A.2 Target Population

Western School of Science and Technology: A Challenge Foundation Academy ("Western Tech: CFA") proposes to serve students and families in Phoenix's Maryvale community, roughly defined as the area south of Camelback Road, east of 91st Avenue, north of Interstate 10, and west of Grand Avenue. The majority of the target community is in Arizona's Legislative District 29. In addition, the neighborhood includes portions of the Alhambra Elementary, Cartwright Elementary, Isaac Elementary, Pendergast Elementary, and Phoenix Union High School Districts. Figure A.2.1 is a map of the neighborhood as defined by the Maryvale Village Planning Committee. [1]

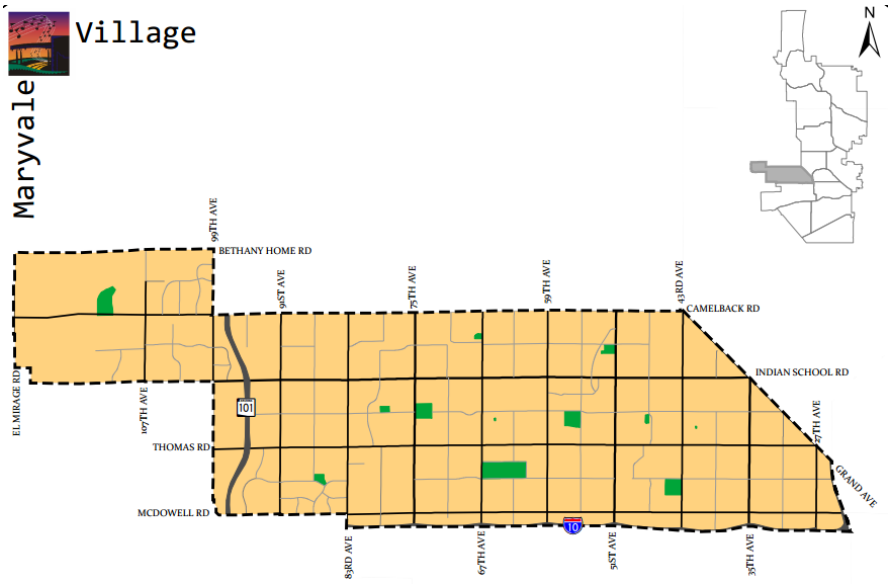

Figure A.2.1: Map of Maryvale

Maryvale is a neighborhood plagued by poor educational outcomes. Only one of the high schools in the target neighborhood received an A-F Accountability Grade higher than a C during the 2011-2012 school year; three of six received a D. In addition, under the old Legacy Rating system, not one high school in the target neighborhood was rated "Highly Performing" or "Excelling."[2]

A. Description of Target Population

Analysis of Community

The "Making Strides in Maryvale" report produced by the Arizona State University Center for Violence Prevention and Community Safety in 2006 described several challenges in the Maryvale neighborhood: "Like many inner-city communities…Maryvale has struggled with troubling realities of high crime rates, urban decay and rapidly changing demographics."[3] The rest of this section provides context and analysis around the target neighborhood for Western Tech: CFA.

[1] Maryvale Village Planning Committee. Boundary map. Retrieved from http://phoenix.gov/pdd/pz/vpmaryvale.html.
[2] Arizona Charter Schools Association. (2012). Education evaluator. Retrieved from https://azcharters.org/maps.
[3] ASU CVPCS. (2006). Making strides in Maryvale. Retrieved from http://cvpcs.asu.edu/sites/default/files/content/products/Making_Strides_In_Maryvale_Final.pdf.

General Demographics

According to the 2010 Census, there are approximately 75,000 students in the target community to be served by Western Tech: CFA. According to the Children's Action Alliance, 78% of the district's children are Hispanic/Latino, 12% are non-Hispanic White, 5% are Black, and 4% are of other races, including Native American and Asian.[4]

Legislative District 29's demographics in terms of children living in poverty, children living with at least one foreign-born parent, and children living in households receiving a public benefit or assistance are significantly higher than those statewide, suggesting a high-need region (see Figure A.2.2). [5]

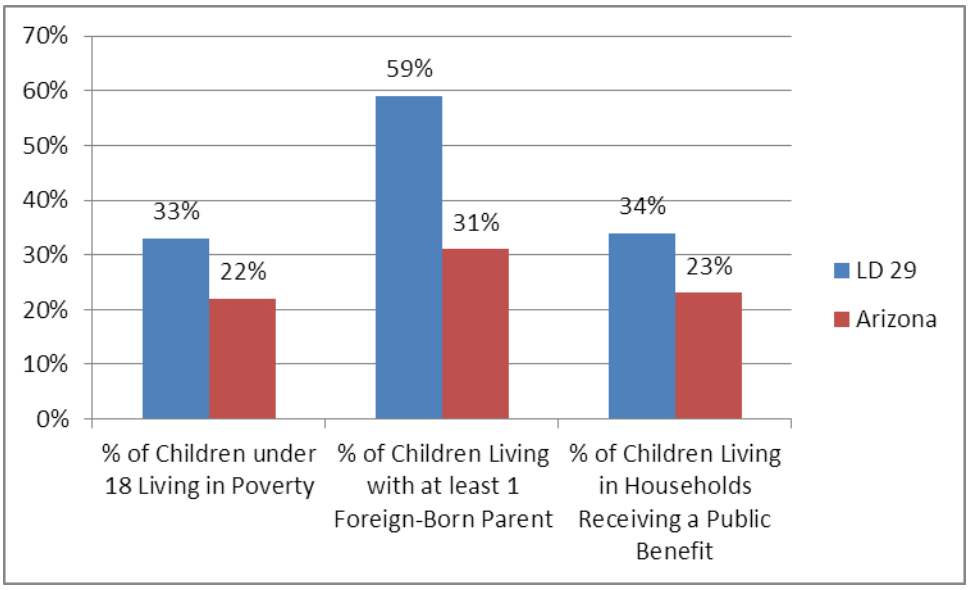

Figure A.2.2: Poverty Rates in LD 29 Compared to Arizona

Free and Reduced Lunch

Using the percentage of students qualifying for free and reduced lunch as an indicator of poverty, the data from each district reflects a high rate of poverty among the neighborhood's children.[6] All of these districts have free and reduced lunch percentages well over the state average of 47% (see Figure A.2.3).[7]

Alhambra	93%
Cartwright	93%
Isaac	90%

[4] Children's Action Alliance. (2012). How are the kids in your new legislative district doing? LD 29. Retrieved from http://www.azchildren.org/MyFiles/2012%20legislative%20district%20fact%20sheets/ld29.pdf
[5] Ibid.
[6] Arizona Department of Education. (2012, March). Percentage of free and reduced reports. Retrieved from http://www.azed.gov/health-nutrition/frpercentages/.
[7] Woodberry, J. (2011, July 28). Student need increases in West Valley schools. Retrieved from http://www.azcentral.com/community/peoria/articles/20110728west-valley-student-free-lunch-need.html.

Pendergast	70%
Phoenix Union (MHS & TBHS)	82%

Table A.2.3: Percent of Students Qualifying for Free or Reduced Lunch

Crime, Teen Pregnancy, and Drug Abuse

Compounding these high-need indicators is the neighborhood's high crime rate.[8]

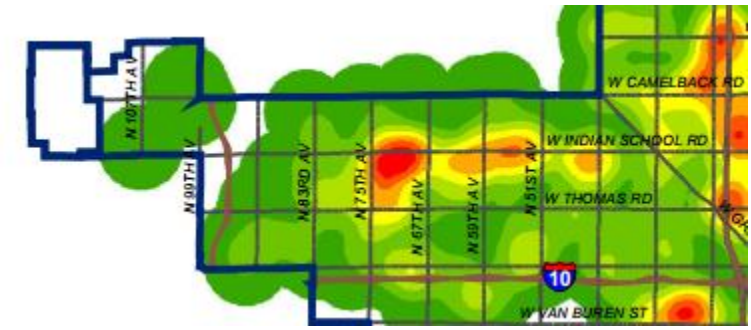

Figure A.2.4: Crime Hot Spot Map of Maryvale; yellow, orange, and red indicate high-crime areas

Significant data exists to demonstrate a dramatic public health need in the Maryvale community, specifically in the areas of teen pregnancy and drug abuse.

The "Making Strides in Maryvale" report states that the Cartwright Elementary School District, in the target community for Western Tech: CFA, was the highest elementary school district in number of teen births out of all Arizona elementary school districts; the Phoenix Union High School District, which also serves students from Maryvale, ranked #1 in 2004 in number of teen births in high school districts statewide.[9]

The implications of these statistics, from the same report, are staggering; less than half of teen mothers ever graduate from high school and children born to unwed teen moms are nine times more likely to grow up in poverty.

Drug abuse among Maryvale students is also reported to be higher than that of other Phoenix communities. The rate of teen drug use, including marijuana, cocaine, heroin, and methamphetamines, among Maryvale students, is roughly triple that of other Phoenix communities.[10]

The high rates of drug abuse among Maryvale's youth were cited in the "Making Strides in Maryvale" report as a major risk factor for the neighborhood.

---

[8] City of Phoenix Police Department. (2012, June). City of Phoenix Police Department Uniform Crime Reporting (UCR) Violent Crimes June 2012. Retrieved from http://phoenix.gov/webcms/groups/internet/@inter/@dept/@police/documents/web_content/085873.pdf.
[9] ASU CVPCS. (2006). Making strides in Maryvale. Retrieved from http://cvpcs.asu.edu/sites/default/files/content/products/Making_Strides_In_Maryvale_Final.pdf.
[10] Ibid.

Degree Attainment, English Language Learners, and Special Education Population

Legislative District 29's adults have troubling academic indicators. Only 9% of adults have an Associate's, Bachelor's, or Graduate degree, and 35% have not earned a high school diploma or GED.[11] These statistics suggest a strong need for a rigorous high school option, like Western Tech: CFA, dedicated to increasing students' prospects of college graduation and career success.

In addition to the struggles outlined above, students in the Maryvale neighborhood are confronted with high rates of special education and English language learner populations.[12]

District	English Language Learner (ELL) %	Special Education %
Cartwright	31%	10%
Alhambra	31%	10%
Phoenix Union High (whole district)	10%	12%
Isaac	33%	11%
Pendergast	13%	11%

Figure A.2.5: Maryvale English Language Learner and Special Education Populations

Considering all other factors and demographic data previously addressed, the high proportion of students with special and language needs compounds the educational needs of the community.

These factors – a high population of minority and low-income students in a high-crime area with many community challenges – generally correlate nationwide with low educational outcomes.[13] The statistics, facts, and realities are stacked against Maryvale's students. Western Tech: CFA proposes a robust educational program to address these needs.

Analysis of Surrounding Schools

The demographics of the Maryvale community suggest a veritable crisis in the higher education attainment of Maryvale's predominantly Latino residents. The Arizona State University Morrison Institute for Public Policy notes that Hispanic students are scoring 20 to 40 percentage points lower than their White and Asian peers on NAEP (National Assessment of Educational Progress) tests.[14]

The following academic statistics reveal the dire straits of Maryvale's secondary education outcomes, especially related to the STEM fields.

---

[11] Ibid.
[12] Retrieved from http://www.phxhs.k12.az.us/Page/106 and http://www.allthingsplc.info/evidence/cartwrightschooldistrictnumber83/index.php and Arizona Department of Education. (2012, October). Arizona October 1st enrollment figures. Retrieved from http://www.azed.gov/research-evaluation/2011-2012-enrollment/.
[13] Kent, A. (2009, July). Youth from low-income families. Retrieved from http://aspe.hhs.gov/hsp/09/vulnerableyouth/3/index.shtml.
[14] Welch, N. (2008, October). AZ workforce: Latinos, youth and the future. Retrieved from http://morrisoninstitute.asu.edu/publications-reports/AZWorkforce_LatinosYouthFuture.

High School Graduation Results

A prerequisite for higher education is secondary school graduation, another area in which Maryvale's schools struggle.[15]

The average high school graduation rate of Maryvale high schools is 75.9%. Comparing that to the average high school graduation rate of selected higher-socioeconomic status districts in the Phoenix Metropolitan Area (92.9%) reveals a significant discrepancy (see Figures A.2.6).

This data highlights Maryvale's need for a high school program like Western Tech: CFA, which stresses the importance of high school graduation and prepares students for college and career success.

James Sandoval Preparatory High School	75.8	Cave Creek Unified School District	95.6
La Puerta High School (Omega)	48.0	Chandler Unified School District	94.0
Maryvale High School	91.6	Fountain Hills Unified School District	90.3
Premier Charter	94.4	Scottsdale Unified School District	93.7
Trevor Browne High School	82.6	Tempe Union High School District	91.1
West Phoenix High School	62.9		
AVERAGE	75.9	AVERAGE	92.9

Figure A.2.6: Comparison Between Maryvale and Higher-Income High School Graduation Rates[16]

Academic Results[17]

	Math Proficiency	Math SGP	Reading Proficiency	Reading SGP	Science Proficiency	Grade
Desert Sands MS	46.5	49	66.5	52	46	C
Estrella MS	51	54	71	52	53	B
Pioneer Preparatory	57	63	79	62	78	B
Westland School	63.5	60	88	48	59	B

[15] Arizona Department of Education. (2012). 2011 Five year grade rate data. Retrieved from https://www.azed.gov/research-evaluation/graduation-rates/.

[16] The averages for Maryvale and higher-income high schools are unweighted. The above numbers reflect the 2011 Arizona Department of Education's Five-Year Graduation Rate.

[17] AIMS results in this section from Arizona Charter Schools Association. (2012). Education evaluator. Retrieved from https://azcharters.org/maps.

AVERAGE	54.5	56.5	76.1	53.5	59

Figure A.2.7: Selected Maryvale Middle School Academic Results[18]

The academic results of middle school students in Maryvale, provided by the Arizona Department of Education, suggest significant gaps exist in students' current proficiency, especially relating to science, technology, engineering, and mathematics (the STEM fields). Only 54.5% of Maryvale middle school students met or exceeded Arizona's mathematics standards as measured by the AIMS test (see Figure A.2.7), and only 59% met or exceeded Arizona's science standards as measured by the AIMS test (see Figure A.2.7). In addition, 76.1% of Maryvale middle school students met or exceed Arizona's reading standards as measured by the AIMS test (see Figure A.2.7).

	Math Proficiency	Math SGP	Reading Proficiency	Reading SGP	Science Proficiency	Grade
James Sandoval Prep HS	31	28	61	55	14	D
La Puerta HS (Omega)	14	N/A	38	N/A	0	D
Maryvale HS	39	51	65	49	35	C
Premier Charter	12	36	31	35	3	D
Trevor Browne HS	36	45	58	45	28	C
Westland School	50	60	75	48	51	B
AVERAGE	30.3	44.0	54.7	46.4	21.8	

Figure A.2.8: Maryvale High School Academic Results

The academic results of high school students in Maryvale, provided by the Arizona Department of Education, suggest that major gaps exist in students' proficiency in the STEM fields. On average, only 30.2% of Maryvale's students met or exceeded Arizona's mathematics standards as measured by the AIMS test (see Figure A.2.8). Closing these gaps is critical given the need for students who are highly-proficient in mathematics and the sciences.

In another measure of the local schools' instructional effectiveness, none of the high schools attained above-average student growth in mathematics (see Figure A.2.8). The students' median student growth percentile was 48, suggesting that more than half of Arizona students and classrooms grew, and learned, more than Maryvale students.

[18] These middle schools were chosen as they are within one mile of the proposed site of Western Tech: CFA.

It is important to note that Western Tech: CFA is a STEM school, not simply a mathematics school. In science, the other key tested STEM area, Maryvale's students also demonstrated low academic proficiency – only 23.4% passed the AIMS Science test (see Figure A.2.8).

This data suggests that a rigorous college-preparatory STEM academic program, such as that to be provided by Western Tech: CFA, is needed in order to improve the academic and economic prospects of Maryvale's students.

In addition, a major shift of the Common Core State Standards is the move toward a heavier focus on nonfiction and technical text – an asset for STEM-related fields. The Common Core State Standards also dictate a shift towards increasingly complex texts to better align with the demands of college and career.[19]

The current academic results of Maryvale's secondary students also show a lack of proficiency in students' language arts attainment levels. On average, only 53.4% of Maryvale high school students passed AIMS Reading (see Figure A.2.8). The data suggests that students are not being adequately prepared to succeed in college and career. Western Tech: CFA will ensure that literacy is embedded into its Academic Program in the content areas to avoid these gaps in achievement.

Advanced Placement Results

A key cornerstone of Western Tech: CFA's mission is the preparation for the academic rigors of college and career in order to succeed in the globalized technological economy. One way to prepare students for such rigors is through Advanced Placement (AP) courses; these courses form a major component of Western Tech: CFA's Academic Program.

Maryvale schools currently offer AP courses, but students' performance on AP tests suggests tremendous gaps in student achievement.

In Maryvale's two comprehensive public district high schools, Maryvale and Trevor G. Browne, only 23% and 41%, respectively, of the small number of students who take AP tests actually pass them. Consider those results against the results of one of the country's top STEM high schools, Thomas Jefferson High School for Science & Technology in Alexandria, Virginia, where all students take AP tests and 98% pass.[20]

	Participation Rate	Passing Rate	College Readiness Index
Maryvale	20%	23%	10.0
Trevor G. Browne	11%	41%	6.9
Thomas Jefferson	100%	98%	100.0

[19] Common Core State Standards Initiative. (2012). Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, & Technical Subjects Appendix A. Retrieved from http://www.corestandards.org/assets/Appendix_A.pdf.
[20] US News & World Report. (2012). America's best high schools. Retrieved from http://www.usnews.com/education/best-high-schools.

Figure A.2.9: AP Test Participation and Passing Rates[21]

Western Tech: CFA will surpass the current performance of Maryvale's secondary schools, by achieving the stellar results of a school like Thomas Jefferson, which is a national benchmark for academic success. Even though the schools may be different in terms of population, Thomas Jefferson provides a proof point of the successful outcomes that a STEM curriculum can facilitate.

Summary

It is the vision of Western Tech: CFA to be the first A high school in Maryvale, representing its success as a proof point that low income schools and students can succeed, despite current academic outcomes in the neighborhood.

B. Meeting the Needs of the Target Population

Western Tech: CFA proposes to provide a quality secondary education to students in the target community. The school model, grounded in research and best practices, aims to address the educational and community challenges of the Maryvale neighborhood. Detailed further in section A.3, key aspects of the school model have proven successful in similar neighborhoods nationwide and in Arizona; research and experiential data to further support how Western Tech: CFA's program will meet the needs of the Maryvale neighborhood, including improving pupil achievement, is detailed below.

Need for Academic Excellence

The academic statistics above – low student achievement outcomes across literacy and the STEM fields, coupled with low graduation rates – certainly demonstrate the incredible need for an excellent academic program that leads to increased pupil achievement.

Western Tech: CFA proposes to do just that. Through extensive research, school observation, and experience working with similar populations, the founding team has identified the following best practices that will increase the pupil achievement in the Maryvale neighborhood.

Core Knowledge[22]

Western Tech: CFA proposes an excellent and rigorous curriculum based in the Core Knowledge Sequence and Common Core State Standards, as adopted by the state of Arizona. The Core Knowledge curriculum, to be the bedrock of the program of instruction for grades 7 and 8, narrows the achievement gap, exhibited through academic performance and as typically demonstrated by students from various cultural and socioeconomic backgrounds. According to the Core Knowledge Foundation the primary goal

[21] The participation rate above refers to the percentage of students who took at least one AP test; the passing rate refers to the percentage of those tests that were passed with a satisfactory score. The College Readiness Index was a metric developed by *US News & World Report* to quantify a school's ability to prepare its students for college.

[22] Adapted from Hirsch Academy: CFA charter application. Approved by the Arizona State Board for Charter Schools January 14, 2013.

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, including increases in pupil achievement, the program provides for low-income learners such as those in the Maryvale neighborhood:

> 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. [23]

Data-Driven Instruction[24]

The instructional program of Western Tech: CFA will include an assessment framework adapted from Paul Bambrick-Santoyo's book *Driven by Data*, to be elaborated further in A.3. The keys to the assessment framework are rigorous, aligned assessment, collaborative analysis of the data, action and instructional adjustment based upon the data, and support and accountability from school leadership to enable the effectiveness of the system.
Previous schools in similar urban, low-income communities have experienced phenomenal increases in pupil achievement through the usage of such assessment systems. For instance, North Star Academy has risen to become the highest-performing urban school in New Jersey utilizing similar systems.

Continuous Job-Embedded Professional Growth

Western Tech: CFA believes that the teacher in front of the classroom, or behind the computer monitor, is one of the most important factors that influences student achievement. To that end, Western Tech: CFA will aim not only to recruit national teaching leaders for the school staff, but also commit to continuously develop and grow its existing staff.

Professional growth will take place within the context of Professional Learning Communities (PLCs). PLCs have a clear research basis as a best practice. Leading researchers (including Fullan, Schmoker, and Marzano) advocate for the implementation of PLCs as effective structures for academic programs, as do leading educational organizations (including the CCSSO and NEA). The National Teaching Standards and Standards for Professional Learning also incorporate PLCs into their standards.[25]

PLCs will be responsible for co-observation and debrief cycles, action research, and professional development sessions. PLCs will be supported and guided by school leadership in these tasks. These

[23] Core Knowledge Foundation. (2012). Core Knowledge. Retrieved from www.coreknowledge.org.
[24] Bambrick-Santoyo, P. (2010). Driven by data: a practical guide to improve instruction. San Francisco, CA: Jossey-Bass.
[25] Laczko-Kerr, I. (2012). Creating systems to support student learning. Retrieved from http://www.anymeeting.com/WebConference-beta/RecordingDefault.aspx?c_psrid=EB58D789884A.

systems will continuously grow Western Tech: CFA's teachers, leading to continuous improvements in pupil achievement.

In addition, continuous coaching, feedback, and instructional adjustment will be central to the instructional program of Western Tech: CFA. This will also continuously improve the effectiveness of Western Tech: CFA's educators.

Instructional Best Practices

The academic program of Western Tech: CFA depends on effective teachers utilizing proven instructional best practices, including objective-driven instruction, cooperative learning structures, high-yield instructional strategies, Socratic seminars, flipped classrooms, and differentiation strategies.

Scholarship by noted education researchers, including Carol Ann Tomlinson[26], Spencer Kagan[27], and Robert Marzano[28] has indicated that such instructional best practices can lead to significant increases in student learning, including among underprivileged student populations, such as those in the Maryvale neighborhood.

Problem-Based Learning

Science and enrichment courses will implement problem-based learning. Problem-based learning incorporates students solving real-world "problems" in their studies. Problem-based learning is used in several Arizona STEM-model schools and has been shown to increase student motivation, which in turn has been proven to lead to improved pupil achievement.[29]

Need for Individualized Education and Support

The target community of Western Tech: CFA, as demonstrated by the statistics above, includes students with varied learning needs – including underachieving students, special education students, and English Language Learners. The academic program of Western Tech: CFA will address the individual education needs of all of these students.

Hybrid Learning[30]

Hybrid learning, also called blended learning, is the combination of traditional in-classroom and online learning that leverages technology to control some element of the time, place, path, or place of student learning. Hybrid learning allows teachers to completely individualize student learning paths while

---

[26] 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.
[27] Kagan, S. (2008, Summer). Kagan structures simply put. Retrieved from http://www.kaganonline.com/free_articles/dr_spencer_kagan/ASK38.php.
[28] Marzano, R., D. Pickering, and J. Pollock. (2004). Classroom instruction that works. Pearson: New York.
[29] De Gallow. What is problem-based learning? Retrieved from http://www.pbl.uci.edu/whatispbl.html.
[30] National Charter School Resource Center. (2012, September 12). Blended learning in charter schools. Retrieved from http://www.charterschoolcenter.org/webinars.

continuously monitoring student performance. Western Tech: CFA will implement hybrid learning as a key cornerstone of its academic program.

Other charter schools in similar demographics that utilize hybrid learning, including Carpe Diem in Yuma, Arizona, Rocketship in San Jose, California, and KIPP Empower Academy in Los Angeles, California, have become some of the top schools in the country utilizing this model.

Specifically, Western Tech: CFA, like all TeamCFA schools, will use the CompassLearning Odyssey program as a cornerstone of its individualized approach to student learning. CompassLearning Odyssey has been proven to significantly increase student achievement results in low-income communities. Schools in Cliffside, North Carolina – where two-thirds of students are considered economically disadvantaged – have increased student achievement results in math by 30 points by using the CompassLearning Odyssey program.[31]

Similarly, Pioneer Preparatory School: A Challenge Foundation Academy (Pioneer Prep: CFA), a TeamCFA elementary school in the Maryvale neighborhood, grew from a D to B in the state's A-F Accountability system by the intentional usage of CompassLearning Odyssey.

Special Education

According to the statistics above, the school districts in the Maryvale neighborhood have significant populations of students receiving special education services. To accommodate their needs, Western Tech: CFA will hire highly-qualified and certified special educators and train all students in best practices regarding the education of students receiving special education services.

In addition, the Response to Intervention (RTI) model – a crucial component of the academic program – will facilitate easy identification of students needing special education services.

English Language Learners

Similarly, Western Tech: CFA anticipates a high number of English Language Learners (ELLs) according to the demographics of the Maryvale neighborhood presented above. To accommodate the academic needs of these learners, Western Tech: CFA will ensure that all staff are SEI certified and receive continuous training on how to best serve the needs of ELLs.

Need for College and Career Preparation

The adult educational outcomes in the Maryvale community suggest a need for a college- and career-preparatory educational program. It is widely noted that a college degree is key to both increased long-term career prospects and lifetime earning potential.

[31] CompassLearning. (2011). Equity for disadvantaged students in rural North Carolina. Retrieved from http://www.compasslearning.com/files/success_stories_24.pdf.

Western Tech: CFA proposes a college- and career-preparatory educational program to address this community need, and also fulfill its mission of linking Maryvale students with opportunities for advancement in the new, global, technological economy.

STEM and Internships

As mentioned previously in section A.1, the global, national, and Arizona economies are all moving towards a greater focus on STEM jobs. Western Tech: CFA will focus on the STEM fields by providing innovative coursework and collaborate with STEM professionals when creating curriculum. This focus on STEM education will better prepare Western Tech: CFA's Maryvale students for higher education in the STEM careers, leading to further economic opportunities in those fields.

In addition, to prepare Western Tech: CFA students for the STEM opportunities in the technological economy, 11th grade students will be required to complete internships for credit with STEM employers.

College Counseling and Support

Western Tech: CFA believes that all students can and should apply, matriculate, and graduate from college programs. To that end, Western Tech: CFA will provide Advanced Placement (AP) courses as a cornerstone of its curriculum. AP courses can in many cases lead to college credit. In addition, Western Tech: CFA will employ highly-qualified college counselors to assist not only in the college search and application process, but to assist low-income Maryvale students with college funding options and to serve as a liaison with students already matriculated in college programs to support alums and encourage habits for college graduation.

Need for Community Partnerships and Support

Section A.1 details Western Tech: CFA's beliefs that strong and inextricable links between school and community must exist. This is even more important in the Maryvale neighborhood, especially considering the community challenges relating to drug usage and teenage pregnancy noted above. Western Tech: CFA has already pursued relationships with community organizations. Such community organizations include the Maryvale Adolescent Providers Partnerships (MAPPs), which is a mission-aligned group of like-minded organizations serving Maryvale youth through service projects and leadership development programs; the YMCA, which provides resources and programming for at-risk students, in addition to arts and athletics enrichment options; Stand for Children Stand UP program, which is a program designed to engage and empower parents to be advocates for their children's learning; and the Boys & Girls Club TOP program, which provides leadership development opportunities for teens. Research suggests that student and parent participation in these programs can lead to increased pupil achievement outcomes, increased graduation rates, and decreased risky behaviors that can lead to teenage crime, drug usage, and pregnancy.[32] [33]

[32] Afterschool Alliance. (2011). Afterschool programs: making a difference in America's communities by improving academic achievement, keeping kids safe and helping working families. Retrieved from http://www.afterschoolalliance.org/documents/2012/Outcomes_4_20_12_FINAL.pdf.

C. Class Size and Student-Teacher Ratio

Western Tech: CFA will provide a student-teacher ratio of 25:1 in Year 1, 23:1 in Year 2, and 22: 1 in Year 3. It is also the intent of Western Tech: CFA to provide class sizes of approximately 25 students.

Such smaller class sizes will allow Western Tech: CFA to provide a more individualized approach to education, which has been proven to improve pupil achievement. For example, in an urban New York City public high school study from 2005, students 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, the graduation rate for free-lunch students more than doubled, and their likelihood of graduating equaled those who were not economically disadvantaged.[34]

---

[33] ASU CVPCS. (2006). Making strides in Maryvale. Retrieved from http://cvpcs.asu.edu/sites/default/files/content/products/Making_Strides_In_Maryvale_Final.pdf.

[34] Class Size Matters. (2012). Class size matters. Retrieved from http://www.classsizematters.org/.