A.2 TARGET POPULATION

Target Community

Hirsch Academy: CFA will be located in the south end of the city of Scottsdale or southeast quadrant of the city of Phoenix, just north of the city of Tempe, within the boundaries of the Scottsdale Unified School District (SUSD) and Balsz Elementary School District (BESD). The target community may be further identified by major thoroughfares: AZ SR Loop 101 to the east, AZ SR Loop 202 to the south, North 44th Street to the west and East Indian School Road to the north.

SUSD is a large public school district in the state of Arizona, occupying 112 square miles. It serves 26,000 K-12 students in 33 schools. The school district serves the cities of Scottsdale, Phoenix, and Tempe. BESD is a small public school district consisting of five school campuses in the city of Phoenix. BESD serves approximately 2,900 K-8 students and feeds into the larger Phoenix Union High School District. In the target community of Hirsch Academy: CFA, three SUSD elementary and one middle school serve an average of 626 students per school in the targeted area for Hirsch Academy: CFA.

Furthermore, there have been two charter schools within the target community that offer a K-8 curriculum: Integrity Education Centre at 68th Street and Continental Drive and Sonoran Science Academy at 48th Street and McDowell Road. Integrity Education Centre served 59 students and demonstrated low academic performance in math, with 27.3% of students passing the AIMS test, and just above the state average for reading at 77.3% passing. Integrity Education Centre served an 83% free and reduced lunch population. The charter for Integrity Education Incorporated was not renewed by the Arizona State Board for Charter Schools (ASBCS) at the June 11, 2012 meeting because of continued low academic performance in math. Sonoran Science Academy serves 348 students with a free and reduced lunch count at 78%. Sonoran Science Academy's reading proficiency on AIMS was 71.8% and math proficiency was 49.6%. Their math and reading median growth was typical and higher than that of Integrity Education Centre.

Low middle school academic performance for SUSD's Supai Middle School and BESD's Orangedale Junior High Prep Academy, currently serving the Hirsch Academy: CFA target area, is the primary reason for the site location focus in this demographic area. With an enrollment of 540 students, Supai Middle School 7th and 8th graders exhibited a passing rate of 45.5% for math and 69.1% for reading. Orangedale Junior High Prep Academy has 440 students and a D label. Math proficiency is 42.6% and reading proficiency is 54.3%. Other factors considered for the Hirsch Academy: CFA site location make this a prime area for new school development, including a rising population of second-language and young families, many families who seek opportunity for their children through literacy and education on the democratic principles of U.S. citizenship, and an overall lack of school choice for an excellent, equitable classical education.

Target Community Data

South Scottsdale 85251 (Legislative District 10), 85257 (Legislative District 17)

Factor	School A	School B	School C	School D	School E	Average
General Information Great Schools.org Rating (1-10/high)	7	n/a	4	6	5	
School Name	Hohokam ES	Integrity	Supai MS	Tonalea ES	Yavapai ES	-
District or Charter	District/SUSD	Charter	District/SUSD	District/SUSD	District/SUSD	-
Location/Cross Streets (year built)	84th & Oak (1960)	68th & Continental not known	67th & Continental not known	68th & Oak (1958)	76th & Roosevelt (1961)	-
Zip Code	85257	85257	85257	85257	85257	
Grades served	PS-6	KG-12	7-8	PS-6	PS-6	PS-6
Number of students	598	59	540	625	730	626
Academic Data (2011)						
Math % Passing on AIMS (AZ 61%)	66.4	27.3	45.5	64.4	65	53.7
Reading % Passing on AIMS (AZ 76%)	84	77.3	69.1	76.7	74.5	76.3
Math Median SGP (AZ 50 SGP)	62 typical	35.5 typical	32 low	56 typical	44 typical	45.9 typical
Reading Median SGP (AZ 50 SGP)	67 high	58 typical	40 typical	49 typical	45 typical	51.8 typical
2011 AZ LEARNS Legacy Rating	Highly Performing	Performing	Performing Plus	Highly Performing	Performing Plus	-
2011 A-F Rating	A	N/A	D	B	B	-
Students						
Diversity of students (%)						-
White	42%	60%	42%	34%	29%	41.4%
Black	5%	16%	6%	6%	3%	7.2%
Hispanic	43%	21%	45%	55%	59%	44.6%
Asian	3%	4%	-	3%	2%	3%

Native American	6%	6%	6%	3%	8%	5.8%
Free and Reduced Lunch (an indicator of poverty)	72%	77%	64%	72%	75%	72%
English Language Learners	20% 91% Spanish/ Vietnamese/ English	0%	12% 96% Spanish/ Farsi/ English	29% 91% Spanish/ English/ Navajo	35% 93% Spanish/ Arabic/ English	
Other – Per Pupil Funding $11,292						
Special Programs	TV/EIS/Band/ Choir/Lang. Acq./Title I/Self-Contained SPED	Not specified	21st C. Academy/ After School Enrich/Sci. /Tech.	EIS/CK/SG/ Band/Basketball	EIS/After School Enrich	

Summary Description of Target Community

School Summary
Number of district and charter schools in your target area: 10
SUSD- Hohokam, Supai MS, Tonalea, Yavapai
BESD – Griffith, Brunson-Lee, Balsz, Orangedale Jr High
Charter – Integrity Education Center (non-renewal June 2012), Sonoran Science Academy
Highest Performing Similar School: Highly Performing/A
Lowest Performing Similar School: Performing Plus/D
Summary of school ratings: All five target area schools have low proficiency in math, with three of five having low median math SGP. Two of five have low proficiency in reading compared to the state average, with three of five demonstrating a low median reading SGP.

Demographics summary by zip code and district
Geographic area: Scottsdale USD; 85251, 85257
Race/Ethnicity breakdown: 41% White, 44% Hispanic, 7%, Black, 6% Native American, 3% Asian
Low Income Percentage: 72% free/reduced lunch

Target Population

A report provided by STBDonline.com in November 2011 provides a picture of the demographics of the area based on the United States Census for 2000 and 2010 and projections for 2015. Within a twelve-mile radius of Osborn Road and Hayden Road, the median household income range is $52, 234 - $57,260. Employed residents of age to work comprise 90.3% of the target population with 9.7% unemployed.

According to the STBDonline.com report report, 22.7% of those over 25 have obtained some college education, 20.7% have obtained a Bachelor's degree and 12.1% with a graduate degree. The significant data for our purpose is the 15.3% of residents who did not complete high school and the 21.4% who continued in school only as far as the end of high school and earned a diploma. The Hirsch Academy: CFA mission states that our students are prepared for the pursuit of personal excellence, for college, and for a lifetime as positive contributors in their community. The fact that 36.7% of the school-age population has not received a high school diploma is simply unacceptable and severely limiting for lifelong career choice. Almost 37.2% of the target area population is of child bearing and rearing age (ages 20-44).

The STDBonline.com report notes the demographics for the community as predominately Caucasian at 67.4% with the second largest demographic being Hispanic at 35.4% and growing. In the southwest quadrant of the target area, the population reflects a more balanced racial demographic, with 45% white and 55% Hispanic. The African immigrant population is increasing in this area.

Program of Instruction and Target Population Need

To summarize the target population information above, Hirsch Academy: CFA expects low economic diversity of urban students from low-income neighborhoods, varied cultural backgrounds, and with an array of academic skills. There may be a large English Language Learner (ELL) population.

The school's program of instruction, detailed further in section A.3 below, is based upon several curricular underpinnings: the *Core Knowledge Sequence* and Core Knowledge Language Arts (CKLA) program, Common Core State Standards (CCSS), Singapore Math, Open Court Imagine It!, and literature studies. The curriculum is supported by effective methods of instruction, including teacher-led direct instruction, differentiated instruction, and cooperative and project-based learning. This is supported by a rich character-education program, Kids at Hope and Love & Logic. Together, the curricular underpinnings, instructional methodologies, and character education programs have been used effectively with students in similar target populations to increase pupil achievement outcomes.

Benefits of the Core Knowledge Curriculum for the Target Population

One of Hirsch Academy: CFA's keys of learning is an excellent and rigorous curriculum based in the *Core Knowledge Sequence* and CCSS. As mentioned in section A.1 above, the Core Knowledge curriculum narrows the achievement gap, exhibited through academic performance and as typically demonstrated by students from various cultural and socioeconomic backgrounds, sometimes referred to as "advantaged or disadvantaged learners". According to the Core Knowledge Foundation, "[the] primary goal of… Core Knowledge…is to enable all children, regardless of background, to be fully literate – armed with the shared knowledge they need to participate fully in culture and civic life." Statistics provided by the Core Knowledge Foundation suggest the tremendous educational benefits the program provides for low-income learners:

- A 2000 study in Oklahoma City – a diverse district with a heavy low-income population – identified the value-added of the Core Knowledge Sequence to be "highly significant". Core Knowledge students out-scored peer groups on the Iowa Test of Basic Skills in many categories, including reading comprehension (57.6 vs. 53.1) and math concepts (59.3 vs. 56.3). The results for language usage (62.0 vs. 56.3) suggest Core Knowledge's effectiveness in addressing the language needs of ELL students.
- A more recent 2012 study in New York City, from the article "Nonfiction Curriculum Enhanced Reading Skills, Study Finds" identified the following results:
    - "Second graders who were taught to read using the Core Knowledge program score significantly higher on reading comprehension tests than did those in comparison schools."
    - "[For] each of the three years, students in the Core Knowledge program had greater one-year gains on a brief reading test than their peers in the comparison schools. The difference was most pronounced in kindergarten, when the scores of children following Dr. Hirsch's method showed increases that were five times those of their peers…"

In addition, supported by effective instruction, the Core Knowledge curriculum has the potential to "come alive" for students. Core Knowledge provides a focus on relating what learning occurs in school with the larger world around them by providing real-life experiences as well.

Core Knowledge provides a rich content of core knowledge which, when shared by all American citizens, binds us as a nation. The focused effort to include literature and lore of our nation and to base the reading, writing, memorization, and character development on great works of literature will enrich all children and by extension, enrich our nation. This is especially beneficial for the target population of Hirsch Academy: CFA, which, as identified above, encompasses significant immigrant communities.

Qualitatively, Core Knowledge also provides common ground for communication and increases teacher, student, and parent engagement. As stated by Carol Ann Tomlinson when reporting on a Core Knowledge teacher's commitment to her students, "their teacher taught them about math, science, literature, and social studies. She also taught them about what it means to build a contributing life – and how to own that opportunity." These additional benefits provide cohesive links between the richly diverse urban community of Hirsch Academy: CFA's target population.

<u>Benefits of Common Core for the Target Population</u>

In addition to Core Knowledge, CCSS will be an integral part of Hirsch Academy: CFA's program of instruction. The National Council of La Raza has identified significant benefits of CCSS for low-income and Hispanic students. From its 2012 report "Raising the Bar: Implementing Common Core State Standards for Latino Student Success", the following benefits were identified (with original emphasis included):

- "Ensure that all students, regardless of ZIP code, income, race, or ethnicity, will be taught and held to the *same, high* standards that are aligned to college and work expectations; [and]

- "Ensure that all students have access to high-quality educational content, supports, and opportunities that research has demonstrated are essential to postsecondary success."

This report suggests that adoption of CCSS and Core Knowledge will prove beneficial for the racially and ethnically diverse low-income students in Hirsch Academy: CFA's target population.

Benefits of Singapore Math for the Target Population

Hirsch Academy: CFA will use the highly-effective Singapore Math program for mathematics instruction. The target population, as mentioned in previous sections, has low math proficiency scores. Singapore Math is predicated on the reality that "all children learn differently" (Hu, 2010). Singapore Math focuses both on number sense and concepts, which will increase both students' mathematical outcomes and overall skill. A focus on mastery ensures that students have the prerequisite background knowledge necessary to move on to more complex concepts. Additionally, the focus on foundational mathematics concepts in the lower grades has proven to be a leading indicator for future mathematics success, suggesting a long-term in the improvement of the target community's mathematical education outcomes with the usage of the concept-rich Singapore Math curriculum (Niederberger, 2012). This approach makes sure that gaps in mathematics learning are proactively addressed, instead of perpetuated.

Benefits of Open Court Imagine It! for the Target Population

The Institute of Education Sciences What Works Clearinghouse found, through a meta-analysis of the research surrounding the Open Court Imagine It! program, that the program had "positive effects on comprehension for adolescent readers." Considering Hirsch Academy: CFA's focus on improving students' educational outcomes, and the vital role comprehension plays in overall reading ability, the Open Court Imagine It! program is thus a logical program to improve the reading outcomes of the target population.

Benefits of Literature Studies for the Target Population

The Core Knowledge curriculum places a heavy emphasis on the teaching of reading through classical literature. For example, the Core Knowledge Sequence includes Mark Twain's *The Prince and the Pauper* in 6th grade and the works of Poe throughout middle school. This additional focus on rigorous text not only builds students' cultural literacy through exposure to common literary allusions and rich vocabulary, is supported by the "positive correlation between how much time students spend reading and high scores" (Hollander, 2012). Thus, the focus on literature studies and reading rich text throughout the middle school grades will be beneficial for the target population by providing needed additional reading time, which in turn will support higher reading outcomes.

Benefits of Instructional Methodologies for the Target Population

The second key to learning at Hirsch Academy: CFA is highly-effective teachers implementing strong instructional practices. Hirsch Academy: CFA will use highly-effective instructional

methodologies supported by research and best practice. These methodologies will include teacher-led direct instruction, differentiated instruction, and cooperative and project-based learning. Each is supported by a body of research and best practice, some of which is detailed below:

- *Teacher-led direct instruction* has been proven in several studies to dramatically increase low-income students' reading scores; one study from a Title I school in Utah found "very large gains…on the…Woodcock Johnson Reading Test (WJRT)," in which "far more than 50 percent of students scored in the highest ranges on the passage comprehension test of the WJRT" (Schug et al., 2001).
- *Differentiated instruction* allows teachers to teach directly to individual students' learning needs. Classrooms utilizing differentiation strategies have been proven more effective than classrooms which do not differentiate. (Tomlinson et al., 2003).
- *Cooperative learning* structures, based on the work of Dr. Spencer Kagan, have been proven to "increase academic achievement, improve social skills and social relations, improve thinking skills, reduce discipline problems, and [facilitate the] acquisition of leadership and employability skills." This will support pupil achievement and overcome the achievement gaps facing the target population. (Kagan, 2008).
- *Project-based learning* has been proven to lead to "academic gains equal to or better than those generated by other models" and "opportunities to develop complex skills, such as higher-order thinking, problem-solving collaborating, and communicating" (Intel, 2007). Such skills will support the closure of the achievement gaps facing low-income students in the target population.

Benefits of Kids at Hope and Love & Logic for the Target Population

Kids at Hope and Love & Logic provide opportunity for students to learn and practice effective and positive citizenship, and to explore "more college and career opportunities earlier on so they can understand what content knowledge, learning skills, and cognitive strategies are necessary to succeed in a particular career pathway or college major" (Conley and McGaughy, 2012).

Conclusion

According to the evidence above, the entire instructional program of Hirsch Academy: CFA will be based upon a solid foundation of research and best practice, ensuring that all facets of the instructional program, including curriculum, instruction, and character education, are proven to support improved pupil achievement in the target population.

Class Size and Target Population Need

While the existing schools are rated as Performing or above, the schools located in the target area feed into middle schools that are failing their students. Furthermore, the small numbers of charter schools operating in the area provide parents and students with little or no option to choose a school with an excellent and equitable classical education, or with smaller class sizes and a reduced teacher to student ratio.

Class size

Hirsch Academy: CFA will exert all effort to ensure that the school will not exceed 650 students on a single K-8 campus. In addition, Hirsch Academy: CFA will strive to keep most **class sizes at 18-26** depending on grade level and classroom size. Kindergarten class sizes should be from 18-22 students.

Teacher/Student Ratio

Kindergarten will be expected to have a class size of 18-22 students, and will not exceed 22 students without the assistance of a classroom aide. Grades 1-8 will accommodate between 24-26 students. However, if a 1st-8th grade class exceeds 26 students, Hirsch Academy: CFA will provide an aide to assist the classroom teacher.

Research has shown that reducing class size, particularly in the early grades, is an educational strategy shown to increase learning and narrow the achievement gap for minority and low socio-economic groups. The following points are from a fact sheet prepared by Leonie Haimson, Executive Director, Class Size Matters, June 2010, available at www.classsizematters.org/benefits:

- The Institute of Education Sciences, the research arm of the US Department of Education, concludes that class size reduction is one of only four, evidence-based reforms that have been proven to increase student achievement through rigorous, randomized experiments – the "gold standard" of research.

- Studies from Tennessee, Wisconsin, and elsewhere demonstrate that students who are assigned to smaller classes in grades K-3rd do better in every way that can be measured: they score higher on tests, receive better grades, and exhibit improved attendance.

- Those students whose performance improves the most are those who need the most help; children from poor and minority backgrounds, who experience twice the gains as the average student. Alan Krueger of Princeton has estimated that reducing class size in the early grades shrinks the achievement gap by about 38%.

- Smaller classes are also a very cost-effective strategy to lower the number of students who repeat grades. In Nashville schools, only 16.7% of students who were in smaller classes in the early grades were held back through 10th grade, compared to 43.5% of those who had been in regular-size classes.

- The benefits of class size reduction in the early grades last throughout a student's educational career. In 4th, 6th, and 8th grade, students who attended smaller classes in the early grades were significantly ahead of their regular-class peers in all subjects. By 8th grade, they were still almost a full year ahead of their peers.

- In high school, students who had been in smaller classes had significantly lower drop-out rates, higher grades, and received better results on their college entrance exams. After four years in a small class in the early grades, the graduation rate for free-lunch students more than doubled, and their likelihood of graduating equaled those who were not poor.

For those who had attended a smaller class in grades K-3, the difference between black and white students taking college entrance exams was cut in half.

- A definitive study commissioned by the US Department of Education analyzed at the achievement levels of students in 2,561 schools across the nation, as measured by their performance on the national NAEP exams. The sample included at least 50 schools in each state, including large and small, urban and rural, affluent and poor areas. After controlling for student background, the only objective factor found to be correlated with higher student success as measured by test scores was class size – not school size, not teacher qualifications, nor any other variable that the could be identified. The gains from smaller classes in the upper grades surpassed the gains from smaller classes in the lower grades.

Although this study did not note ideal class size ratios, further studies at classsizematters.org have noted class size range from 15-25 students, with 19 students being preferable for Kindergarten, 20 students in 1st and 2nd grades, and a class size under 25 as effective for grades 3-8.

Hirsch Academy: CFA may enroll up to two extra students in each classroom beyond the ideal capacity and keeping in mind our school enrollment cap. As has happened at other TeamCFA schools in Arizona, some students enroll but do not attend. However, the school is required to hold those seats available until the first day of school. Because Hirsch Academy: CFA must hold seats open for enrolled students, it is likely that students placed on a waiting list will go elsewhere and be reluctant to re-enroll in Hirsch Academy: CFA.

In addition, the Phoenix Metropolitan Area has a high mobility rate and it is typical for a percentage of students to withdraw during the year. By top loading a class at the beginning of the year, the school can absorb the loss and avoid reduction of revenue from no-shows and transfers.

In addition to the many benefits offered from smaller class sizes, many parents prefer the more personalized atmosphere of a smaller school. Challenge Foundation Academies traditionally do not exceed an enrollment of 650 students and strive to ensure that the class sizes do not exceed 20 students in a full-day Kindergarten or 25 to 26 students in Grades 1st-8th. Hirsch Academy: CFA will provide smaller class sizes, a better student to teacher ratio, and an excellent classical education with a focus on building an educated citizenry on the principles and positive actions of democracy. We use research-based, proven math and reading programs and current best-practice instructional strategies towards 21st century global understanding and positive contributions to the community and society at-large.

This community was, at one time, a small rural agricultural area. However, the rapid growth that the State of Arizona and Maricopa County experienced in the past few decades has helped turn this small community into a well-developed urban expanse of family homes. There continues to undergo a great socio economic and cultural change, and smaller schools such as Hirsch Academy: CFA will be better prepared to meet the demands of this change more rapidly than a large district.

Sources

- Arizona Charter Schools Association. (2012). Education evaluator. Retrieved from www.azcharters.org/maps.
- Balsz Elementary School District. (2012). Balsz Elementary School District. Retrieved from www.balsz.k12.az.us.
- Class Size Matters. (2012). Class size matters. Retrieved from http://www.classsizematters.org/.
- Conley, D. T. and McGaughy, C. (2012, April). College and career readiness: same or different? *Educational Leadership*, pp. 28-33.
- Core Knowledge Foundation. (2012). Core Knowledge. Retrieved from www.coreknowledge.org.
- Hollander, C. M. (2012, April 20). Teach the books, touch the heart. *The New York Times*, p. SR4.
- Hu, W. (2010, Sept. 30). Making math lessons as easy as 1, pause, 2, pause… *The New York Times*, p. A1.
- Intel Teach Program. (2007). Benefits of project-based learning. Retrieved from http://download.intel.com/education/Common/ro/Resources/DEP/projectdesign/DEP_pbl_research.pdf.
- Kagan, S. (2008, Summer). Kagan structures simply put. Retrieved from http://www.kaganonline.com/free_articles/dr_spencer_kagan/ASK38.php.
- National Council of La Raza. (2012). Raising the bar: implementing Common Core State Standards for Latino student success. Retrieved from http://www.naleo.org/institutes/Campaign_for_High_School_Equity_2012/NSBA%20speaker%20presentations/Session%20I/Erika%20Beltran/NCLR_CCSS_Implementation_Guide.pdf.
- Niederberger, M. (2012, June 19). Formula written for math success. *The Pittsburgh Post-Gazette*. Retrieved from http://www.post-gazette.com/stories/news/education/formula-written-for-math-success-640962/.
- Phillips, A. M. (2012, March 11). Nonfiction curriculum enhanced reading skills, study finds. *The New York Times*, p. A15.
- Sales Force. (2012). Sales Force. Retrieved from http://www.salesforce.com/.
- Schug, M. C., Tarver, S. G., and Western, R. D. (2001, March). Direct instruction and the teaching of early reading. Wisconsin Policy Research Institute Report. Vol. 14, Number 2. Retrieved from http://www.wpri.org/Reports/Volume14/Vol14no2.pdf.
- Scottsdale Unified School District. (2012). Scottsdale Unified School District. Retrieved from www.susd.org.
- STDB. (2012). STDB demographic reports. Retrieved from http://www.stdbonline.com/.
- Tomlinson, C. A., et al. (2003). Differentiating instruction in response to student readiness, interest, and learning profile in academically diverse classrooms: a review of literature. *Journal for the Education of the Gifted*. Vol. 27, Number 2/3.

- Tomlinson, C. A. (2012, April). Watching us work. *Educational Leadership*. Vol. 69, Number 7, pp. 92-3.