

The CCA Urban ACT Prep Program

Project Narrative

Introduction

Economic disparity plays a key role in academic achievement gaps in the United States. In 2007-2008, only 28% of high school graduates from high poverty schools attended four-year institutions after graduation - about one half as many as their peers from low-poverty schools [12]. These stunning statistics contribute to the fact that 50% of students coming from high income families obtain bachelor's degrees by age 25. This drops to a mere 10% for students from low-income families [2]. College readiness shows a similar dichotomy. A recent report from ACT shows that when you consider the scores of low-income students versus all students who took the ACT, there is a 20% difference amongst those who displayed college readiness in mathematics. Hence, students from low-income families tend to be less prepared for non-remedial college courses [10].

The Oklahoma City Public School District has numerous high-poverty schools. At Douglass Mid-High School, located near downtown Oklahoma City, 8.5 out of 10 students are eligible for free or reduced lunch. Last year, the average ACT math score of students testing at Douglass was 15.3 compared to a district average of 18. These low scores are a contributing factor to the poor college admittance rates among low-income students. A university education is an almost necessary gateway to a higher socio-economic status. However, academic achievement gaps severely cripple underprivileged students by significantly decreasing the likelihood that they will obtain a bachelor's degree, thus greatly hindering any chance they have of making it out of poverty.

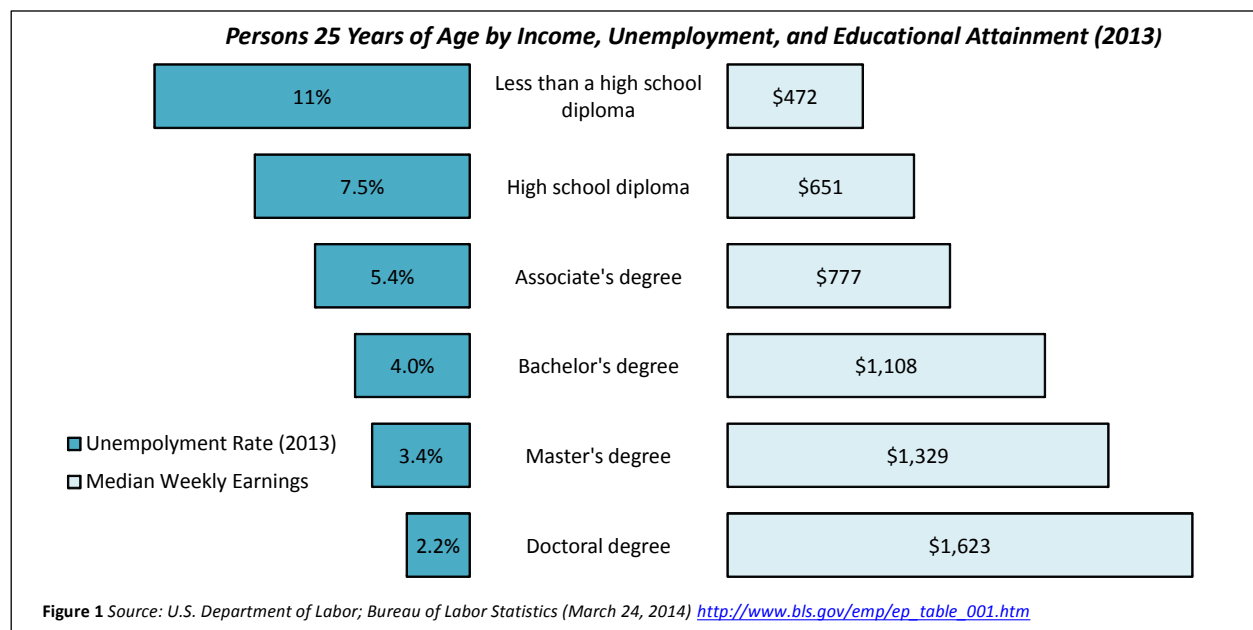
The CCA Urban ACT Prep Program will work hand in hand with the Center for Conscience in Action (CCA) in an effort to bridge the academic achievement gaps that are a result of economic disparity. We will offer an after school tutoring program located in the community around Douglass Mid-High School that focuses on the mathematics portion of the ACT. UCO student researchers will work one-on-one with underprivileged high school students and design a individualized curriculum of study. The CCA Urban ACT Prep Program will also offer registration and financial assistance to those students who are ready to take the ACT. This will all be in an effort to raise test scores and help those high school students gain college admittance.

In the upcoming pages, The CCA Urban ACT Prep Program will be explained in more detail. We will start in Section I by giving the background and motivation for this project as well as discuss the role of our community partnering organization, The Center for Conscience and Action. In Section II, you will find the goals of the CCA Urban ACT Prep Program and how the goals will be actualized. In addition, you will find a description of the role of students, their role in disseminating information, and how the program echos the mission and vision of UCO. In the final section, Section III, we will discuss our current evaluation criteria, how results will be disseminated, and the future of the CCA Urban ACT Prep Program.

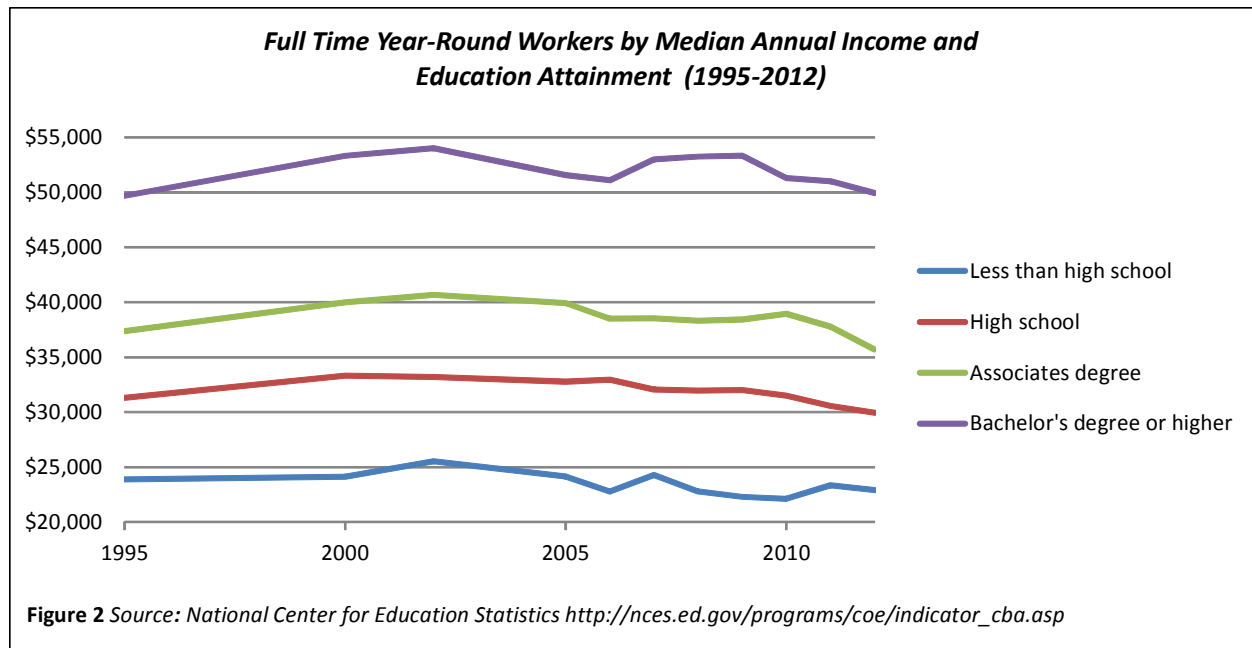
Section I: Background

The link between income and educational attainment has been studied extensively (see [1]-[15] and the references therein). In some sense it has a cyclical nature. On average, low-income students do not perform as well as their peers in K-12, have lower standardized test scores, and are less likely to enroll in a college or a university. Those that do enroll in postsecondary institutions are less likely to earn a degree which in turn significantly decreases their likelihood of ever making it out of poverty. This causes their children to face the same battle, thus perpetuating this detrimental cycle. In this section we will discuss the relationship between academic achievement gaps and income in more detail.

“Postsecondary education has become the threshold requirement for a middle-class family income” [5]. In 2013, persons 25 years of age whose highest degree attained was a bachelor's degree earned a median of \$1,108 per week, while those over 25 with only a high school diploma earned just slightly above half of this amount per week (see Figure 1).



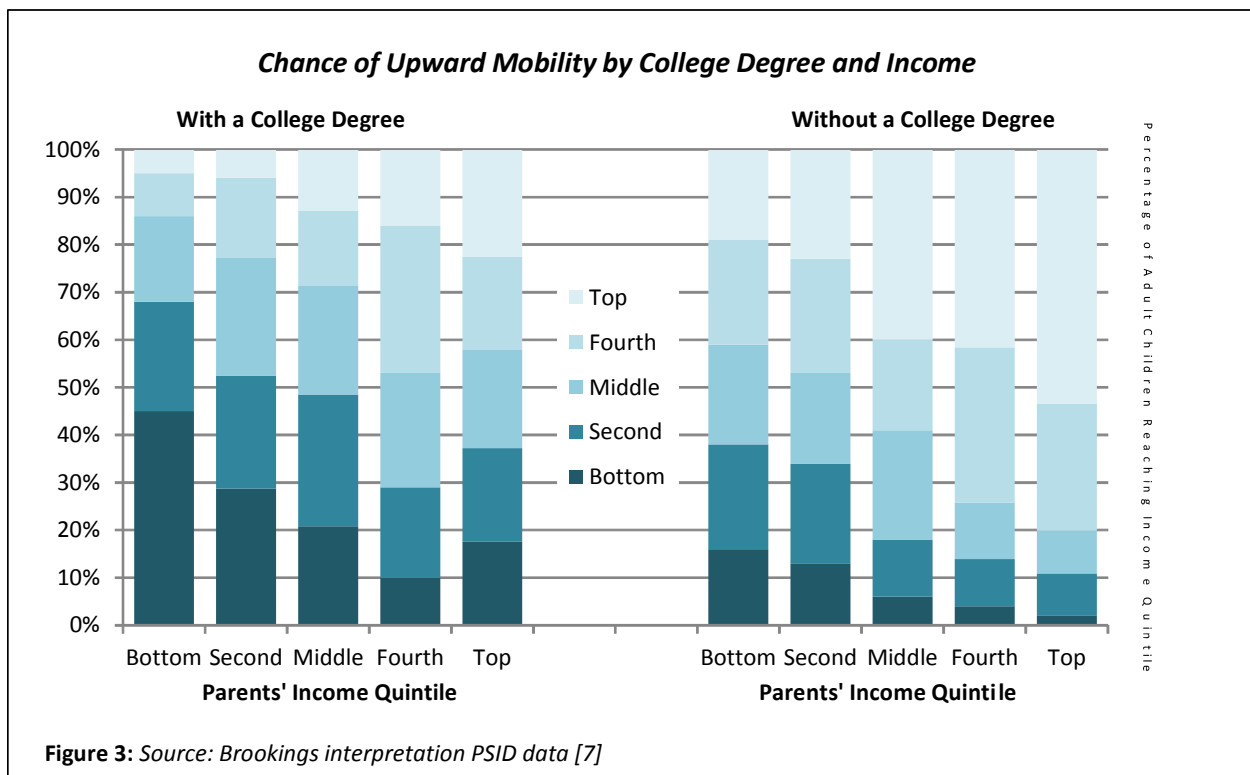
Furthermore, the unemployment rate amongst those with a high school diploma was 3.5% higher than those with a bachelor's degree. It has not always been this way. In 1970, 60% of those whose highest level of education was high school were considered middle-class as compared to 45% in 2007 [5]. This shift is partially due to the fact that the number of jobs requiring some post-secondary education increased drastically during the same time period. In Figure 2, we see



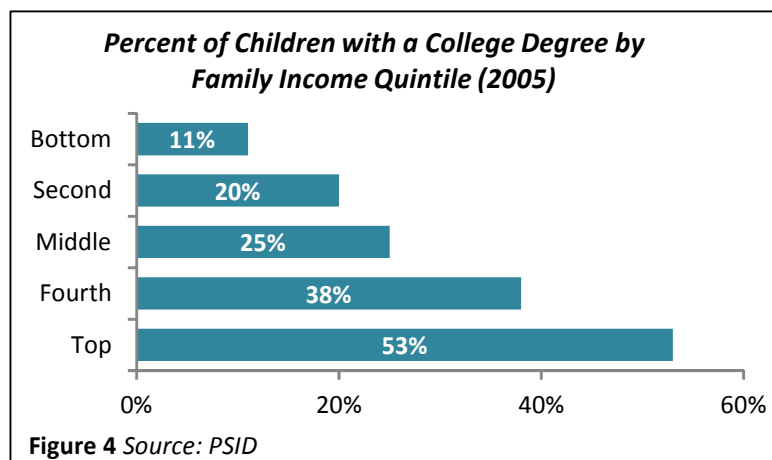
that the difference of nearly \$20,000 per year in the median annual income of those with a high school diploma versus those with at least a bachelor's degree has remained relatively stagnant since 1995. Note that the values in Figure 2 have been adjusted for inflation.

While a university education is not a requirement to be in the middle nor upper class, we see the likelihood that one will reach these socio-economic levels increases with a post-secondary degree. According to the Panel Study of Income Dynamics (PSID) out of the University of Michigan, children without a college whose parents are in the bottom income quintile have a 45% chance of their own income remaining in the lowest one-fifth and a 68%

chance of it remaining in the lowest two-fifths. Obtaining a degree cuts this chance by nearly half (see Figure 3). Unfortunately, if a child starts in the lower-class, the odds of obtaining a



postsecondary degree decrease, thus hindering his/her chance at upward mobility. Only 11% of children whose parents are in the bottom income quintile have a college degree compared to 25% of those whose parents are in the middle quintile (see Figure 4).



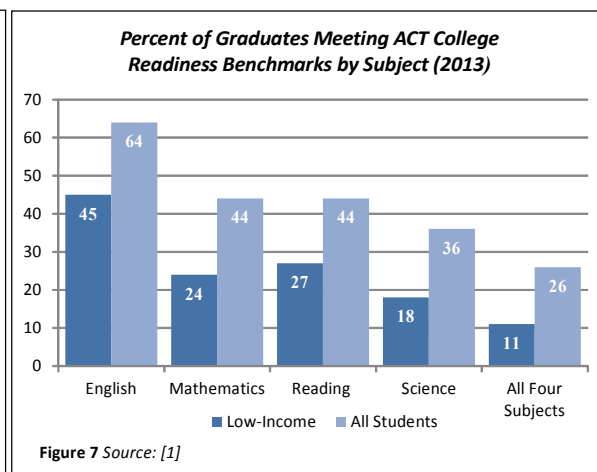
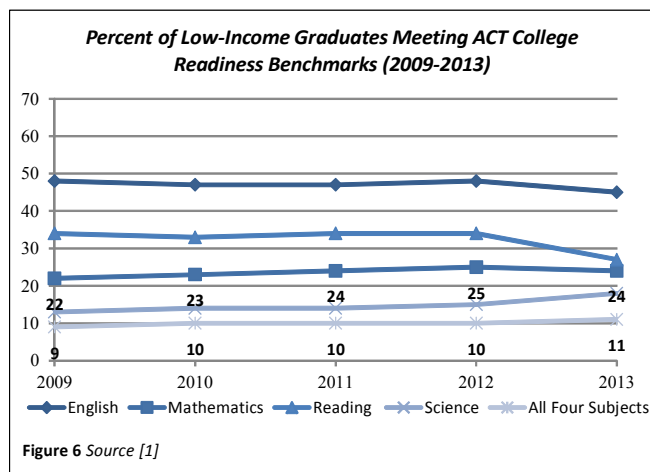
It is interesting to note that research shows the lower socio-economic students entering college are on average out performed by their peers entering at the same level of high school achievement [2], [9]. One of the many contributing factors to this phenomenon is that low-income students are more likely to under match when applying to and selecting a university - under matching has a negative effect on college persistence. Ultimately, the low-income student's struggle to obtain a post-secondary degree is compounded by the fact that they are less likely to enroll in college, less likely to be prepared for college, and less likely to persist through college graduation [10]. In 2007-2008, approximately 28% of high school graduates from high poverty schools attended four-year postsecondary institutions after graduation, while 52% of graduates from low poverty schools attended four-year institutions [12]. Note that poverty levels are determined by the number of students who qualify for free or reduced lunch. If over three-fourths of a school's student population qualify, then it receives a designation of "high," while under one-fourth of the population gives it a designation of "low." A student is eligible for free lunch if his/her family income is 130% of the federal poverty level and a reduced lunch if his/her family income is 185% of the poverty level. Currently, the federal poverty level for a family of four is an annual salary of \$23,850 putting the free and reduced lunch limits at \$31,005 and \$44,123, respectively.

The achievement gap is also reflected in low-income students' ability to reach the ACT College Readiness Benchmarks. These benchmarks are set by ACT and if the benchmark is achieved a student has a 50% chance of making a "B" or higher and a 75% chance of making a "C" or higher in the corresponding first year college course (see Figure 5). The benchmarks can also be used as an indicator of overall collegiate success: "...students who met the individual

ACT Subject	Benchmark	Corresponding College Course
English	18	English Composition
Reading	22	Social Sciences
Mathematics	22	College Algebra
Science	23	Biology

Figure 5 Source: [1]

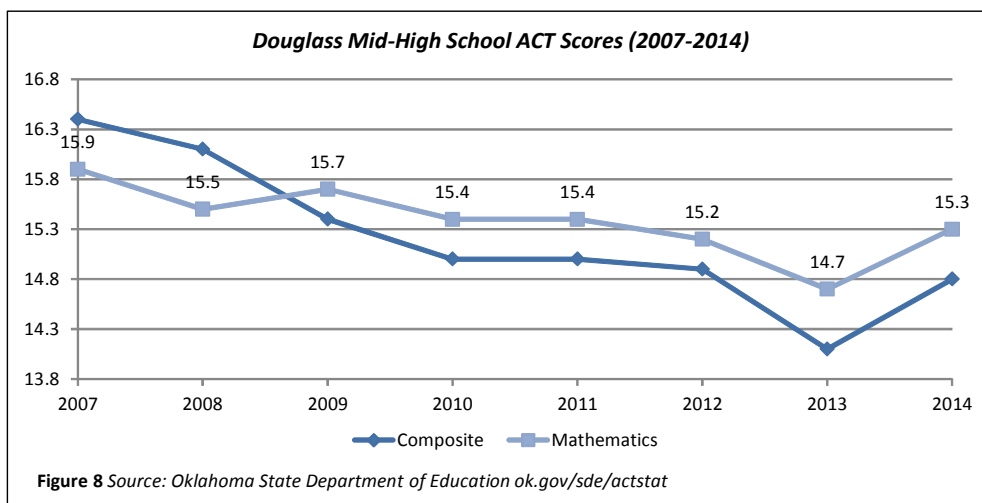
ACT College Readiness Benchmarks were substantially more likely than those who did not meet the benchmarks to enroll immediately in college the fall following high school graduation, to persist in college through degree completion and to earn a degree in a timely manner” [10]. In Figure 6, we see the percentage of low-income students that attained or surpassed the benchmarks in each of the four subject areas over a five year span. Note that ACT defines low-income students as those who report their family income is less than \$36,000 per year. Not only are these benchmark proportions stunningly low, they are significantly lower than their economically stable peers - the biggest gap being 20% on the mathematics portion of the ACT (see Figure 7).



The Oklahoma City Public School District (OKCPS) follows a similar trend. The national average for high school students eligible for either free or reduced lunch is 46.8% (the state average is 52.9%). However, the eleven non-charter high schools in the OKCPS have an

average of 78.5% students eligible. Seven out of the eleven can be classified as high poverty with two additional high schools less than 2% below the cut off. Of those students in the OKCPS who took the ACT in 2014, the average score on each of the four portions was below the ACT College Readiness Benchmarks, with the mathematics portion being 18.

Douglass Mid-High School is amongst the seven high-poverty high schools in the OKCPS. Located just northeast of downtown Oklahoma City, 82% of their high school population qualify for free lunch while an additional 2% qualify for reduced lunch. In 2014, the average ACT composite score for those who tested at Douglass Mid-High School was 14.8. The graph below (see Figure 8) details how students testing at Douglass Mid-High School



performed overall and on the mathematics portion of the ACT from 2007-2014. Bettinger, Evens, and Pope argue that scores on the English and Mathematics portion of the ACT are the best indicators of academic success in college [3]. We see in the chart above that students who tested at Douglass consistently scored below the mathematics benchmark and their scores have a downward trend.

As the data above indicates, underprivileged students are fighting a tremendous uphill

battle as they try to reach the stability of the middle-class. They face the greatest challenges in reaching the university level and struggle the most to be successful once reaching it. This creates a vicious circle; locking many into poverty because the educational opportunities needed for social mobility are unavailable to those who need it most. The CCA Urban ACT Prep Program will assist these students by helping them overcome the academic achievement gaps that have become synonymous with poverty.

Center for Conscience in Action- Community Partner

The Center for Conscience in Action (CCA) is a community organization working under the fiscal sponsorship of Joy Mennonite Church. It works to advance the role of personal conscience in civic life with an emphasis on nonviolence, justice, and community. Founded in 2004 (as “Oklahoma Coalition for Conscientious Objectors”) by a coalition of local organizations and individuals, the organization has expanded its mission to one that seeks to connect systems of injustice, inequality, and exploitation as root causes of distress, disassociation, and conflict, while offering solutions that feature compassion, solidarity, and healing.

Since inception, CCA has provided legal services for servicemembers and veterans, and provided information and guidance to young people looking for careers that are life-affirming, socially minded, and personally fulfilling. More recently, it has created programs to develop, fund, and promote community projects and educational campaigns that align with its mission.

They have partnered with individuals, churches, and outside groups “to advance a wider understanding of the nature of violence and the development of conscience and community as

tools to resist violence and build healthy cooperative relationships within communities and across nations.” During this transitional phase, they have been involved in movements towards a more green and sustainable society and funded and supported Restoring Justice Oklahoma (RJO), a project that works against injustices in the prison system by focusing on education. This naturally leads into issues of economic disparity.

As the CCA Urban ACT Prep Program fits within their goals of raising overall consciousness, they have agreed to match the funds provided by this grant. In addition to financial support, CCA will serve as a partner organization. They will help raise awareness in the community and provide a network of support. As the CCA Urban ACT Prep Program expands in the upcoming years, it will require the assistance of qualified community volunteers to help staff the program. CCA will play a key role in enlisting these volunteers and finding locations to house various tutoring programs.

James M. Branum, Legal Director of CCA, states:

“Education can get to the root of the violence in our communities by empowering young adults to achieve educational success. A first step for young people in Oklahoma who are seeking post-secondary education is the ACT, but all too often it is a barrier. In affluent communities, parents can afford to purchase ACT prep materials and even send their kids to ACT prep classes. But for many in Northeast Oklahoma City, these educational supports aren't present, and hence young people in this community achieve lower scores than they might otherwise achieve. We believe that the best way to change this dynamic is to level the playing field and provide high quality ACT prep classes to urban schools in OKC.”

Section II: Overview of the CCA Urban ACT Prep Program

The CCA Urban ACT Prep Program is an inner city tutoring program targeting low-income high school students. UCO students will work hand-in-hand with the PI to design and implement a program of study aimed at raising scores on the mathematics portion of the ACT.

The goals of the program are:

1. To help underprivileged students gain college admittance by providing them preparatory and financial support for the ACT that otherwise is unavailable to them.
2. To hone underprivileged students' study skills so that they will be more successful once entering college.
3. To provide students at UCO a transformative learning experience that engages them in the community while preparing them for employment.

The following will describe how each of these goals will be met.

Goal 1: To help underprivileged students gain college admittance by providing them preparatory and financial support for the ACT that otherwise is unavailable to them.

In order to achieve this goal, the CCA Urban ACT Prep Program will provide a weekly tutoring program focusing on the mathematics portion of the ACT. We will work with Douglass Mid-High School and the surrounding community to pinpoint low-income 11th and 12th grade students who will benefit from the program. Once students begin the program, we will first assess where they are mathematically and determine their deficiencies by having them complete a practice exam. Once their weaknesses have been pinpointed, they will be assigned a student

researcher (tutor) who will begin designing a tailored program to fit each of the high school student's individual needs. Note that each high school student will continue to work with the same student researcher throughout their time in the program. As students work through the program's curriculum, they will periodically re-test to monitor their progress and determine if any adjustments should be made to their individualized plan of study. Note that the PI will be present during each tutoring session.

In addition to tutoring, the CCA Urban ACT Prep Program will also provide general ACT support that includes:

- registration assistance,
- financial assistance,
- assistance with supplies.

We will provide registration assistance by aiding students with the application process and helping them determine whether or not they qualify for an ACT fee waiver. The program will also have funds available for student testing. These funds will be reserved for students who have spent time in the program and have either exhausted the fee waiver provided by ACT, or do not qualify. Finally, the program will provide pencils and ACT approved calculators for use during tutoring sessions and during the actual ACT exam.

Goal 2: To hone underprivileged students' study skills so that they will be more successful once entering college.

The CCA Urban ACT Prep Program will also incorporate test taking skills in the students' program of study: emphasize time management and prioritization, focus on conceptual

understanding rather than rote memorization, work within the test's grading rules to maximize the students' scores. We will highlight those skills and strategies that are most beneficial on the mathematics portion of the ACT, but also cover those pertinent to other portions. During our weekly meetings with students, we will be teaching both mathematics and exam preparation. These are skills that they can adapt to other circumstances and take with them throughout their academic careers, benefiting them past an ACT exam score. Test taking confidence and ability is useful in qualifying for higher education but also is essential for success within it.

Goal 3: To provide students at UCO a transformative learning experience that engages them in the community while preparing them for employment.

Actualizing this goal is, perhaps, the most unique and innovative portion of this project. The UCO student researchers, under the advisement of the PI and Co-PI, will be designing a tailored curriculum for their individual high school students. This will involve weekly meetings with the PI in addition to the outside tutoring. They will learn how to unpack the ACT exam by breaking it down topically, performing item analysis, and exploring current research. After the high school students take practice exams, the UCO student researchers will work with the PI to learn how to target deficient areas. From there, the student researchers will design and implement their study materials and practice exams. As a high school student progresses through the program, the student researchers will have the opportunity to simultaneously assess their effectiveness (both that of the high school students and the researchers) by tracking how that student does on both practice exams and the actual ACT exams. Student researchers will be required to present a poster at Oklahoma Research Day. This will allow them the opportunity to

display some of the materials that they have developed, justify their methodology behind the material, and evaluate the program's effectiveness up to that point.

This unique approach of connecting UCO students with underprivileged youth of the Oklahoma greater metropolitan area, provides a transformative learning experience that incorporates each of the Central Six (i.e., the six tenets of transformative learning). A short synopsis is provided below:

- Discipline Knowledge: The UCO student researchers will experience discipline knowledge in two ways. During the tutoring process, they will have to explain and articulate what they know mathematically. ACT level mathematics should not be a problem for the student researchers, however communicating mathematical concepts in a nonthreatening way is a challenge in itself. In addition, the experience of analyzing test data and customizing teaching to the constraints of a standardized test is an unwelcome but necessary part of mathematics education. Standardized tests are a fact of life for the time being, and it is part of the educator's task to deal with them and prepare students for them. Educators must perform item analysis, prioritize and focus on particular skills, and still generalize those skills so that students can meaningfully apply them in numerous ways. This is precisely what the CCA Urban ACT Prep Program will do.
- Leadership: We will be placing UCO student researchers in a position of leadership by making them both the tutor and the designer of curriculum. Leadership is incorporated in much deeper ways. Our student researchers will be asked to rise to the challenge of preparing high school students for higher education. They will build relationships, demonstrate focus, and offer encouragement to youth who are dealing with poverty and

the constellation of issues surrounding it. In any high school environment, how one communicates is just as important as what one communicates. The struggles of the community surrounding Douglass Mid-High School only amplify the need for integrity. UCO student researchers will be required to be well-prepared, confident, and yet sensitive to the specific challenges that will inevitably arise.

- Research, creative and scholarly activities: The UCO student researchers will prepare study materials based on their research with ACT and their interactions as tutors. The effectiveness of these materials will be assessed under the mentorship of the PI and Co-PI. These products – instructional materials, study guides, practice tests – will be consolidated into a poster presented at Oklahoma Research Day and potentially other conferences. They are also building the ground floor of this community-based project which will be a creative and much needed contribution to the discipline.
- Service Learning and Civic Engagement: Teaching at a suburban school district might be the dream job for some, but after having participated in the CCA Urban ACT Prep Program, UCO student researchers will have been exposed to something more. By building our student researchers' confidence and ability for this type of work, the hope is that they will continue to develop their commitment to public life and to service. They will begin to see themselves as powerful and capable agents of change.
- Global and Cultural Competencies: The program puts UCO student researchers in a community that greatly contrasts with the university campus and its surrounding neighborhoods. They will work within this community. Being a part of the program will raise their awareness of economic issues and how they effect our nation on such a broad

level. Specifically, it teaches them how to become active members of the community as they learn how to do their part in closing the achievement gaps that are a byproduct of economic disparity. Awareness of the world around them will be impossible to avoid. More than studying mathematics or mathematics education, in very real terms our students will be confronting the wider challenges and ideological perspectives of public education. They will see firsthand what outside obstacles stand in the way of academic success, and they will learn which strategies assist in bridging persistent educational achievement gaps.

- Health and Wellness: The correlation between poverty and low academic achievement is necessarily entangled with issues of wellness as articulated in the Central Six. Subtly and overtly, poverty negatively effects physical, spiritual, environmental, emotional, intellectual, and social/interpersonal wellness. The CCA Urban ACT Prep Program will directly contribute to wellness by offering encouragement and empowerment to some of those who are most overlooked by society. However, the indirect consequences of university education and upward social mobility will be even greater. Rather than merely offering treatment for the adverse symptoms of poverty, this program aims at the loftier goal of striking at the roots of poverty – reaching across socio-economic boundaries and partially leveling the playing field for those who, through no fault of their own, were born into unfair disadvantages.

UCO's Mission and Vision

The CCA Urban ACT Prep Program echoes both the mission and vision of the University of Central Oklahoma. As articulated above, the student researchers involved in the program will experience each of the central six, culminating in a transformative learning experience that surpasses what can be achieved in a classroom. Upon completion of the program, our UCO student researchers will have become “...productive, creative, ethical and engaged citizens and leaders serving our global community.” By partnering with a community organization and aiding underprivileged students in the heart of the Oklahoma City Metro Area, the CCA Urban ACT Prep Program shares UCO's vision as a metropolitan university by contributing to the “cultural, social, economic, and intellectual life of the region to realize our shared future.”

Section III: Evaluation, Dissemination of Results, and the Future

Evaluation:

As the CCA Urban ACT Prep Program is more of a service learning project rather than your standard research project, we will evaluate the program by looking at its overall effectiveness. To do this, we will consider the following:

- How did practice exam scores compare with ACT exam scores?
- Did the participating students raise scores on the mathematics portion of the ACT?
- Were the ACT composite scores of the participating students effected?
- Was multiple testing beneficial?
- Did participating students enroll in a college or university upon graduation?

We will evaluate these questions using the data collected (e.g., practice exam scores, ACT exam scores, demographics, etc.) throughout the year. In addition, we will track the high school participants upon completion of the course to see whether or not they enrolled in a college or university.

Dissemination of Results:

Our evaluation of the program will be disseminated at various venues. All participating UCO student researchers will be required to present their work at Oklahoma Research Day via a poster. In addition, the student researchers and/or the PI will search for appropriate conferences. An electronic collection of data will be kept for future articles, however, if the results are strong enough after a year, an article will be written for publication in a peer-reviewed journal. After we

have analyzed the data, we will give a report to the Center for Conscience in Action, our partner organization, so that they may give an update of the program in their newsletter. Moreover, once the ACT study materials and practice exams have been reviewed, we will make them available to the general public for free.

Future:

The CCA Urban ACT Prep Program will serve as a pilot program in the first year as we are only targeting the mathematics portion of the ACT and working in one low-income neighborhood in Oklahoma City. Throughout the pilot year we will not only be evaluating the programs' effectiveness, but also searching for the most meaningful way(s) of expanding. Ultimately, the CCA Urban ACT Prep Program will incorporate all four subject areas of the ACT and service multiple low-income communities in the Oklahoma City Metro area. As we expand, we will include more community volunteers in the actual tutoring process. This is where our partnership with the Center of Conscience and Action will flourish as they have a deeply rooted connection to the Oklahoma City Community. Moreover, the PI will search for external funding opportunities and additional community partnerships that will help realize these goals.

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