Introduction
The New College Undergraduate Inquiry and Research Experiences (NCUIRE) program facilitates research partnerships between faculty and undergraduates at ASU West. Students work with faculty mentors for a semester or one academic year on original research projects. Many participants receive awards while in NCUIRE but some students prefer academic credits instead.

Participation in formalized undergraduate research experiences often enhances academic performance and retention (Lewis and Gregerman, 2008; Kah, 2008). Retention increases because undergraduate research programs: 1) set high standards of student effort; 2) augment skills and academic discipline.

Student Persistence was tracked through three indicators: One Year Retention address the continued enrollment at ASU in an annual increment (full or part time status); Four Year and Five Year Graduation Rates deals with the completion of bachelors degrees for incoming freshman students for different time intervals.

Academic Background: The Colorado Index Score (CIS) is a composite scale that is often used in admissions decisions for high school graduates who are applying to college. The scale encompasses factors such as High School GPA, Standardized test scores (SAT or ACT), academic rigor of completed high school classes, and extracurricular activities.

Table 1: Student Retention by NCUIRE Participation and Color Index for College Preparation

<table>
<thead>
<tr>
<th>Year Retention</th>
<th>One-Year Retention (2007-2015)</th>
<th>No NCUIRE</th>
<th>NCUIRE</th>
<th>No NCUIRE</th>
<th>NCUIRE</th>
<th>No NCUIRE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>88%</td>
<td>69%</td>
<td>60%</td>
<td>27%</td>
<td>60%</td>
<td>36%</td>
</tr>
<tr>
<td>Medium Low (93 or Less)</td>
<td>100%</td>
<td>76%</td>
<td>76%</td>
<td>76%</td>
<td>76%</td>
<td>51%</td>
</tr>
<tr>
<td>Medium High (111 to 120)</td>
<td>100%</td>
<td>91%</td>
<td>59%</td>
<td>51%</td>
<td>50%</td>
<td>69%</td>
</tr>
<tr>
<td>High (121 or more)</td>
<td>98%</td>
<td>92%</td>
<td>85%</td>
<td>65%</td>
<td>95%</td>
<td>78%</td>
</tr>
</tbody>
</table>

Results
NCUIRE benefits students regardless of their pre-collegiate academic experiences. For students in the same CIS clusters, NCUIRE retention rates were always higher. For example, the one year retention rate is almost perfect for NCUIRE students with low or medium low CIS scores but the retention rate of non NCUIRE students with equivalent CIS scores ranged from 65% to 85%.

For NCUIRE also had it biggest impact among students who did not excel in high school. Four year graduation rates were over 35% higher for NCUIRE students who came in lower CIS scores and the gap is even larger for five year graduation rates. Remarkably the NCUIRE students who came in with low CIS scores graduated in four years at pace that almost matched the non NCUIRE students who came in with the highest CIS (60% compared to 65%).

Conclusion
Undergraduate research opportunities improves retention for all college students. Overall retention rates is dramatically higher among student who partake in the NCUIRE program at ASU West. Moreover, students from all academic backgrounds benefitted from undergraduate research opportunities (similar in Salinitri, 2005; Locks and Gregerman, 2008). In fact, NCUIRE students who entered with lower CIS scores as freshman had almost the same graduation rates as non NCUIRE students who came in with the highest CIS scores. This suggests that NCUIRE administrators and educational planners elsewhere should make voluntary research opportunities as available as possible to students from all circumstances.

References