every person who I met and/or interviewed was a student in a natural science field. However, 2 interviewees did mention 2 AISE volunteers who came from the university's Philosophy Department and Business School. These latter two students represented *strong* outliers from the campus community that entered AISE.

Featured Parents

Sister Amina

Sister Amina was AISE's first parent liaison. She had two children who matriculated through the program. Her second child graduated from the program during my 3rd trip. I will not define Sister Amina's race/ethnicity as I am unaware of how she identifies. I can state that she is a woman of color who was in her late-30s to early-40s during my time in Philadelphia. She was approximately 5'5'' with light-skin and a fuller figure. She is the mother of a large family, I met 4 of her children and was aware of another daughter who lived out of state. I do not know exactly how many children Sister Amina had. She was a math teacher at the Taealam Academy. Mr. Gentry met Sister Amina through Collective Strength, and it was through this shared experience that he introduced her to AISE. The *second wave* of students at AISE were, in large part, the product of Sister Amina's network within the local Muslim community. During my 3rd trip Sister Amina had a daughter and began to scale-back her role as the parent liaison. However, she was

still an active program parent, especially when it came to her two son's science fair projects as well as attending both city and regional fair competitions.
I am unsure exactly where Sister Amina lived. I went to her house once and it was either in Pendergrass or a working-class neighborhood adjacent to Pendergrass (to the southwest). Her family's home teetered on this border. Both neighborhoods have a similar socioeconomic and racial make-up. All of AISE's families (outside of Amarah's) lived in these two neighborhoods. Sister Amina, through the Taealam Academy, worked in Pendergrass – close to the AISE house. The mosque that AISE's Muslim families attended was also in Pendergrass.

Sister Faqirah Abbasi

Sister Faqirah was introduced to AISE by her good friend Sister Amina. Sister Faqirah was the mother of four children who all attended AISE. During my 3rd trip she had one child in the 5th grade, two in the 3rd grade, and another in the 2nd grade. Her oldest child enrolled in AISE as a second grader. Therefore, by my 3rd trip, AISE participation had been a regular family function for the past three years. Sister Faqirah was an English teacher at the Taealam Academy. She was in her late-30s to early-40s during my time at AISE. She is an African-American woman, approximately 5'9'' brown-skin, with a fuller figure. Sister Faqirah was a very present program parent. She regularly remained at AISE conversing with the other mothers while their children were upstairs in class. She enjoyed the annual science fair competition and played an active role in her children's science fair projects. She stated that the fair was her favorite part of AISE's programming. She also became one of the three parents who took on parent liaison responsibilities after Sister Amina stepped down from the role after the birth of her daughter. As a longstanding parent, Sister Faqirah had a strong relationship with James and Dawn. She was a lively woman, charismatic, funny with an extraverted personality.
I do not recall whether Sister Faqirah's family lived in Pendergrass or the neighborhood to its southwest. However, she worked at (and her kids attended) Taealam Academy in Pendergrass. The mosque that AISE's Muslim families attended was also in Pendergrass.

Khadijah Azer

Khadijah was a program parent. During my 3rd trip she had three sons, two of whom were old enough to join AISE. One son was in the 4th grade and the other in the 3rd grade. Khadijah learned about AISE through other mothers in the local Muslim community. It is my understanding that all of the Muslim families present at AISE attended the same mosque and the large majority of the children attended Taealam Academy (which was started by the Iman at the mosque). Khadijah; however, was an exception. Her two school-aged boys were homeschooled and she was their teacher. They attended a city cyber-charter school. Prior to teaching her two boys, Khadijah was a local teacher. Khadijah is a Muslim African-American woman, at the time of this study in her early to mid-30s. She was approximately 5'8'' with a more slender frame and a medium brown complexion. She was another mother her regularly remained in the downstairs main room while the children met upstairs. As a parent who remained at the program each Saturday morning she regularly completed program tasks such as, prepping snacks and arranging nametags. Khadijah was not a parent liaison, but was always willing to lend a helping hand. She was very friendly, soft-spoken, and light-hearted.
Khadijah and her family lived in Pendergrass. The mosque that AISE's Muslim families attended was also in Pendergrass.

Amarah Azer

Amarah is an African-American Muslim woman, in her late 30s during my time in Philadelphia. During my 3rd trip she had one son in AISE's 3rd grade and another son who had previously graduated from the program. Amarah came to AISE each Saturday morning with her 3rd grade son and a younger daughter. Amarah's daughter was not old enough to enter the program at that time; however, she grew up at AISE. She sat in on opening and closing sessions each Saturday morning with her older brother. Amarah's family exemplified the families that grew up at AISE – where program participation consisted of sibling groups matriculating through it. Amarah and her family were the only program family that did not live in Pendergrass or the adjacent community to the southwest. In her interview she stated that her family resided in "the county" – this is Delaware County. She, however, went on to state that she grew up in the Pendergrass neighborhood that housed AISE and that she came into the city for her children's extracurricular activities. She felt that the city had a lot more extracurricular opportunities for her kids than the county. During casual conversations and an interview, Amarah introduced me to many enrichment opportunities in the city (within and beyond the STEM field). She seemed to have a great sense for academic community-level programming in the city.

Wanda Baker

Wanda Baker is an African-American mother, who was in her mid to late-30s during my time in Philadelphia. I met her during my 1st research trip when her daughter was a second grader at AISE. I interviewed Wanda on multiple occasions regarding her and her daughter's experiences at the program. She was initially introduced to AISE by her mother, who learned about the program from leadership at her church. Wanda came to AISE through the network of Black Baptist churches described in the dissertation. Wanda was a present parent at the program. Her child was a part of AISE's *second wave* of students, but she was not Muslim or a student at Taealam Academy. In this sense she was an outlier in the *second wave*. However, both she and her mother had a strong relationship at the program and were very close with program staff – specifically James and Dawn. However, because there was not a pre-existing friendship prior to coming to AISE, I never got the sense that Wanda developed a strong bond with any of the other program parents. In the dissertation I discussed the lack of opportunity within the program's structure to help parents develop relationships amongst each other. Outside of pre-existing friendships and AISE's limited efforts, personality differences definitely influenced whether, and how, parents developed personal bonds with each other. Wanda was not an extravert. She did look to extend herself and fulfill program needs when possible (e.g. purchasing and arranging snacks, organizing sign-in materials for kids and volunteers, and volunteering during community events such as, the Science Bazaar). However, she was not a parent who regularly stayed at AISE during program sessions; the main "organic" opportunity for parents to chat and build their own communal space. On a couple of occasions she stated that she used the time her daughter was at the program to run errands. Since her daughter never participated in the science fair, where parents, volunteers, and kids deepened relationships, this opportunity was also lost. During interviews, Wanda indicated that science was something her child was always interested in and that she was pleased to have found a community-based academic outlet for her. Wanda was also one of the very few AISE parents to have their child in a private school. Though she spoke extensively in her first interview about the great variation in quality amongst the city's private schools (alluding to the idea that her child was in a lower-tiered school), her daughter was still able to take advantage of such a resource. In terms of the different private schools her

daughter attended, Wanda indicated that AISE transitioned from being her child's only academic-based science outlet to fulfilling a supplemental role to her formal schooling. Wanda resided in the urban neighborhood adjacent to Pendergrass.

Mr. Albertson

Mr. Albertson was a program parent I met during my 1st research trip. At the time, his son was a 3rd grader at AISE. Mr. Albertson is an African-American male, in his late-30s to early-40s during my trip. He was approximately 5'9 with a husky-square build. He initially heard about AISE through his church. This was the same church that Wanda Baker's mother attended. From his interview, I learned that he worked for the Philadelphia School District in an in-house suspension or correctional office in one of the city's schools. His work experience seemed to greatly inform his view on interracial students-teacher experiences, punitive measures directed at black boys in the district, curriculum curtailment around standardized testing, and black students' (particularly boys) learning needs and disabilities going undiagnosed. He was very critical of the city's educational offerings – specifically lost subjects like science. For him, AISE was filling a needed gap in his son's education. Mr. Albertson also relayed during our interview that he was running for an educational advocacy position in the city. Though he did not expect to win, he felt that it was vital for parents to raise critical issues about the city's schools and hold the district accountable for their children's well-being. I do not know where the Albertson family lived.

Aaliyah Uma

Aaliyah Uma was a program parent I met during my 2nd trip to Philadelphia. Her daughter was a program participant from second to fifth grade. At the time of our interview her daughter was a fifth-grader at AISE. Her daughter was an active student, participating regularly in Saturday programming as well as in the Percy L. Julian Science Fair through the program. Aaliyah Uma is an African-American Muslim woman, in her mid to late-30s during my time in the city. She stood approximately 5'5'' with a medium build. She was a very charismatic woman, who presented a strong clear opinion during our interview. She was excited to share her family's experiences participating in the program. She spoke very highly of the opportunity AISE offered her daughter. A phrase that struck me, which she repeated throughout the interview was "I make it my business". She repeatedly made this statement when discussing the role she played in getting her daughter to different extracurricular activities throughout the city. For example, during her interview she indicated that she worked a full-time job with the city school district, but made it her business to make sure she got her daughter to AISE on Saturday mornings. She made it clear that it took effort to make sure her daughter was present each Saturday, but it was a responsibility that she took on as a parent. Since she saw AISE as a rich community resource (and marveled that it was free) she indicated that she made a conscious effort to volunteer at the site as often as she could. It was important to her to give back, and support the program in the ways that she could. I do not know where in Pendergrass Aaliyah Uma's family lived. Her daughter attended Taealam Academy.

Featured Program Staff

James Gentry

James Gentry was AISE's founding program director. He opened up the program to me as an ethnographic researcher. Prior to each trip, unbeknownst to me, Mr. Gentry wrote letters to the

program parents letting them know about my presence and intent to speak with them about their experiences participating at AISE. I never asked him to reach out to program parents, but I appreciated his interest in my studies. By my 4th trip, Mr. Gentry had been a resident of the local community that housed AISE for approximately 15 years. During my time in Philadelphia Mr. Gentry, an African-American male, was in his late 40s. He was born in Kalamazoo Michigan and held many positions in city institutions and programs. He was a lab manager in a biomedical research laboratory at Frankfield University and a youth minister at the Baptist church that housed AISE. He was also a member of a local interfaith group, Collective Strength, that led to AISE's *second wave* of students. From its inception, Mr. Gentry played an extremely active role at AISE. During my second trip, he stated that he was "learning to delegate"; that the process of opening up program responsibilities to staff was new and a bit scary. However, prior to this process he was responsible for organizing volunteer rosters, recruiting graduate students and youth, communicating with parents and principals about AISE's programming, constructing the curriculum, organizing the classrooms in preparation for Saturday programming, overseeing the program's science fair component, and obtaining all materials needed for weekly experiments (e.g. experiment kits and perishable items). During my 3rd trip, he regularly spearheaded the Friday night set-up sessions. During this time the classrooms were prepared for the next morning as well as reviewing and organizing students' folders for the upcoming lessons. He commonly led the opening and closing sessions on Saturday mornings, ushering the kids in and out of the week's lessons. He also continued to recruit students, communicate with parents, oversee the science fair component (which included mentoring a science fair student), and looking for/securing program grants.

James Gentry lived in a home he owned in the same Pendergrass neighborhood that housed AISE. For the majority of his time in the city it was an African-American working-class neighborhood made up of renters and homeowners. Though James lived in a section of Pendergrass, far west for a typical Frankfield employee, and was connected to many local institutions he still did not see himself (or felt that others saw him) as being *from* the city. He still saw himself (and felt others did too) as an outsider. He jokingly stated that you're not local until "you're here long enough to put your kids through school". During my 3rd trip James commented on how he was witnessing his neighborhood changing. He and Dawn (his tenant at the time) attended their neighborhood block party (block parties are very common in Pendergrass) and were surprised by the number of young white couples present at the party. He was surprised by how his neighborhood, so far west, was changing. He commented that he did not think "white people would feel comfortable living that far west" and that he did not think "gentrification would hit his neighborhood so soon". It was known that parts of Pendergrass were changing, in terms of race and class, but he did not feel that it would occur so soon where he lived.

<u>Dawn Henry</u>

When I first met Dawn Henry she was a graduate student at Frankfield. While a student she conducted bench research in a cellular and molecular biology lab that focused on immunology. As a student she was a founding member of AISE and engaged in basically every aspect of program operations – e.g. teaching, administration, curriculum development, science fair competition, fundraising, and all of AISE's community outreach programs. While a student, she was also very active as an IAFA board member. She was an African-American woman originally from a smaller town in Louisiana. During my time in Philadelphia, she was in her late 20s to early 30s. Dawn was approximately 5'5'', fuller-figure and deep brown skin. By my third trip

Dawn had graduated from Frankfield and transitioned to the workforce in an area biotech firm. At that time, she was AISE's executive director. Through her extensive work with the program she developed strong interpersonal relationships with many of the program's participants, specifically volunteers and program parents. She was able to return to IAFA, after graduating, to recruit for the program. She helped to maintain the linkage between AISE and current IAFA students at the time. She also maintained strong acquaintances or genuine friendships with many program parents – especially the more veteran parents. These relationships allowed them to speak frankly with each other about program proceedings. Dawn had many parents' numbers in her phone, so reaching out to a program parent to check-in on a kid who had not been present for a while, discussing science fair plans, or a student's Saturday performance was very common. During my time in Philadelphia, Dawn lived either in the "in-between" zone in Pendergrass or in the area of Pendergrass that housed AISE. The "in-between" zone is an area of Pendergrass between Melvin and the area that housed Pendergrass. The "in-between" zone had a radius of about 5 to 6 blocks. During my 3rd trip Dawn resided in a basement apartment in James Gentry's home. They lived blocks from AISE in a neighborhood known to be populated by working-class African-Americans.

Carla Parera

Carla Parera was a graduate student at Frankfield. She conducted bench research in a cellular and molecular biology lab that focused on microbiology. She was an international student from Colombia. She was roughly 5'3'' and in her late-20s. She had thinner dark brown hair a few inches past her shoulders. From our interview and our many interactions at AISE over the years, I took her to be a strong extravert, with a louder voice and personality. Some of the volunteers took her deportment as a bit abrasive, but her heart was regularly in the right place. She was a committed volunteer, even if she did not always have the most patient tone. She volunteered with all grade levels and ultimately became AISE's site coordinator towards the end of her graduate studies (this role began during my 4th research trip).

Carla did not live in Pendergrass, but in downtown Philadelphia. She regularly traversed from downtown Philadelphia to Melvin for school. She only moved beyond Melvin, deeper into Pendergrass, to come to AISE.

Featured Graduate Student Volunteers

Samantha Edwards

Samantha Edwards was a graduate student at Frankfield. She conducted bench research in a virology lab studying SIV. She was a white female, roughly 5'6'', soft spoken, and in her mid-20s. She was originally from northern Idaho. At the time of our interview she stated that she had volunteered with AISE 4 or 5 times, most often with the 2nd grade. This was her first year volunteering at AISE. She stated that she was interested in non-profits and liked that AISE was small (meaning intimate), focused (meaning the program's objective was clear), and she knew the person who ran it. AISE was her only connection to this Pendergrass community, and she liked that participation allowed her to enter a new community and meet people who were different from herself. Though she previously owned a high school tutoring service, she indicated that this was her first experience working with elementary-aged youth. Kids. She stated that she enjoyed the experience and could potentially see herself as a teacher.

Samantha Edwards lived in downtown Philadelphia. Her city travels commonly extended from her apartment to campus in Melvin. She stated that she only came into this part of Pendergrass for AISE.

Celina Santos

During my 3rd trip Celina was a first year volunteer. At that time she was a 4th year graduate student at Frankfield. She was undertaking bench research in cellular and molecular biology, focusing on developmental biology. She was a student in a developmental neurology lab. Celina was a Latina in her mid to late 20s, originally from Houston, TX. She had a slight frame and stood approximately 5'7''. She was introduced to AISE via emails from IAFA and two of her close friends who had previously volunteered for a number of years. Of the students I interviewed during this project, Celina was one of the more active graduate students when it came to volunteering in the city. She had volunteered with a couple of outreach programs before coming to AISE, but saw her roles/responsibilities in those groups as more superficial. She stated that one of the volunteer opportunities took her into science classrooms in the city, but she did not feel that she was well incorporated into the learning process. During her interview, she stated that she did not have prior teaching experience before AISE, but appreciated the level of investment the program allowed her to make in students' lives.
Celina lived in Pendergrass in the "in-between" zone.

Jaime Schmitt

Jaime Schmitt was a first year volunteer during my 3rd research trip. At the time she was a first-year graduate student at Frankfield. She was a white woman, in her mid-20s, approximately 5'7''. Her background was in molecular and cellular biology. Jaime had volunteer experience prior to AISE, and was also in another city STEM program. Her previous experience was with a reading and writing program in College Park, Maryland that she described as similar to AISE (that program was also an OST that operated on Saturdays). Jaime was also mentoring a local youth through the SPARK program. SPARK was a new one-on-one mentoring program in the city. During her interview, Jaime stated that she made a point, when she came to Frankfield, to connect with the campus' natural science minority professional organization (IAFA) because she felt that if any university entity was engaged with the local urban community it would be them.
I do not know where Jaime lived in the city of Philadelphia.

Zaineb Comber

Zaineb was a post-doc at the Children's Hospital of Philadelphia (CHOP) during my 3rd trip. She was also a first-year AISE volunteer at that time. She was an African-American woman in her early-30s. She was approximately 5'6'' with locks that came a few inches past her shoulders. Zaineb completed her undergraduate studies at Cornell University. She was one of two non-graduate students during my three years at AISE. During my first year one of the volunteers was a local teacher. Zaineb was the only volunteer originally from Philadelphia. She grew up in the AISE neighborhood of Pendergrass. She was very familiar with the church as she grew up in it, and stated that she participated in many of its youth programs as a child. She also attended one of the local elementary schools in the area that James was interested in advertising the program in. She was familiar with some of the science programs present in the city's school, specifically iPraxis, as it was a program present at her elementary school. She stated that she previously looked into volunteering in a local school, but did not feel that the iPraxis program made a deep

investment in the educational lives of the kids' it served. Her graduate research and post-doctoral studies where in genetics. Zaineb began at AISE as a volunteer teacher. However, within her first year she took on more leadership roles such as, co-recreating the 5th grade spring curriculum, securing the necessary laboratory materials for the unit, grant writing, and organizing the Science Bazaar. Zaineb's faster immersion into AISE's infrastructure was reflective of her personal desire to work within and co-construct community-based programming in Pendergrass. She was specifically interested in inner-city programming related to civic engagement, youth, and senior citizens.
In the city, Zaineb lived in the working-class neighborhood adjacent to Pendergrass.

Martin Rizzo
Martin Rizzo was a graduate student at Frankfield during my 3rd trip. I learned during our interview that he was transferring from Frankfield to another university in the city to complete his doctoral studies. At Frankfield he was in a Physical Chemistry program and at his new university who would be completing a degree in Material Science and Engineering. Martin was a white male in his mid to late-20s. He was approximately 6'0'' with a broad, large frame. He had dark features (hair, eyes, and skin-tone) for a white person. He was a very friendly, easy going young man who volunteered regularly at AISE. I believe he volunteered more than was recommended by AISE's administration. In terms of appearance, he was a distinguished volunteer, always arriving to AISE in business casual attire that included a bowtie. He stated that volunteering at AISE was his first teaching experience, but that he greatly enjoyed it. He appreciated the teaching opportunity, making the point clear in his interview that his studies did not carve out opportunities for graduate students to gain teaching experience. This was something that he saw as valuable and missing from his studies. I got the sense during our interview that volunteering at AISE was a stronger component of his local identity in the city. During my 3rd year Martin was volunteering at AISE for the first time. He learned about the program through the Opening Doors program in his department.
Martin stated in his interview that he lived "a little bit east of here, not terribly east". He stated that he did not live in Melvin, so I assume he too lived in the "in-between zone". He commented on the segregated nature of the city and clearly made distinctions between Melvin and Pendergrass, as if they were two separate neighborhoods. This framing was more common amongst AISE's non-black volunteers. He indicated the change in the landscape moving from Melvin, farther west into this part of Pendergrass. He particularly made reference to changing racial demographics, the visibility of religion, economics, differences in the built environment, and his sense of personal safety. All of these pronouncements, as either different, new experiences, or stated negatively were common amongst volunteers – especially non-black volunteers. The non-black volunteers were also regularly newer volunteers to the program and were often moving this far west for the first time.

Natasha Rodgers
Natasha Rodgers was a graduate student at Frankfield during my first two research trips. She played an essential role in introducing me to AISE and its administrative staff. She was my first informed participant. She was also one of AISE's founding members. She was a member of the Coltrane Lab. The original collective that met over lunch to brainstorm AISE's inception were members of the Coltrane and Gates labs. During my interactions with Natasha she was either on the cusp of becoming ABD (1st research trip) or had more recently transitioned to bench research

(2nd trip). She was a student in the molecular and cellular biology unit, and completed bench research in a virology lab, focused on SIV research. During my first two trips, she was in her early-30s, was approximately 5'9''. She is an African-American with very light skin, green eyes, and thick black hair. She had a medium build. As a longstanding volunteer she was a seasoned instructor. She often worked with the 5th grade, helped with science fair participation, organized the Science Bazaar, a women in STEM initiative, and a student exchange between youth at AISE and youth in Lesotho.
She lived off-campus, always outside of Melvin. She lived in 3 or 4 different locations in Pendergrass while a graduate student. The Pendergrass neighborhood's transitions could be exemplified as *zones* – in this project beginning at Melvin and extending west to the inner-city neighborhood that housed AISE. During her graduate studies, Natasha initially lived in a working-class black neighborhood in Pendergrass and then in the "in-between" area – outside of Melvin but not as far west as the section of Pendergrass that housed AISE. To city outsiders (e.g. university students), her former residence was in a neighborhood regularly regarded as unsafe. It had no Franklin affiliation and many delivery drivers would not enter it. Potentially ironic to outsiders, when living in an apartment building closest to Melvin (still in the "in between" zone), in an area known to house Frankfield students, she experienced the most neighborhood violence. There were frequent apartment break-ins in her building. Natasha and I surmised that living in a student-concentrated building made her more of a *sitting duck* in the city. When she lived further west (especially during her first couple of years) she stated that she felt more safe as a student because she resided in a neighborhood that reflected Pendergrass' black, working-class landscape. Though delivery drivers (an example of outsiders) saw it as unsafe, she was moreso incorporated in the natural landscape.

Lamar Lowry

Lamar Lowry is an African-American man, who was in his early-30s during my second trip. He was a graduate student at Frankfield; pursuing a degree focused on immunology in the cellular and molecular biology unit. He was a member of the Gates lab, a founding AISE volunteer, a member of IAFA, and a member of the collective that initially organized with James Gentry to construct the program. By my 2nd trip, I got the sense that Lamar was no longer a regular volunteer at AISE. At this time, he had personally gone through a few major life transitions. By 2012, he was married, with a stepdaughter in middle-school, and a baby on the way. He was towards the end of his studies and transitioning into the workforce. Lamar was approximately 6'0'' with a medium-sized build. He had a dark brown complexion and wore glasses.
He lived with his family in Overbrook. Overbrook is a first ring suburb outside of Philadelphia on its west side.

Serena Gordon

Serena Gordon was a longstanding IAFA volunteer. She was a graduate student at Frankfield. During my 3rd trip she was conducting bench research in cellular and molecular biology in a lab that focused on microbiology and immunology. During her interview she went on to say that she was studying "immune response to a parasitic infection, a disease called maleeshmayasin". Serena is an African-American female, in her mid to late-20s when we met. She was approximately 5'8'' with dark brown skin and a fuller figure. As a longstanding volunteer, Serena had participated in many facets of AISE's programming. She was a volunteer instructor, mentored students through science fair projects (very successfully), and helped to coordinate

Science Bazaars. As the president of Increasing Access for All, during my 3rd year, and a former member of Woodard's executive board she played a valuable role publicizing AISE through these campus organizations. For example, her presence definitely supported Dawn's ability to return to IAFA after she graduated to promote the program and the historical linkage between IAFA and AISE.

During my research, Serena lived in either the Pendergrass neighborhood that housed AISE or the "in-between" zone. I learned about her former residence by overhearing a conversation she had with one of AISE's youth. She was telling the child that she lived in the same neighborhood as him, which he seemed to not believe. However, when she told him the main thorough-fare that she lived off of (a street with high pedestrian and commercial traffic street similar to Adler St.) and the neighborhood grocery she went to he was shocked. It was the same store that his family went to. I know of her later residence in the "in-between" zone because we lived on the same street.

Lydia Wilson

Lydia Wilson was a first year volunteer during my 3rd research trip. She was a graduate student at Frankfield. She is a white woman, with straight brown hair and a fuller frame during my time in Philadelphia. She was in her mid-20s and approximately 5'8''. She was a student in the university's Biochemistry and Molecular Biology program. She stated that she first heard about AISE during a Biomedicine Graduate Programs orientation session, geared towards first-year graduate students. Serena Gordon (the IAFA president at the time) was presenting on IAFA and discussed one of its main outreach initiatives – AISE. Lydia was at the event presenting on the Graduate Women in Science and Bioengineering program. She had an extensive background volunteering in community programs. She is from California and during her interview shared her extensive volunteer background. She indicated that she worked for years with science-based summer camps and as a program facilitator with the Pitts Science Center in San Diego. She stated that both of her parents were academics (in the natural sciences and computer science), and I got the sense that intellectual prowess was something held in very high regard in her household. For example, during a casual conversation while prepping for AISE's programming on a Saturday morning she stated that she received her first computer as a child from her father. He had dissembled the computer and told her that if she wanted a computer she would have to put it back together. With pride she stated that she did just that. In the classroom, Lydia was a dynamic teacher. Though a first year volunteer, she commonly took the lead when co-teaching. She had a *take charge* personality, but fulfilled the leadership role in the classroom well. Her extensive volunteer background clearly came through in her comfort in front the students. She relayed program content well at each grade level, could respond on the spot to students' various (academic and social) needs, and worked well co-teaching. Lydia quickly increased her volunteer-time at AISE moving beyond the classroom. She ended up completing administrative roles at the program such as, helping to update AISE's website, contributing resources from her lab for the revised 5th grade spring module on genetics, and helping to plan the Science Bazaar. During her first year with the program, she also acted as a science fair mentor for a 5th grade student. She worked diligently with the student and his mother to complete an award winning project. Following my 3rd year, Lydia ended up transferring university programs. She left her PhD program and entered a Frankfield teaching program. Her plan was to become an urban high school science teacher.

Lydia stated that she lived 5 blocks away from the AISE house. This is squarely in the "in-between" zone. She stated that she walked to AISE each Saturday morning, as the walk was only 15 minutes. She indicated that she always noticed a change in the landscape when she walked from her apartment to AISE. She went on to say that AISE brought her to this area of the city for the first time; a part of town where many of her friends (other Frankfield graduate students) were concerned for her safety. However, she indicated that with time, she felt perfectly fine traveling to the AISE house. She closed our conversation on traversing a segregated city stating, "I don't notice, I think as much, because I do live close. You do see a change in terms of the people, or the houses. So you do feel, by the time you've moved to the AISE house, a lower income neighborhood. But not quite, I think as drastic, say if I lived in Rittenhouse."

Luna Pedros

By my 3rd trip, Luna Pedros was a longtime volunteer. She is a Latina. She had a slightly fuller build, was in her mid-20s, and stood approximately 5'7''. She was a student at Frankfield University in its Chemistry Department. During causal conversations she stated that she initially heard about AISE from friends who helped to found the program. Her own volunteering efforts at AISE took place through the graduate student organization, Opening Doors. Luna presented AISE to the organization as a potential volunteering outlet for graduate students. Ultimately, many of the individuals who came to AISE from the Chemistry Department came through this student organization. Luna was a strong advocate for AISE, ushering students and resources from different entities within the Chemistry Department into the program. Along with promoting AISE as a volunteering outlet within Opening Doors, she also spearheaded the partnership between AISE and her PI's lab, which brought university grant dollars into the program. Though a member of Opening Doors she also became a key human resource that left her PI's lab to volunteer at AISE (in fulfillment of the grant's outreach component). Through these roles Luna completed many instrumental functions at AISE. She participated in revising the 5th grade fall module; brought human and material resources into the program, and promoted AISE as a volunteer opportunity at Opening Doors.

I do not know where in the city Luna lived. However, from casual conversations I do know that she did not live in the section of Pendergrass that housed AISE.

Featured Youth

Aman Mahdi-Mowad

Aman is Sister Amina's son. He entered the program as a 2nd grader. He was an initial member of AISE's *second wave*. He attended Taealam Academy and was an 8th grader during my 3rd trip. At that time, Aman had graduated from the program, but was still present each Saturday because his mother brought his younger brother to AISE (he was a 5th grader). During the science fair competition season (which ran from mid-fall to early spring) Aman's mother brought him, his younger brother and a newborn sister each week. Though a program graduate, Aman was still actively involved at AISE. He participated each week in the program's opening and closing sessions – attempting to answer questions James or Dawn posed to each grade. After graduating he also continued his involvement by participating the city's science fair competition. He always performed well in the fair; making it to the regional fair during my 3rd year. Science fair competition could be a very involved process, especially at the regional level. Aman, James (his science fair mentor), and his mother put many, many hours into his fair projects. Aman was

something of a "superstar" at AISE. He was definitely a student with a strong passion for STEM. Students had various levels of natural interest in AISE's content, where for most, program participation was just as meaningful as other extracurricular activities such as, soccer lessons. However, it was clear that STEM was Aman's "thing". For example, during our main interview he talked about wanting a copy of his current 8th grade biology textbook so he could continue reading at his leisure once the school year was over. Outside of AISE's programming, Aman also stayed connected to STEM opportunities in the city through the "pipeline" that AISE's staff and program parents pieced together for their kids.

I am unsure exactly where Aman's family lived. I went to his house once and it was either in Pendergrass or the working-class neighborhood adjacent to Pendergrass. His family's home teetered on this border. Both neighborhoods have a similar socioeconomic and racial make-up.

Featured Organizations

Dudley Weldon Woodard Society (or Woodard Society)

As AISE's youth population expanded staff needed to increase their volunteer numbers. IAFA was not able to fulfill this need on its own. By my first research trip (2011) graduate students from the Woodard Society were a part of AISE's volunteer-force. They appeared in much fewer numbers than students from IAFA, but they were present. During my research, I did not learn when volunteer advertisement extended to the Woodard Society. However, I do know that AISE's first year only included IAFA volunteers. The Woodard Society was the first campus entity, outside of IAFA, to volunteer with AISE.

The Woodard Society is a student organization directed at traditionally under-represented racial/ethnic Ph.D. students from across all of Frankfield's schools. It has the same underlining purpose at IAFA; however the latter is directed at students in the biosciences. During an interview with Loren Adam, who came to AISE through the Woodard Society, I learned that the large majority of volunteer opportunities that came through the Society were directed at the humanities and social sciences. She was excited when she received emails advertising a STEM-related volunteer opportunity. Loren was a Frankfield graduate student in bioengineering. She was also a Woodard Society board-member during my 3rd research trip.

Opening Doors

Opening Doors was a graduate student organization in the Frankfield Chemistry Department geared towards the department's female graduate students. The organization's intent was to provide an academic and social-emotional support system for women; helping them to matriculate through their studies and into the field. As a minority population in both the natural sciences, and the field of chemistry, the program was a valuable campus resource for women. Opening Doors became a strong advertising vehicle for AISE in the Chemistry Department. All of AISE's chemistry students came to the program through Opening Doors. The large majority of them were women, but Martin Rizzo also heard about AISE through this program.

**Other featured organizations: Increasing Access for All (IAFA), the Science Center for Future Teachers, Collective Strength, and Taealam Academy are described extensively in the dissertation, so they are not specifically featured in this section.

APPENDIX B: SAMPLE INTERVIEW QUESTIONS

Program Staff

1. How did you find out about Adventures in Science Education?

2. How would you describe your science background and training – field of study?

3. How would you describe a typical Saturday session of Adventures in Science Education (AISE)?

4. How would you describe the program's mission?

5. How would you describe your role and responsibilities in the program?

6. How do you imagine the program's place in students' lives, in terms of their academic development?
    a. As a program volunteer, how do you imagine your place in the students' lives?
    b. What benefits would you like the program to have participants (kids, parents, volunteers)
    c. What impact have the kids (or the program) had in your life?

7. How would you compare the program (and access granted to students) to your own schooling and science education – particularly during your elementary and middle school years.

8. As a neighborhood program, how would you describe AISE's place in W. Philadelphia?

9. As a member of program staff how would you describe group dynamics?
    (i.e. do you see yourself as part of a community or collective operating with shared goals)

10. Crossing border……. What spaces or boundaries, if any, do you feel you cross in participating in this program?
    I.e. in terms of geography, race, class, science training, gender, learning styles.

11. Any advice you'd want to give to future volunteers?

12. Is there anything else you would like to share from your experiences with the Adventures in Science Education?

Program Parents

1. How did you find out about the Adventures in Science Education (AISE)?

2. From your perspective, how would you describe a typical Saturday session at AISE?
    a. Walk me through your Saturday routine at the program

3. How would you describe the program's mission?

4. What have you learned about the program from your child's participation?

5. How do you see your role in the program?

6. How do you imagine the program's place in students' lives, in terms of their personal and academic development? (speak to your specific child and the students in general)

7. As a neighborhood program, how would you describe AISE's place in Pendergrass?

8. What role would you like AISE to play in your child's immediate and long-term educational development?

9. What do you see as one of AISE's greatest strengths?

10. Is there anything else you would like to share from your experiences with Adventures in Science Education?

Program Kids

1. How did you find out about Adventures in Science Education?

2. How would you describe a typical Saturday session at Adventures in Science Education?
    a. Walk me through your Saturday routine

3. From your perspective, what words would you use to describe AISE?
    a. In 5 words to describe it.

4. What do you think is the program's mission?

5. What are some of the things you have learned through your participation at AISE.
    a. Teamwork, curriculum, science fair, scientific method, techniques, various types of science

6. Do you think participating in AISE supports your academics?
    a. How do you think participating in SEA supports what you do and learn in school?
    b. Does it support any particular subject in school? (science, math, English)

7. What do you see as one of AISE's greatest strengths?

8. What were some of your favorite activities at AISE?

9. What activities challenged you the most?

10. Can you walk me through what science fair participation was like?
    a. Begin with brainstorming on your project

11. If you were to give advice to a future AISE students what would it be?

12. If you were to give advice to a future science fair participant, what would it be?

13. If you could participate in AISE in any capacity that you'd like what would it be?

14. If you could see something added to AISE what would it be?

15. Is there anything else you would like to share from your experiences with Adventures in Science Education?

APPENDIX C: SAMPLE INFORMED CONSENT LETTERS

September 18, 2013

Dear Program Staff Member:

My name is James D. Anderson, and I am a professor in the Department of Education Policy, Organization, and Leadership at the University of Illinois Urbana-Champaign. My graduate advisee, Shana Riddick, would like to solicit your participation for a study she is conducting on community engagement efforts supporting the educational experiences of urban youth. Mrs. Riddick has completed two previous studies at Adventures in Science Education (AISE); the first was completed in Spring 2011 and the second in Spring 2012.

During this current trip, Mrs. Riddick is going to be at AISE for the large majority of the current academic school year. While conducting her research she will also be a program volunteer at AISE supporting the program's weekly operation. She will be present at the program each week. Through her time at AISE, Mrs. Riddick would like to gain a better understanding of how community groups participating in the program (i.e. parents, students, local teachers, and community members) are thinking about local educational needs, participation in community-level programming, and the support given to the educational development of local youth.

We do not anticipate your participation creating any risk greater than normal life. As a program staff member we are asking for your participation in two ways. First, we would like to obtain your consent to allow Mrs. Riddick to observe your classroom sessions. The intent of the observations are to witness the educational content presented, student engagement with program materials, and the interactions that take place in the classroom spaces. During her time at AISE, Mrs. Riddick would also like to solicit your participation to complete an interview regarding your participation in the program. The intent of the interview is to gain information, from your perspective, regarding the program's function, place in students' lives as well as the larger city. The interview would be approximately 20 minutes in length and can take place at a time and place convenient to your schedule.

If you do choose to participate in the project, please know that your participation is completely voluntary. If for any reason you would like to terminate your participation from the project you are free to do so. The information contained during this research project will be kept secure, your identity will remain confidential. The fieldnotes produced will be coded to remove all names (program participants and the site). Any audio recordings collected will be uploaded to a secure computer, accessible only to myself and Mrs. Riddick. They will be erased after the project is completed.

The results of this study will be the basis of Mrs. Riddick's dissertation. A major goal of the project is share the insights gained with collectives, particularly academic and policy communities, who are less familiar with the learning strategies and community engagement taking place at AISE.

In the space at the bottom of this letter, please indicate whether or not you wish to participate in this research project. If you choose to participate a copy of this document will be made available for your

records. If you have any questions about the research project, please feel free to contact either of us by mail, e-mail, or telephone.

Sincerely,

James D. Anderson
Professor
1310 South Sixth Street
Champaign, IL 61820
jdanderso@illinois.edu

Shana N. Riddick
Graduate Student
1310 South Sixth Street
Champaign, IL 61820
riddick1@illinois.edu
857-991-3798

I do/ do not (circle one) wish to participate in the research project described above.

_____Date _____Signature

If you have chosen to participate please indicate if you are consenting to:
[check the box(es) that apply]

[ ] Observations in your class sessions

[ ] Participate in an interview

I do/ do not (circle one) give permission to be audiotaped.

_____Date _____ Signature

September 18, 2013

Dear Program Parent:

My name is James D. Anderson, and I am a professor in the Department of Education Policy, Organization, and Leadership at the University of Illinois Urbana-Champaign. My graduate advisee, Shana Riddick, would like to ask for your participation in a study she is completing on community engagement initiatives supporting urban youths' educational experiences. Mrs. Riddick has completed two previous studies at Adventures in Science Education (AISE); the first was completed in Spring 2011 and the second in Spring 2012.

During this current trip, Mrs. Riddick is going to be at AISE for the majority of the current academic school year. While at AISE she will also be a program volunteer and will be present each week. Through her time at AISE, Mrs. Riddick would like to gain a better understanding of how community groups participating in the program (i.e. parents, students, local teachers, and community members) are thinking about local educational needs, participation in community programming, and the educational support they give to local youth.

We do not anticipate your participation creating any risk greater than normal life. As a program parent we are asking for your participation in three ways. *First*, we would like to obtain your consent to allow your child to be observed in their classroom sessions. The purpose of the observations are to witness the educational content presented, student engagement with program materials, and the interactions that take place in the classroom spaces. *Secondly*, during her time at AISE, Mrs. Riddick would also like your consent to interview your child regarding their participation in the program. She can make the interview questions available to you prior to the actual interview. The intent of the interview is to gain information from students' perspectives about their participation at AISE, specifically how they feel the program supports their academic development. The interviews would take place at AISE, at a time convenient to your schedule. If you would like, either yourself and/or Mr. Gentry can be present at your child's interview. The interview would be approximately 20 minutes in length.

Lastly, along with your child's participation, we would like to ask for your participation, to complete an interview during Mrs. Riddick's time at AISE. Like your child, the interview would be approximately 20 minutes in length and would take place at a time and place convenient to your schedule. Your insights as a program parent are also very important to obtain within this research project. Please note that if you consent to your child's participation in this study, your child will also have to sign an assent form stating that they want to participate in the study. Because your child is a minor their participation is a two-step process where you and your child must both agree to their participation. A copy of their assent form can be made available to you. As Mrs. Riddick analyzes her data she may find it helpful to complete a follow interview. If this is the case she will ask for your additional participation. The follow-up interview, like the initial interview, is voluntary.

If you choose to participate in the project, please know that your participation is completely voluntary. If for any reason you would like to end your participation in the project you are free to do so. The information contained during this research project will be kept secure; your identity will remain confidential. The fieldnotes produced will be coded to remove all names (program

participants and the site). Any audio recordings collected will be uploaded to a secure computer, accessible only to myself and Mrs. Riddick. They will be erased after the project is completed.

The results of this study will be the basis of Mrs. Riddick's dissertation. A major goal of the project is share the information gained with communities, particularly academic and policy communities, who are less familiar with the learning strategies and community engagement taking place at AISE.

In the space at the bottom of this letter, please indicate whether or not you wish to participate in this research project. If you choose to participate a copy of this document will be made available for you. If you have any questions about this research project, please feel free to contact either of us by mail, e-mail, or telephone.

Sincerely,

James D. Anderson
Professor
1310 South Sixth Street
Champaign, IL 61820
jdanderso@illinois.edu

Shana N. Riddick
Graduate Student
1310 South Sixth Street
Champaign, IL 61820
riddick1@illinois.edu – 857-991-3798

Regarding Your Child's Participation

I do/ do not (circle one) wish to allow my child to participate in the research project described above.

_____Date _____Signature

If you are allowing your child to participate please indicate if you are consenting to:
[check the box(es) that apply]

[ ] Observations in their class sessions

[ ] Participate in an interview

I do/ do not (circle one) give permission for my child to be audiotaped.

_____Date _____ Signature

Regarding Your Own Participation

I do/do not (circle one) with to participate in the research project described above.

_____Date _____ Signature

I do/ do not (circle one) give permission to be audiotaped.

_____Date _____ Signature

September 18, 2013

Dear Program Student:

My name is Dr. James D. Anderson and I am a teacher. One of my students, Shana Riddick, would like to know if you would like to be a part of her school project. The project is about students and their afterschool programs. She is coming to Philadelphia to learn more about your science program – AISE! Mrs. Riddick came to your program two times before and now she is staying for the entire school year.

While Mrs. Riddick is learning about the program from everyone there, she will also be a volunteer teacher. Mrs. Riddick would like to ask for your help to learn about the program. She would like to ask for your help in two ways.

1. You are a student at AISE, one of the things she wants to know is, what it's like to be a kid in the program. She would like to know if it's okay if she came to your SEA classroom to see what the classes are like.

2. Mrs. Riddick would also like to know if she can talk to you about being a kid in this program. She would talk to you at AISE. If you want, Mr. Gentry or your parent can be there when you talk to her. Mrs. Riddick may ask if she can speak with you a second time. If she asks let her know if you want to talk to her again. You do not have to if you do not want to.

Mrs. Riddick is asking for your help with her school project, but if you do not think you want to you do not have to. Let her know what you want to do. If you think you want to help her now, but later you change your mind, that is okay. If you change your mind let her know.

Below, please let Mrs. Riddick know if you want to be a part of her school project. Let her know if she can come to your AISE classroom and let her know if you want to talk to her about being a kid at AISE.

If you have any questions ask Mrs. Riddick. Or, tell them to your parents or Mr. Gentry and they will ask Mrs. Riddick for you.

Sincerely,

James D. Anderson

and

Shana N. Riddick

Can Mrs. Riddick come to your AISE classroom to watch what goes on?

Circle one: Yes No

Do you want to talk with Mrs. Riddick about being a kid at AISE?

Circle one: Yes No.

Your name: _____ Date: _____

APPENDIX D: LETTER OF INTENT (AISE)

September 1, 2013

Investigative Review Board
University of Illinois, U.C.
528 East Green Street
Suite 203, MC-419
Champaign, IL 61820

RE: Full Board Review

To Whom it May Concern:

This letter is to indicate that Adventures in Science Education (AISE) in Philadelphia, PA is giving permission for Shana N. Riddick, graduate student in the Department of Education Policy Organization and Leadership, to enter the program as an ethnographic researcher during the academic school year 2013-2014. As the executive director of AISE, we expect to have her at the site from late September through the summer months. AISE is a community-based partnership providing STEM education to children in under-served communities.

Shana Riddick completed ethnographic research at AISE on two other occasions. She came to the program in Spring 2011 and Spring 2012. Along with undertaking her research project Mrs. Riddick will also act as a program volunteer. The program meets on a weekly basis and we intend to have Mrs. Riddick present during each Saturday session. The intent of Mrs. Riddick's research is to gain insights from program members on the role of this enrichment program in the lives of participants and in the local community.

Through her time as a university student she has completed various qualitative research projects and spent the last three summers in a leadership position at a middle-school STEM camp at Indiana University – Bloomington. Through her involvement with the IU Adventures in

STEM Summer Science camp, she completed (and passed) Indiana's Criminal History Search each summer. She is in the process of undergoing a background check within the state of Pennsylvania through PATCH (Penn. Access to Criminal History). We look forward to her presence at the site. We believe in her research agenda and feel that she will be an excellent contribution to our staff and program. We have reviewed her assent and consent letters as well as her interview questions. We find all of the documents to be thorough and sound. They clearly note her research objectives, her intent for participant involvement, and the implications for involvement in the research project. Again, we welcome her to Adventures in Science Education!

Please contact me if you have any questions.

Regards,

Dawn Henry PhD
Executive Director
Adventures in Science Education
XXXX Alder Street
Philadelphia, PA XXXX

APPENDIX E: ADVENTURES IN SCIENCE EDUCATION PROGRAM PARTICIPANT CHART

Program Staff

James Gentry
Founding Director
(African-American)

Dawn Henry
Executive Director
(African-American)

Sister Amina
Parent Liaison
(multiracial)

Sister Faqirah,
Kendall's Grandmother,
Kenneth's Grandmother
Parent Liaison
(African-Americans)

Auxiliary Support Staff

Vanessa Victors
Science Curriculum Coordinator for the Philadelphia School District (retired)
(African-American)

Volunteers

(indicates how they came to AISE)

Samantha Edwards (member of original 2 labs) *(White)*	Christian Skipwell (IAFA members) *(African-American)*	Celina Santos (Woodard Society & word of mouth) *(Latina)*
Natasha Rodgers (member of original 2 labs) *(African-American)*	Jonathan Rios (IAFA Member) *(Latino)*	Jaime Schmitt (IAFA email) *(White)*

Carla Parera (member of original 2 labs) *(Colombian)*	Ronald Marlon (email solicitation, Dept. of Earth and Environmental Science) *(White)*	Thelma Romp (Women in Science member) *(White)*
Serena Gordon (IAFA member) *(African-American)*	Lamar Lowry (member of original 2 labs) *(African-American)*	Lydia Wilson (word of mouth, student presentation panelist) *(White)*
Zena Porter (IAFA Member) *(African – black)*	Martin Rizzo (Women in Chemistry email) *(White)*	Zaineb Comber (word of mouth, industry presentation to her lab) *(African-American)*
Saleeban Funge (IAFA member) *(African-American)*	Loren Adam (Woodard Society member) *(Jamaican - black)*	Luna Pedros (Women in Chemistry member) *(Latina)*

Program Parents

(participating children)

Mr. Albertson (1 son) *(African-American)*	Sister Faqirah Abbasi (3 sons, 1 daughter) *(African-American)*	Mrs. Lewis (1 daughter, 2 sons) *(African-American)*
Wanda Baker (1 daughter) *(African-American)*	Sister Amina (2 sons) *(African-American)*	Amarah Azer (1 son) *(African-American)*
Khadijah Azer (2 sons) *(African-American)*	Aaliyah Uma (1 daughter) *(African-American)*	Sister Sultana (1 son) *(African-American)*

Kids

(grade in program during my 3rd research trip)

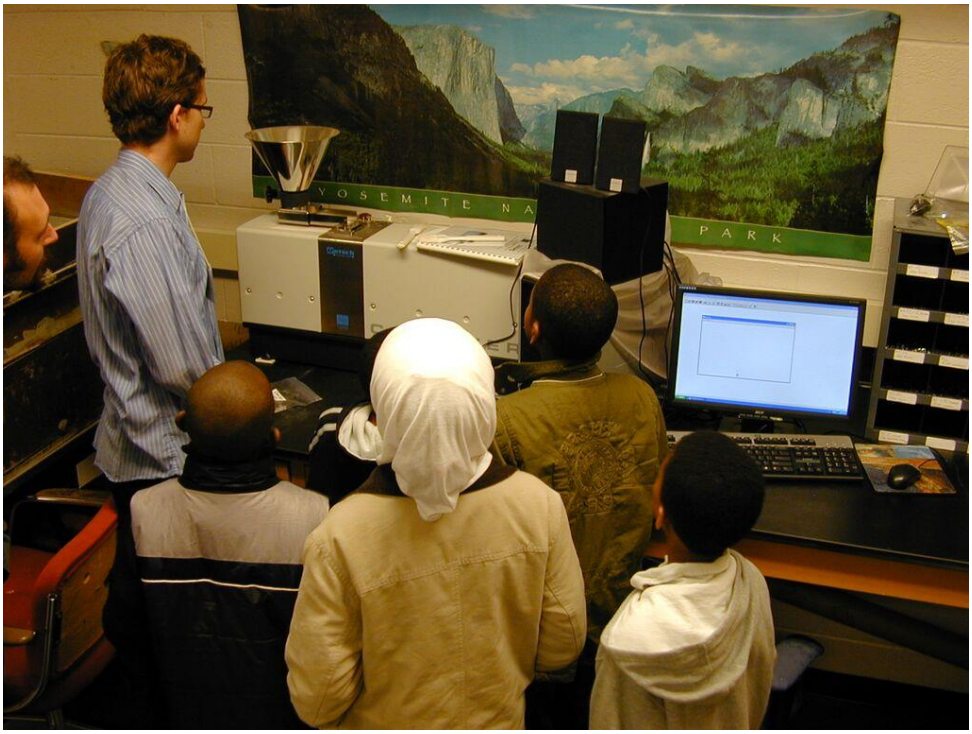
Aman Mahdi-Mowad 8uth grader *(African-American)*	Jayda Baker 5th grader *(African-American)*	Somi Mahdi-Mowad 5th grader *(African-American)*
Amalia 2nd grader *(African-American)*	Mahd 2nd grader *(African-American)*	Tatiana 2nd grader *(African-American)*
Jahaan 2nd grader *(African-American)*	Haseen 2nd grader *(African-American)*	Abdur-Rahman 2nd grader *(African-American)*
Qizar 5th grader *(African-American)*	Qaahir 3rd grader *(African-American)*	Qasid 3rd grader *(African-American)*
Amatul-Aala AISE graduate *(African-American)*	Laeth 5th grader *(African-American)*	Aaliyah AISE graduate *(African-American)*

(participants' race, nationality, or continent of origin are noted in each field, as italicized information. I used the terms that participants used to define themselves during interviews or casual exchanges at the site)

APPENDIX F: FOURTH GRADE, FALL MODULE (LANDFORMS)

Fourth Grade, Fall Module (Landforms)

Erosion and Sedimentation



Landforms cont'd: Laboratory visits (Frankfield University) to reinforce concepts learned at AISE

APPENDIX G: FIFTH GRADE, FALL MODULE (CHEMISTRY UNIT) & FIFTH GRADE, SPRING MODULE (GENETICS UNIT)

Fifth Grade, Fall Module (Chemistry unit)

Fifth Grade, Spring Module (Genetics unit)

APPENDIX H: CURRICULUM: GUIDING THEMES

Curriculum: Guiding Themes

	EARTH SCIENCE Oct 10 – Nov 14	PHYSICAL SCIENCE Jan 23 – Feb 27	BIOLOGICAL SCIENCES Mar 19 – Apr 30
Second Grade	Air & Weather	Weighing & Balancing	Insects
Third Grade	Rocks & Minerals	Physics of Sound	Plant Growth & Development
Fourth Grade	Water and Land Forms	Electricity and Magnetism	Life Forms
Fifth Grade	Chemistry and Sources of Energy	Physics and Motion Simple Machines	Cell Biology

Curriculum: Overarching Frame

3 Modules

Earth Science – Fall Unit

Physical Science – Winter Unit

Biological Sciences – Spring Unit