A.2 Target Population

The Arizona Autism Charter School (AZACS) will serve students affected by Autism Spectrum Disorders (ASD) in grades K-5, living within the Phoenix Union High School District and the surrounding areas in metropolitan Phoenix. Autism is the fastest growing serious developmental disability affecting **1 in 64** children in Arizona according to a national study released in March of this year by the Centers for Disease Control and Prevention (CDC). The national incidence of autism across the nation is 1 in 88, making the prevalence in Arizona significantly higher. The condition occurs in all racial and ethnic groups and is five times more likely to strike boys than girls. Children with autism have mild to severe deficiencies in communication, self-help and social-emotional skills. Many have major behavioral challenges as well. Many school districts are struggling with the boom in autism cases. With so many competing interests at a typical public school, families struggle daily to get the services their children need to learn. Parents who have the means often send their autistic children to private schools paying tuition rates between $22,000 and $35,000 a year. Parents who can hire advocates often undertake costly battles to get school districts to pay for private schools. Most families living with autism in the Phoenix Metro area don't have these options.

AZACS will offer a high-quality, tuition free education option for families living with autism and will raise awareness of autism in the area and within the school system. In short, AZACS will empower parents to choose a tuition-free school where their children are the priority, where student-teacher ratios will be optimal for students with autism and where the curriculum will be individualized, results driven and delivered specifically using the principles of Applied Behavior Analysis (ABA). Although our target population is students with ASD, our individualized programs of instruction, small class sizes and ABA strategies would be beneficial for any student wishing to enroll.

More specifically, our target population is students with ASD in grades K-5, currently attending self-contained special education programs in the Phoenix Metro area including the 13 elementary districts feeding into the Phoenix Union High School District. These districts are Alhambra Elementary District, Balsz School District, Cartwright School District, Creighton School District, Isaac School District, Laveen School District, Madison School District, Murphy School District, Osborn School District, Phoenix Elementary School District, Riverside Elementary School District, Roosevelt School District and Wilson School District. There are approximately 76,850 students in these 13 districts. Based on the latest CDC statistics and the number students in our target school districts, there are up to 1,200 students with autism attending the elementary school districts in our target area.

The latest autism prevalence statistics were compiled by the Arizona Developmental Disabilities Surveillance Program (ADDSP), a partnership between the University of Arizona and the CDC. The study was conducted specifically in a subset of Maricopa County, including metropolitan Phoenix, our target location. This is the most up-to-date, reliable and discrete data on the prevalence of autism in the Phoenix Metro area. A breakdown of the latest CDC statistics indicates the following:

Autism Spectrum Disorder (ASD) Prevalence

Results based on 2008 medical and school records of 32,601 Maricopa County 8-year-olds.

- Number of children identified with ASDs: 507
- Total prevalence of ASDs: 15.6 per 1,000 or **1 in 64**
- Boys: 25.1 per 1,000 or **1 in 40**
- Girls: 5.4 per 1,000 or 1 in 185

Race/Ethnicity

- White: 20.7 per 1,000
- Black 16.1 per 1,000
- Hispanic: 8.9 per 1,000
- Asian or Pacific Islander: 19 per 1,000

Age of Diagnosis

- Autistic Disorder: 4 years, 8 months
- Pervasive Developmental Delay (PDD): 4 years, 6 months
- Asperger Disorder: 6 years, 4 months

Community Demographics

An analysis of the demographics of the Phoenix Metro area indicates that this is an underserved area in terms of education options and services for all students, and especially for special education students. Students come from predominantly Hispanic, low-income families with lower than average access to health care, making it difficult to address the needs of their children with autism and other related disorders.

The general ethnicity demographics of the area indicate that about 74% of students are Hispanic, 12% are White, 10% are Black, and about 4% are American Indian/Alaskan or Asian/Pacific Islander. More than 75% of students qualify for free or reduced lunch and more than 30% of students are English Language Learners (National Center for Education Statistics).

These demographics are important as it relates to autism because according to 2007 U.S. Department of Education statistics, Latino children are half as likely to be identified with autism and served in the education system as Anglo children. Furthermore, most children are identified only after they're enrolled in school, making the role of public school critically important. Because children in these circumstances are identified later, they have missed out on critical early intervention services which are supposed to occur between 18 months and 5 years of age. These children have a great deal of catching up to do once they are identified with autism and are in school.

Performance of Elementary Districts Feeding into Phoenix Union High School Districts in Meeting the Needs of Students with Autism

Although data on state test results is not available specifically on students with autism, the Arizona Department of Education does publish AIMS results for students with disabilities in general. Unfortunately, the test scores for students with disabilities in the 13 school districts feeding into the Phoenix Union High School District indicate that about 85% failed to pass the AIMS test in both the areas of math and reading.

The public school programs available for students with autism in the Phoenix Metro area are based on eclectic approaches that pull from various types of curriculums, models and methodologies. Some of the school districts report using methodologies such as TEACCH (**T**reatment and **E**ducation of **A**utistic and **C**ommunications-**H**andicapped **CH**ildren), sensory integration and even some ABA strategies. Of the programs that use some ABA strategies, none are supervised by a Board Certified Behavior Analyst (BCBA), the only professionals who have the training and credentials in this discipline.

Although using eclectic approaches may seem appropriate for educating students with autism, research indicates it is not as effective as implementing a program based exclusively on the principles of ABA. A 2005 study published in the journal Research in Developmental Disabilities is one of many that finds that eclectic approaches yield few gains for students and can even cause students to regress. Study author Jane S. Howard, California State University, Stanislaus and The Kendall School states, "Eclectic approaches were not only ineffective, they produced *negative* mean change in scores in multiple domains. In short, the effect of eclectic approaches was to flatten or decrease rather than increase the slopes of developmental trajectories of most children." The study also concurs with dozens of others that have found that programs based on ABA and regular data collection yield measurable results, leading many students to transition out of special education.

The CDC has stated that the rise in autism spectrum disorders is an "urgent public health concern" and urges community organizations to collaborate to offer solutions for families living with this condition. Currently, there are no medical interventions that can "cure" autism. What physicians and researchers do agree on is the efficacy of behavioral interventions in improving symptoms of autism. In fact, the American Academy of Pediatrics and the Surgeon General have endorsed ABA as the methodology that provides the most effective outcomes.

How the Arizona Autism Charter School Will Meet Student and Community Needs

AZACS will offer students individualized programs of instruction based on the principles of ABA. Customized student programs will be developed and supervised by a Board Certified Behavior Analysts (BCBA) with a track record of success in working with students with autism. BCBAs are the only professionals who have the credentials and training to ensure ABA programs are implemented with fidelity therefore; AZACS will always have BCBAs on staff to supervise programs of instruction and train teachers and paraprofessionals. Students will be assessed upon enrollment using tools such as the ABLLS and VB-MAPPS, which are specifically geared toward our target population. Data will be taken daily to

ensure goals are appropriate and that there are consistent, measurable gains in all academic areas based on the Arizona State Standards/Common Core Standards. This type of program is optimal for children with autism but can also be very effective and beneficial for typical students with behavioral and motivational issues.

As mentioned previously, teachers and staff will be trained in ABA strategies by a BCBA prior to working with students. Training will be intensive and hands-on and will take place throughout the school year. In addition, staff will participate in training and coaching parents in ABA techniques to ensure strategies are implemented across all environments. This training and coaching will be offered in English and Spanish so that all parents can participate in their children's education regardless of language preference.

In addition, there is a body of anecdotal evidence indicating that low-income Hispanic families have a very difficult time navigating the system that is supposed to provide services for children with autism. Although most children with autism qualify for therapy services such as habilitation, speech and occupational therapy, parents must know how to advocate for those services with the Department of Developmental Disabilities. In addition, there is a shortage of Spanish speaking therapists available to treat children therefore; many go without these vital services. AZACS will provide these families access to certified professionals qualified to work with children with autism who can offer training and coaching so that strategies are also implemented in the home. This level of service will make AZACS more than a school; it will be a hub for families offering parent training, support groups, resources for families living with autism as well as after-school therapies and social groups.

Autism Charter Schools in Other States

In order to understand the impact of a charter school focused on children with autism, the AZACS team researched other charter schools across the nation focused on this population. A 2008 report commissioned by the U.S. Office of Special Education Programs and authored by the National Association of State Directors of Special Education says that at that time, there were at least 20 other charter schools in 13 states focused on children with ASD. AZACS has researched some of these schools including South Florida Autism Charter School, New York Center for Autism Charter School, Foundation School for Autism in Texas, Autism Academy of Learning in Ohio, Spectrum Charter School in Pennsylvania and Lionsgate Academy in Minnesota. It is clear that these schools are responding to an overwhelming community need based on the fact there are always more applicants than there are openings in the school. For example, this year the New York Center for Autism Charter School had 78 applications for just two openings. AZACS has learned that all of these schools must conduct a lottery for available spots because of the high demand for their specialty in autism education. All of the schools also subscribe to a program based on Applied Behavior Analysis. With the incidence of autism being higher in Arizona than in most other states (**1 in 64** versus the national prevalence of 1 in 88) it is time for Arizona to join the other states that offer a charter school option for students with autism that is grounded in ABA delivered by the highest level of professionals in this field.

AZACS has also learned about enrollment trends in these alternative charter schools targeting students with autism. The AZACS team interviewed the school leaders of the six schools mentioned above and

found that approximately 98% of their applicants were diagnosed with autism. The remaining 2% of students seeking admission to these schools were students with other diagnosis also requiring special education and IEPs. All school leaders said it was rare to get applicants who were typically developing students who did not require special education services. AZACS believes a similar trend will follow here in Arizona and students who are truly in need of the program offered at the school will be the ones to seek admission.

The investment we make in the education of children with autism today can also help reduce the future costs the Central Phoenix community will incur in caring for children with ASD as they grow into adulthood. A 2006 study conducted by the Harvard School of Public Health says it can cost about $3.2 million to take care of an autistic person over his or her lifetime. Nationally, caring for all people with autism over their lifetimes costs an estimated $35 billion per year. With Arizona having a higher incidence of Autism than the rest of the nation, this a problem that needs to addressed now. AZACS's mission and driving force is to help individuals with autism live as independently as possible. This will be accomplished by empowering students to reach their full potential academically and in their functional life skills. Our goal will be to mainstream capable students into general education classrooms so they are able to graduate from high school and go to college with their typically developing peers. For students on the lower end of the autism spectrum, the goal will be to equip them with the skills necessary to transition to a vocational program for adults with special needs.

Class Sizes and Student-Teacher Ratios

The average class size for self-contained special education programs in our target area is 14 students. The average student teacher ratio is 4.67 students per instructor. As mentioned previously, the programs offered for students with autism are based on eclectic approaches and not specifically on Applied Behavior Analysis. There are no autism programs within the target area supervised by Board Certified Behavior Analysts. About half of the self-contained programs in the 13 elementary districts feeding into Phoenix Union High School District group autistic students with students with various other disabilities, making it difficult for educators to focus on best practices for autism specifically.

Many ABA strategies require individualized instruction. In order for programs to be implemented effectively in a school setting, class sizes must be small, with low student-teacher ratios. Classes at AZACS will be limited to nine students with one lead teacher and at least two highly-trained paraprofessionals. Students with autism have various levels of functioning and academic abilities that don't necessarily correlate with age or grade level. For this reason, AZACS will have multi-grade classrooms that will group students based on their needs and abilities. AZACS plans to have one kindergarten classroom, four 1st-3rd classrooms and four 4th-5th classrooms for a total of nine classrooms. Depending on enrollment, AZACS plans to offer two grade-level classrooms that will operate as similarly as possible to a typical public school program. These classrooms will be used for students who are getting ready to transition back to a more typical public school setting, but still need supports.

Small class sizes and 3:1 ratios will ensure each student's program and progress is monitored and adjusted based on daily data and measurable results. For students with autism, this level of education can be life changing. By using these evidence-based strategies, students who are non-verbal can learn to communicate, read, write and use technology. Higher functioning students can learn to tap into their interests in productive ways and acquire the self-management and social skills necessary to transition to

mainstream education. By offering students individualized education programs grounded in Applied Behavior Analysis, small class sizes and low student-teacher ratios students will have the best chance at reaching their full potential. This level of education would help bridge the gap in autism services in the Phoenix Metro area and would serve as a model for other educational entities serving this population.