

## African American and Hispanic Student Disproportionate Impact and Effective Strategies

Prepared by Diana Pineda

### **Purpose of Brief**

The purpose of this brief is to identify disproportionate impact among African American and Hispanic students, and to identify effective strategies with African American and Hispanic students from past research conducted at Crafton.

### **Disproportionate Impact among Hispanic and African American Students**

- English and math throughput rates
- Degree/certificate completion rates
- Transfer rates
- Transfer readiness rates

### **Effective Strategies among Hispanic and African American Students**

- Tutoring Center
- Left Lane Program
- Supplemental Instruction
- Learning Communities
- Educational Planning and Counseling
- Extracurricular Activities for STEM Trek and STEM Academy Students
- Access to Undergraduate Research Opportunities
- Student Success and Counseling Services
- Study skills courses

### **Introduction**

The Crafton Hills College (CHC) Counseling Department is exploring implementing a Puente and/or Tumaini Program. The Puente Program is a successful statewide counseling, mentoring and writing program for community college students and is in operation in over 35 community college in California. Tumaini is Swahili for hope. Tumaini programs include counselors and instructors who use collaborative and other community building strategies to enhance students' learning potential in and out of the classroom.

To inform the decision about whether to implement a Puente and/or Tumaini Program at Crafton, the Counseling Department asked the CHC Office of Institutional Effectiveness, Research, and Planning (OIERP) to examine disproportionate impact among Hispanic and African American students at Crafton. In addition, the OIERP also identified strategies that have been found to have a positive relationship with academic success among Hispanic and African American students.

### **Disproportionate Impact**

According to the Fall 2016 Semester CHC Credit Enrollment Data (Wurtz, 2016) African American and Hispanic students comprise more than half of the student population (54%). This is particularly important because the 2014 Student Equity Data (Wurtz & Gamboa, 2014) identified African American and Hispanic students as being more likely to be disproportionately impacted in the following areas:

- English and math throughput rates
- degree/certificate completion rates
- transfer rates

Additionally, Wurtz (2015a) found that African American students were statistically significantly ( $p = .023$ ) and substantially ( $ES = .25$ ) less likely to be transfer ready (6%) than students in a three-year transfer cohort (15%).

### **Effective Strategies among Hispanic and African American Students**

In order to offer support to these two groups of students, a Puente Program and Tumaini Program have been presented as possibilities for specific support strategies. In exploring these programs as viable strategies to address

disproportionate impact, comparable established student programs at CHC were reviewed.

### **Tutoring Center**

Wurtz (2015b) found that the Tutoring Center (TC) is most effective with male, Hispanic, and African American students.

- Hispanic and African American students who utilized the TC were statistically significantly and substantially more likely to complete their course than Hispanic and African American students who did not access the TC.

Examining the relationship between Tutoring Center utilization and English course success and completion for Fall 2013 to Spring 2015 (Wurtz, 2015c) it was found that:

- African American and Hispanic students who accessed the TC were both statistically significantly and substantially more likely to not only complete their English course, but successfully complete the course when compared to African American and Hispanic students who did not access the TC.

### **Left Lane Program**

The Left Lane Program (LLP) was also amongst the programs already at CHC in which success with the target groups was indicated by previous research.

- African American and Hispanic Left Lane students were substantially and statistically significantly more likely to successfully complete their Fall 2012 courses than non-Left Lane students who were African American and Hispanic (Wurtz, 2013).

### **Supplemental Instruction**

Guadiana (2013b) analyzed the Spring 2013 course success and completion rates of 105 Transfer Prep students who participated in the Supplemental Instruction (SI) program offered in conjunction with Crafton courses. The results indicated the following:

- Hispanic students who attended two or more SI sessions were statistically significantly and substantially more likely to successfully complete their courses and have higher course success rates than Hispanic students who did not attend SI.
- African American students who attended two or more SI sessions were substantially ( $ES=.37$ ) more likely to complete their courses (100%) than African American students in the same section who did not attend SI (90%) (Guadiana, 2013b).

Similarly, when analyzing the relationship of Supplemental Instruction to course success for students in the HSI STEM SI Program in Fall 2012 (Guadiana, 2013a):

- Hispanic and African American students who attended two or more SI sessions had a substantially higher course success rate than Hispanic and African American students who did not attend any SI sessions.

More recently, Gamboa (2014b) also analyzed the relationship of SI to course success for students in the HSI Title III STEM SI program for the Fall 2013 and Spring 2014 terms, results further indicated the following:

- Hispanic and African American students had a substantially higher course success rate than Hispanic and African American students in the same section who did not attend any SI sessions.

### **Learning Communities**

Gamboa (2013) illustrated the relationship of HSI STEM grant learning communities(LC) with course completion and success in Spring 2013. The learning community (LC) program was developed as an alternative learning strategy in which courses or coursework are linked together so students find greater coherence in what they are learning and greater interaction with faculty and peers. The results indicated that

- Hispanic and African American students in a STEM LC course were slightly more likely to successfully complete the course than students in a stand-alone course.

When examining the relationship of HSI STEM grant learning communities with course completion, course success, and term-to-term persistence (i.e. retention) in Fall 2013 and Spring 2014 (Gamboa, 2014a), the results indicated that:

- African American and Hispanic students in STEM LC courses were more likely to successfully complete the course than African American and Hispanic students in stand-alone courses.
- African American students in STEM LC courses were substantially ( $ES=.23$ ) more likely to persist from Fall 2013 to Spring 2014 (85%) than African American students in stand-alone courses (75%).
- Hispanic students were also more likely to persist from Fall 2013 to Spring 2014 (86%) than Hispanic students in a stand-alone course (81%).
- African American and Hispanic students were more likely to successfully complete the course than their corresponding classmates in a stand-alone course.

### **Educational Planning and Counseling, Extracurricular Activities for STEM Trek and STEM Academy Students, and Access to Undergraduate Research Opportunities**

Gamboa (2015) analyzed the relationship of student success and Title III HIS STEM grant services from 2011-2012 through 2014-2015, in which in addition to SI and LC's the grant provided other non-instructional support services including education planning and counseling, extracurricular activities for STEM Trek and STEM Academy students, and access to undergraduate research opportunities. Offering the most recent and overall encompassing analyses, it was found that in 2014-2015:

- African American students who received services offered by the Title III HIS STEM Grant were statistically significantly ( $p=.03$ ) more likely to successfully complete their course (77%) than African American students in the same section who did not receive services offered by the grant (69%).
- Hispanic students who received services offered by the Title III HIS STEM Grant were statistically significantly ( $p<.001$ ) more likely to successfully complete their course (76%) than Hispanic students in the same section who did not receive services offered by the grant (70%).

### **Student Success and Counseling Services**

When examining the relationship of student success and counseling services provided by the CHC HSI STEM grant in Fall 2013 and Spring 2014 (Gamboa, 2014c), results also illustrated the following:

- Hispanic and African American students who participated in STEM programs and received STEM counseling services were more likely to successfully complete their courses and persist from Fall 2013 to Spring 2014, when compared to Hispanic and African American students who did not receive STEM counseling services.

### **Study Skills Courses (e.g., CHC-090, CHC-099 and CHC-100)**

Lastly, Wurtz (2015d) illustrated the results of the relationship between students who successfully completed CHC study skills courses with those in the same section who did not successfully complete CHC study skills courses in developmental math, English, and reading courses.

- Hispanic and African American students who successfully completed CHC-090 (College Skills and Strategies) were both statistically significantly and substantially more likely to successfully complete developmental courses than Hispanic and African American students who did not successfully complete CHC-090.
- Hispanic and African American students who successfully completed CHC-099 (Learning Communities Seminar) were both statistically significantly and substantially more likely to successfully complete developmental courses than Hispanic and African American students who did not successfully complete CHC-099.
- African American students who successfully completed CHC-100 (Student Success and the College Experience) were substantially ( $ES = .49$ ) more likely to successfully complete developmental courses than African American students who did not successfully complete CHC-100.
- Hispanic students were also found to be more likely to successfully complete developmental courses when successfully completing CHC-100, compared to Hispanic students who did not successfully complete CHC-100.

### **Conclusion**

As the aforementioned review indicates African American and Hispanic students are disproportionately impacted in the following areas: English and math throughput rates, degree/certificate completion rates, transfer rates, and transfer readiness rates. In order to help with these specific areas of need for these two groups of students, the possibility of starting a Puente Program and/or a Tumaini Program at Crafton Hills College has been suggested. The research presented above for similar student programs established on campus, consistently suggests a correlation in student's participation in these programs, and not only in course completion, but successful completion of the course and persistence (i.e. retention). These results may suggest similar success for African American and Hispanic students, if a Puente Program and/or Tumaini Program were to be started at CHC.

## References

- Gamboa, B. (2013). *Completion and success rates for Spring 2013 HIS STEM Learning Community courses* (RRN 665). Retrieved from Crafton Hills College, Office of Institutional Effectiveness, Research & Planning website: [http://www.craftonhills.edu/~media/Files/SBCCD/CHC/About%20CHC/Research%20and%20Planning/Research%20Briefs/Academic%20Success%20Studies/1314\\_LC\\_STEM\\_SPI3.pdf](http://www.craftonhills.edu/~media/Files/SBCCD/CHC/About%20CHC/Research%20and%20Planning/Research%20Briefs/Academic%20Success%20Studies/1314_LC_STEM_SPI3.pdf)
- Gamboa, B. (2014a). *Completion and success rates for academic year 2013-2014 HIS STEM Learning Community courses* (RRN 891). Retrieved from Crafton Hills College, Office of Institutional Effectiveness, Research & Planning website: <http://www.craftonhills.edu/~Media/Files/SBCCD/CHC/About%20CHC/Research%20and%20Planning/Research%20Briefs/Academic%20Success%20Studies/RRN%20891%20STEM%20LC%20Performance%201314.pdf>
- Gamboa, B. (2014b). *Relationship of Supplemental Instruction (SI) to course success for students in the HSI Title III STEM SI program for the Fall 2013 and Spring 2014 terms* (RRN 848). Retrieved from Crafton Hills College, Office of Institutional Effectiveness, Research & Planning website: [http://www.craftonhills.edu/~Media/Files/SBCCD/CHC/About%20CHC/Research%20and%20Planning/Research%20Briefs/Academic%20Success%20Studies/RRN%20848%20SI%20Performance%20FA13\\_SPI4.pdf](http://www.craftonhills.edu/~Media/Files/SBCCD/CHC/About%20CHC/Research%20and%20Planning/Research%20Briefs/Academic%20Success%20Studies/RRN%20848%20SI%20Performance%20FA13_SPI4.pdf)
- Gamboa, B. (2014c). *Relationship of student success and counseling services provided by the CHC HSI STEM grant in 2013-2014* (RRN 952). Retrieved from Crafton Hills College, Office of Institutional Effectiveness, Research & Planning website: <http://www.craftonhills.edu/~media/Files/SBCCD/CHC/About%20CHC/Research%20and%20Planning/Research%20Briefs/Academic%20Success%20Studies/RRN%20952%20STEM%20Counseling%20Impact%202013-14.pdf>
- Gamboa, B. (2015). *Relationship of student success and Title III HIS STEM grant services: 2011-2012 through 2014-2015* (RRN 1,109). Retrieved from Crafton Hills College, Office of Institutional Effectiveness, Research & Planning website: <http://www.craftonhills.edu/~Media/Files/SBCCD/CHC/About%20CHC/Research%20and%20Planning/Research%20Briefs/Academic%20Success%20Studies/RRN%201109%20STEM%20Services%20Impact%2011-12%20to%2014-15.pdf>
- Guadiana, L. (2013a). *Relationship of Supplemental Instruction (SI) to course success for students in the HIS STEM SI program* (RRN 645). Retrieved from Crafton Hills College, Office of Institutional Effectiveness, Research & Planning website: [https://www.craftonhills.edu/~media/Files/SBCCD/CHC/About%20CHC/Research%20and%20Planning/Research%20Briefs/Academic%20Success%20Studies/RRN%20645\\_FA12\\_STEMSI\\_Success\\_DISAGGREGATED.pdf](https://www.craftonhills.edu/~media/Files/SBCCD/CHC/About%20CHC/Research%20and%20Planning/Research%20Briefs/Academic%20Success%20Studies/RRN%20645_FA12_STEMSI_Success_DISAGGREGATED.pdf)
- Guadiana, L. (2013b). *Spring 2013 success and completion rates of Transfer Prep students in the Supplemental Instruction(SI) program* (RRN 701). Retrieved from Crafton Hills College, Office of Institutional Effectiveness, Research & Planning website: [http://www.craftonhills.edu/~Media/Files/SBCCD/CHC/About%20CHC/Research%20and%20Planning/Research%20Briefs/Academic%20Success%20Studies/RRN%20701\\_SP2013\\_SI\\_TransferPrep\\_FINAL.pdf](http://www.craftonhills.edu/~Media/Files/SBCCD/CHC/About%20CHC/Research%20and%20Planning/Research%20Briefs/Academic%20Success%20Studies/RRN%20701_SP2013_SI_TransferPrep_FINAL.pdf)
- Wurtz, K. (2013). *Relationship of the Fall 2012 Left Lane cohort to enrollments, student success and Fall to Spring retention* (RRN 663). Retrieved from Crafton Hills College, Office of Institutional Effectiveness, Research & Planning website: [http://www.craftonhills.edu/~media/Files/SBCCD/CHC/About%20CHC/Research%20and%20Planning/Research%20Briefs/Academic%20Success%20Studies/2012FA\\_LeftLane\\_Success3.pdf](http://www.craftonhills.edu/~media/Files/SBCCD/CHC/About%20CHC/Research%20and%20Planning/Research%20Briefs/Academic%20Success%20Studies/2012FA_LeftLane_Success3.pdf)

Wurtz, K. (2015a). *Progress on Crafton's QEI's 2015-2016 report showing progress from 2012-2013 to 2014-2015* (RRN 1,172). Retrieved from Crafton Hills College, Office of Institutional Effectiveness, Research & Planning website: [http://www.craftonhills.edu/~media/Files/SBCCD/CHC/About%20CHC/Research%20and%20Planning/Research%20Reports/QEI\\_2015-16\\_Update.pdf](http://www.craftonhills.edu/~media/Files/SBCCD/CHC/About%20CHC/Research%20and%20Planning/Research%20Reports/QEI_2015-16_Update.pdf)

Wurtz, K. (2015b). *Relationship between Tutoring Center utilization and course success and completion* (RRN 1,129). Retrieved from Crafton Hills College, Office of Institutional Effectiveness, Research & Planning website: [http://www.craftonhills.edu/~media/Files/SBCCD/CHC/About%20CHC/Research%20and%20Planning/Research%20Briefs/Academic%20Success%20Studies/1516\\_TC\\_Brief\\_FA13toSP15.pdf](http://www.craftonhills.edu/~media/Files/SBCCD/CHC/About%20CHC/Research%20and%20Planning/Research%20Briefs/Academic%20Success%20Studies/1516_TC_Brief_FA13toSP15.pdf)

Wurtz, K. (2015c). *Relationship between Tutoring Center utilization and English course success and completion* (RRN 1,067). Retrieved from Crafton Hills College, Office of Institutional Effectiveness, Research & Planning website: [https://www.craftonhills.edu/~media/Files/SBCCD/CHC/About%20CHC/Research%20and%20Planning/Research%20Briefs/Academic%20Success%20Studies/1516\\_TC\\_Engl\\_Brief\\_FA13toSP15.pdf](https://www.craftonhills.edu/~media/Files/SBCCD/CHC/About%20CHC/Research%20and%20Planning/Research%20Briefs/Academic%20Success%20Studies/1516_TC_Engl_Brief_FA13toSP15.pdf)

Wurtz, K. (2015d). *Relationship between CHC study skills courses and basic skills course success* (RRN 1,040). Retrieved from Crafton Hills College, Office of Institutional Effectiveness, Research & Planning website: [http://www.craftonhills.edu/~Media/Files/SBCCD/CHC/About%20CHC/Research%20and%20Planning/Research%20Briefs/Academic%20Success%20Studies/1415\\_CHCandBasicSkillsCourses\\_Brief.pdf](http://www.craftonhills.edu/~Media/Files/SBCCD/CHC/About%20CHC/Research%20and%20Planning/Research%20Briefs/Academic%20Success%20Studies/1415_CHCandBasicSkillsCourses_Brief.pdf)

Wurtz, K. (2016). *Fall 2016 semester CHC credit enrollment data*. Retrieved from Crafton Hills College, Office of Institutional Effectiveness, Research & Planning website: [https://www.craftonhills.edu/~media/Files/SBCCD/CHC/About%20CHC/Research%20and%20Planning/Snapshot\\_Fall2015.pdf](https://www.craftonhills.edu/~media/Files/SBCCD/CHC/About%20CHC/Research%20and%20Planning/Snapshot_Fall2015.pdf)

Wurtz, K. & Gamboa, B. (2014). *2014 Student equity data* (Version 2: RRN 899). Retrieved from Crafton Hills College, Office of Institutional Effectiveness, Research & Planning website: [http://www.craftonhills.edu/~media/Files/SBCCD/CHC/About%20CHC/Research%20and%20Planning/Research%20Reports/2014\\_StudentEquitaData3.pdf](http://www.craftonhills.edu/~media/Files/SBCCD/CHC/About%20CHC/Research%20and%20Planning/Research%20Reports/2014_StudentEquitaData3.pdf)