

# **American River College Beacon Program: An Environment Where Students Learn to Learn**

Summary Report for 13 Semesters: 1993-2002

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## **Abstract**

The Beacon program at American River College over the past nine years has dramatically raised student success rates. Consider that for 62 different courses across 22 disciplines, Beacon students had an overall success rate of 83.5% (n=2,610) compared with a success rate of 60.0% for non-Beacon students within the same courses and with the same instructors (n=7,817). Furthermore, when student success is evaluated by known high-risk demographic variables such as age group, ethnicity, low income, and first-time freshmen, Beacon students significantly outperform the non-Beacon students.

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## **Background and Development of the Beacon Program**

The Beacon program at American River College (ARC) began in 1992 with a 2-year grant funded by the ACCJC/Kellogg Foundation for a Peer Assisted Learning Program in selected math and science courses. Interest for this project initially emerged from math and science faculty concerned with disproportionately lower success rates for minority groups in their disciplines. Much of the early inspiration the Beacon program came from the work of Dr. Uri Treisman at UC Berkeley who had implemented collaborative peer study groups to improve minority success in math courses.

Borrowing from this concept, the ARC faculty created their own version of collaborative peer learning in which small study groups were created specifically for designated Beacon courses in math, chemistry and biology. Each study group was coordinated by a Student Learning Assistant who functioned as an interface between the instructor and students participating in the study group. The Learning Assistant was a student who had successfully completed the same course in a prior semester and had been recruited by the instructor who would be teaching the Beacon class. All the Learning Assistants received training in “small group peer assisted learning dynamics” from the Beacon coordinators prior to the start of the semester and were expected to have some weekly contact time with the instructor. For their participation, the Learning Assistants received \$5.00 an hour.

The availability of the Beacon program along with its features and benefits for the students was announced in each of the Beacon courses early in the semester, and participation in the group was on a voluntary basis. The study groups were initially scheduled to meet for 3 hours a week outside of the classroom time. Additionally, the Learning Assistants would provide discussions in the study groups about other related study skills that would help students learn the material and prepare for tests. The Beacon project was first implemented in math, chemistry and biology with 24 Learning Assistants. In 2001, the Beacon program was formally institutionalized at ARC with 0.5 FTE allocated for the Program Director through Partnership for Excellence funding.

## **How Successful are Beacon Students?**

Since the inception of the Beacon program, the benefits to participating students have been remarkable. In 62 different courses over 13 semesters across 22 disciplines Beacon students have an overall success rate of 83.5% (n=2,610) compared with a success rate of 60.0% for the non-Beacon students (n=7,817). Success rate refers to the percentage of students who have achieved a passing grade (“A”, “B”, “C”, “CR”) grade notation. As only about 25% of students evaluated to date elected to participate in the Beacon program across all Beacon courses evaluated, the non-participating students in each Beacon course have served as a control group (non-Beacon students) against to which to evaluate the effects of the program.

Another benchmark against which to compare the high success rates of Beacon students is that the overall success rate for all students at ARC over the past 10 years ranged from 66% to 68% compared to 83.5% for Beacon. Furthermore, when the academic performance of Beacon students is compared with other instructors not offering Beacon for the same course, the Beacon students' performance is also found to be superior. Of particular interest is the finding that students associated with high-risk characteristics across demographics such as low income, ethnicity, and first-time freshmen show an amazing ability to significantly outperform the non-Beacon students in the same course. Anecdotal evidence also has suggested that other colleges that developed similar peer assisted programs in the state have also found the same dramatic results for these students.

## **What are the Benefits for Learning Assistants?**

Often, we evaluate the effect that a program has on student success and fail to mention other benefits that emerge as well. In the case of Beacon, it is important to note that, not only do the Beacon students benefit immensely, so do the Learning Assistants who report a deeper grasp and understanding of the course material through the process of clarifying it to the Beacon study group. Many Learning Assistants have indicated an interest in exploring teaching as a profession as a result of their experience. Furthermore, a number of Learning Assistants indicated that their "teaching experience" within the context of the study group significantly improved their own study habits and their success in subsequent courses at ARC. Their experience was similar to that of new instructors who discover they must learn material in greater depth in order to fully grasp the significance of critical concepts in their academic area and to present it effectively to others.

## **How Does Beacon Benefit Students?**

There appears to be an incorrect assumption often made at the college level that many of the skills that characterize successful students are readily available and known but simply not utilized by unsuccessful students. The evidence gathered from a number of focus group interviews involving Beacon students would suggest quite the opposite. A large proportion of the Beacon students simply have not been exposed to or learned skills necessary to be effective in most subjects. For example, the constellation of benefits that emerge from belonging to a study group were not known to most of the Beacon students because they had never been involved in one throughout their educational history.

Another significant finding was that Beacon students were comfortable in asking their peer Learning Assistants course-related questions that they would not have been comfortable in doing so with the instructor. Even more interesting was the discovery that as a result of this experience, these same students found that they became more comfortable in asking instructors questions in their other courses as

well as the Beacon course over time. This also resulted in feeling more connected with their instructors and their courses as they become more *skilled* at participating in them.

Learning course material in the environment of the study group was perceived as more enjoyable, particularly from the standpoint of the interchange between students through discussions and interpretation of course material. Beacon students also indicated that contact between students in the study group was not limited to the formal study session periods, but often extended socially outside of the classroom to provide emotional support and other academic stimulation beyond the scope of the course. Given that the community colleges in general, serve a commuter population, regular contact with other students and a feeling of belongingness can be an important feature for students. This appeared particularly important for those Beacon students with little or no group affiliations on campus.

Part of the Beacon process can involve discussions regarding course schedules, time management, study skills and test preparation strategies. Though study skills are often taught through counseling courses and often available within textbooks, these same skills when introduced and applied within the actual course setting were perceived by many Beacon students as an important factor for success in the course. Another significant finding was that many students reported that they had also adopted these same study skill strategies for use in their other courses.

## **Is Learning to Learn: The Critical Factor in Beacon?**

In a perfect world, all students in every course would be highly motivated and academically prepared. High-risk students are typically characterized to some degree as deficient in one or both areas. Though ARC provides remedial courses to address the preparedness issue, the reality is that remedial students do not have a high probability of making it to a transfer level English or math course. If academic preparedness is a prime ingredient for success, as many instructors would suggest, then one must wonder why remediation efforts are not more successful. Of course instruction would be justified in pointing out that motivation is also a critical component and that, despite a well-designed remedial course, students with low levels of motivation will generally not be successful. “If students would only spend more time at the desk and break more sweat, success would be the result” is often articulated. No one would argue that achieving a high level of success in any endeavor is accompanied by lots of hard work, but it is equally justified to point out that if one does not have effective learning strategies to work with, it can be quite difficult to be motivated to put in the hard work.

Individuals generally enjoy doing things they have some degree of understanding and success in. Though it is often pointed out that success breeds success, many students have difficulty achieving that first level of success upon which to build on. If the traditional teaching strategies employed in the K12 system did not provide some degree of success for these students, why would we expect to be anymore successful in providing the same classroom environment at the community college level? Furthermore, if

students don't know *how to succeed*, why would we expect them to be highly motivated particularly when they may have a long history of not being successful? If an essential ingredient that allows motivation to bloom is a matter of helping students to discover the fundamental tools and strategies that will give them an opportunity to succeed, we need to better identify and incorporate these processes in our teaching/learning paradigm.

For example, Beacon students were particularly impressed with their Learning Assistants' ability to simplify difficult concepts to a level where they could understand them. In the case of Beacon, it may be that the ability of the Learning Assistant to provide an interface between the instructor and the study group to more fully articulate and clarify the essential themes, concepts, and issues provided by instruction, is a pivotal and critical feature of the program. When students fail to grasp the primary themes, issues, or concepts for a course, they cannot effectively construct a meaningful framework to relate the course content and detail. Though students who are good at memorizing material will always tend to academically do well in courses through sheer effort and ability, a large portion of students have difficulty attaching course detail to a poorly understood theme, issue or concept, regardless of how much time they spend.

The organization of a framework around which to wrap course material is a skill that many good students learn early on in their educational process. Though an instructor may do an admirable job of providing students with the essential course material, many students need the translation efforts of other students or as in the case of Beacon, a Learning Assistant to make the material come alive sufficiently to be understood and be assimilated. As instructors become more and more familiar with their own material, it is easy to forget how difficult a topic was to master initially, and to have a Learning Assistant clarify the material may be just the ticket to getting students to grasp it properly.

*Learning to learn* may be one of the more essential ingredients we tend to overlook in education and this may be a critical factor that Beacon provides for many students. It is clear that instruction has the primary task of guiding students in *what to learn* but education may underestimate the importance of the skills required to learn the course material. How to effectively learn material is a skill that students must have to be successful and though there are many efforts to provide supplemental support for students through learning centers, tutoring services, and student services, nothing at ARC appears to approach the efficiency of the Beacon program to achieve this goal.

One of the most intriguing conclusions education could draw from these data, is that the Beacon program may indeed provide an ideal platform to help students *learn to learn*. If students gain new skills from this experience that can also be applied to other courses, then in effect education is helping students become the proverbial self-rolling wheel, a central goal of education. When you begin to catch fish, fishing generally gets a lot more fun.

Evidence emerging from focus groups would suggest that many of Beacon students had little or no experience with many of the concepts introduced in the Beacon study group. The hypothesis of Beacon being an environment that fosters *how to learn* begins to have even greater resonance when you consider that many Beacon students indicated that they had adapted or planned to use the skills acquired in the Beacon course for use in other courses during the term and in subsequent terms. This finding is remarkable in that it suggests that many of the skills that underlie learning were not only new for the Beacon students but also more importantly, were perceived as applicable to other courses as well. The fact that many Beacon students reported organizing study groups in other courses during the same term and in subsequent terms would tend to support this perception.

It should also be pointed out that Beacon students persist at a higher level across subsequent semesters than do non-Beacon, also indicating that the new learning skills acquired in Beacon were being successfully adapted in other courses. In fact, Beacon students were shown to persist at a level that generated sufficient additional FTES that would actually pay for the program itself. Though there is nothing magical or particularly remarkable in the overall structure of the Beacon program from an educational perspective, what may be remarkable is our lack of understanding of how critical some the basics in the learning process may be to many students.

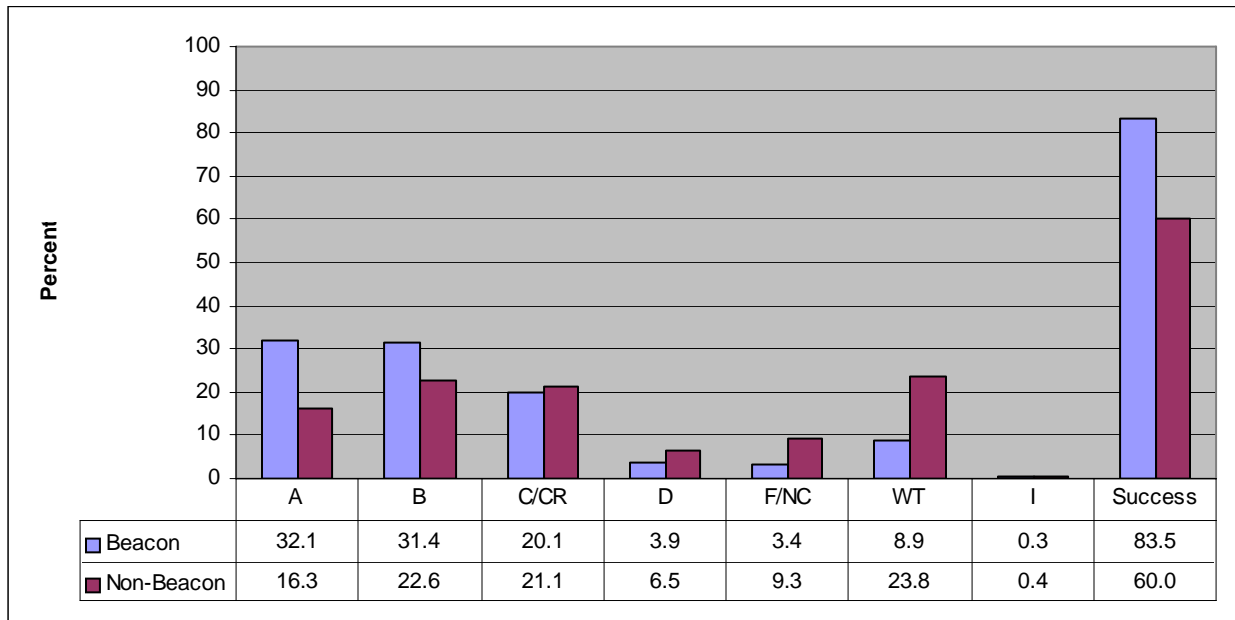
Peer to peer learning is certainly not a new concept, and many of the benefits have been widely documented and the benefits of study groups are well known among the better students. If *learning to learn* through a peer-to-peer environment is indeed the critical component that Beacon provides, the implications are important for the large population of students we lose annually. It has been well established that there is a revolving door for freshmen in California community colleges, with approximately 55-60% of first-time freshmen leaving after two semesters. Because Beacon uses an existing instructor, the only real monetary resources required are to fund the Learning Assistants as well as a coordinator to oversee the program. The Beacon program is very flexible in the sense that the program is not limited by the population of students it can serve, nor is it restricted by the type of course it can be implemented. Ironically, the concepts and features of the Beacon program are not really new, and provided much of the support system that instructors utilized in days past when the one-room K-12 school house attempted to provide an education across a wide range of age groups. Older students functioned largely in the role of the Learning Assistant to support the younger students educational process.

## **Introduction to Graphs and Tables**

The following pages contain graphs and tables that illustrate the effectiveness of the Beacon program. It is always refreshing for a researcher to present data that speaks for itself and in the case of the Beacon Program, the results are very clear. For the Beacon data presented on the following pages, the

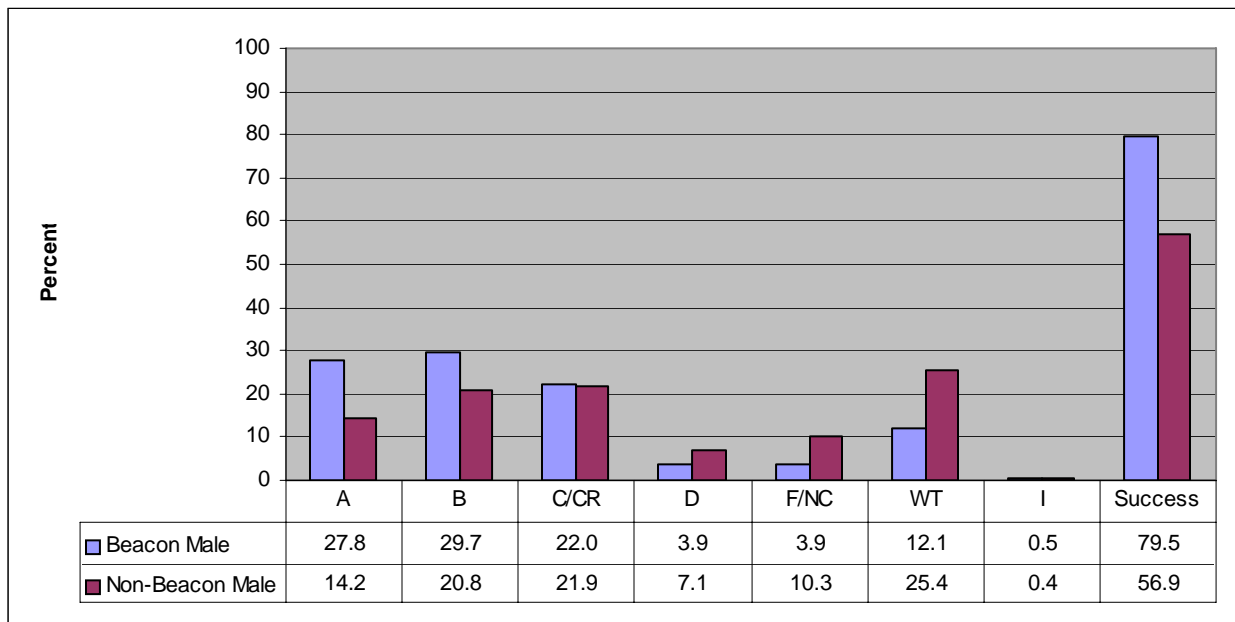
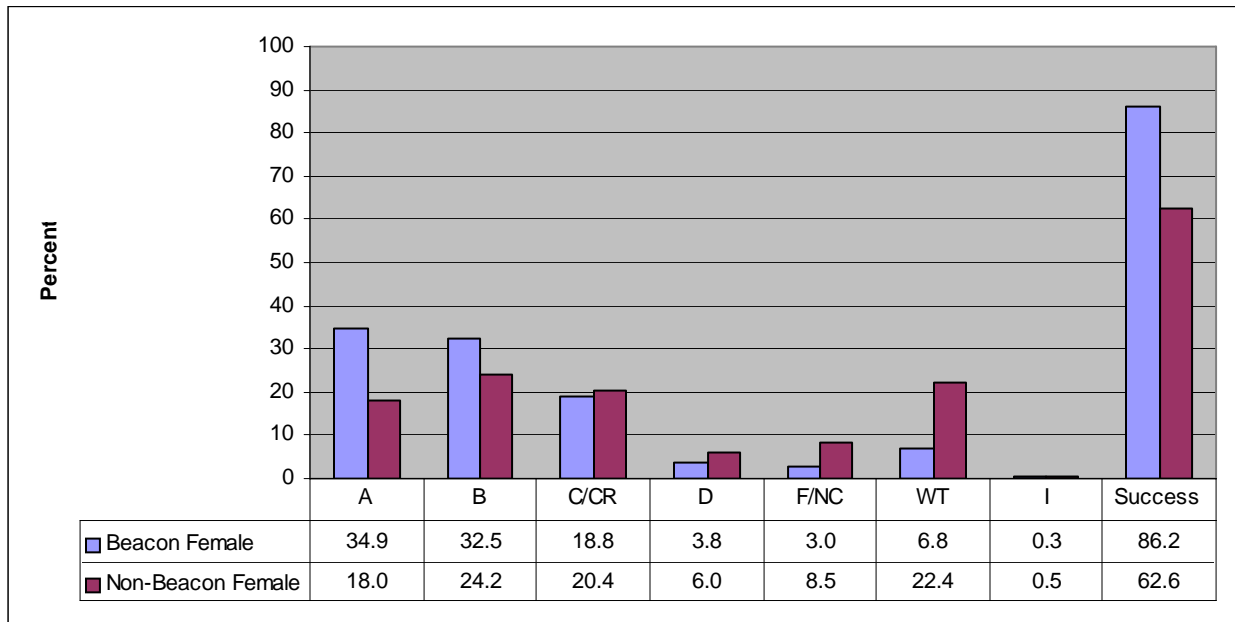
primary performance indicator shown is success rate. Success rate is defined as the percentage of successful grade notations (A, B, C, Cr) divided by all the grade notations (A, B, C, D, F, CR/NC,I) times 100. For example, if a student was enrolled in four courses, received a successful grade (A, B, C, Cr) in two of the courses and an unsuccessful grade in the other two, the overall success rate would be 50%. Success rate differs from GPA in that a student could take five courses, drop four of them at some point in the semester and with a “A” grade in the remaining course have a GPA of 4.0. The success rate for the same student would be 20%. The success rate therefore is more descriptive of the student’s actual performance, and when coupled with a grade distribution that shows the proportion of each grade notation gives a very clear picture of academic performance. The graphs that follow will only describe the success rate for Beacon and non-Beacon students, though several tables later in the document will provide both the grade distribution along with the overall success rate. The percentage of individual grades is important in determining the actual effectiveness of Beacon. Because success rate does not differentiate between and “A” and “C” grade notation, both are considered a successful grade. But when you examine the grade distribution, you will discover that Beacon students do not achieve higher success rates merely by passing the courses with a “C” grade, they actually outperform the non-Beacon students by earning a significantly higher percentage of “A” and “B” grade notations. Another grade notation important to evaluate is the percentage of penalty drops (WT). The penalty drop occurs after the census date occurs for the course and though it is not computed in the GPA, it added to the student’s transcript. Penalty drops can occur towards the end of the semester and often indicates that a student has been unsuccessful in the course. Beacon students show a significantly lower penalty drop rate, 8.9% compared to 23.8% for non-Beacon students and this again illustrates the importance of examining the grade notations along with success rate. All together, the success rate and grade notations provide a rich environment to more effectively evaluate student performance than can be gleaned from GPA.

## Overall Grade Distribution and Success Rate for Beacon and Non-Beacon



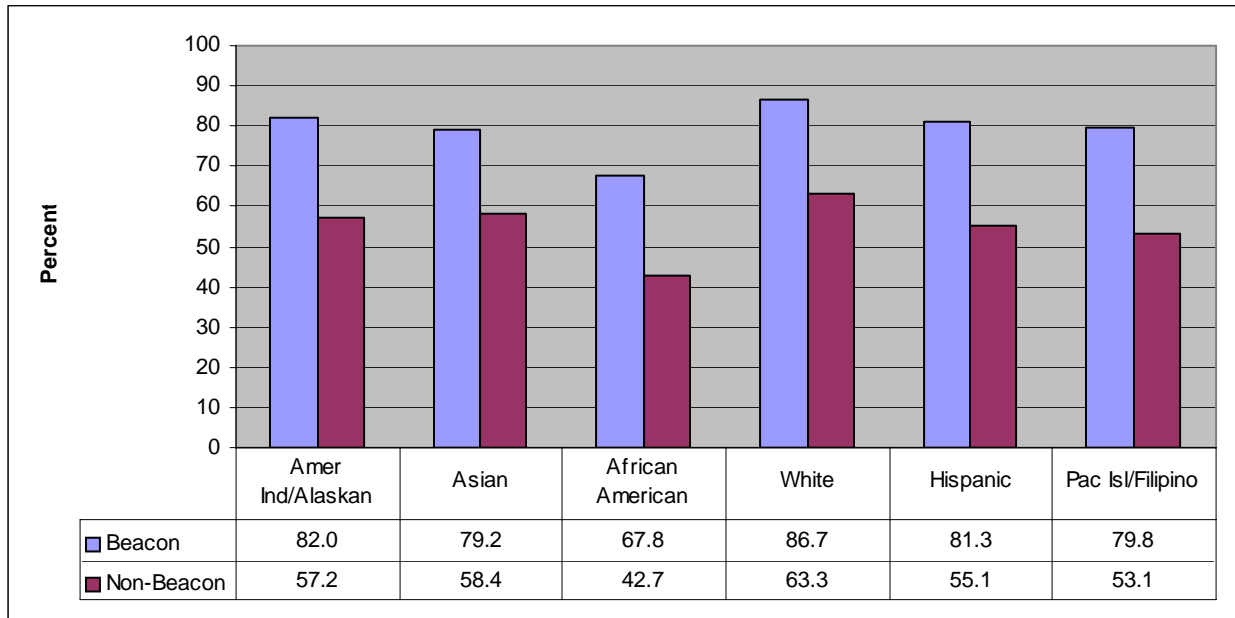
The overall success rate of 83.5% (n=2,610) for Beacon students compared to 60.0% for non-Beacon students (n=7,817) is quite remarkable. Though Beacon students earned significantly greater proportions of A and B grade notations as shown in the graph above, what is perhaps even more noteworthy are the lower levels of penalty drops (WT) 8.9% compared to 23.8%. Penalty drops after a census date may often indicate a student who is failing the course. Though there are legitimate reasons for dropping a course, more often than not, the students are bailing out of a course because they are not successful. Beacon students show a very low rate for penalty drops when you consider that for the past ten years at ARC, the overall penalty drop rate has held consistent at around 20%. When you combine all the unsuccessful grades (D, F, NC, I) for non-Beacon students (40%) and compare it to the total for Beacon students (16.5%), the difference between these two groups becomes even more apparent.

## Grade Distribution and Success Rate for Beacon and Non-Beacon by Gender



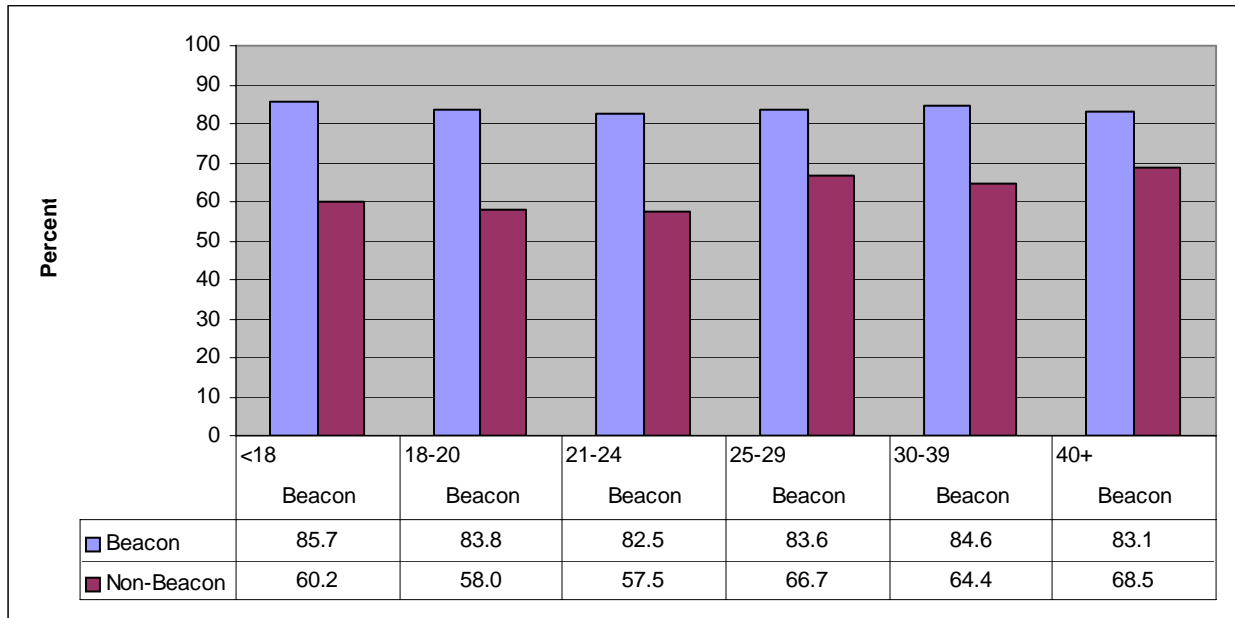
Traditionally, females have outperformed males at ARC over the past 10 years though more recent data would suggest that this gap is narrowing. Though the same gap is evident for Beacon and non-Beacon students, it is clear that both males and females associated with Beacon courses have significantly higher success rates than non-Beacon students.

## Success Rate for Beacon and Non-Beacon by Ethnicity



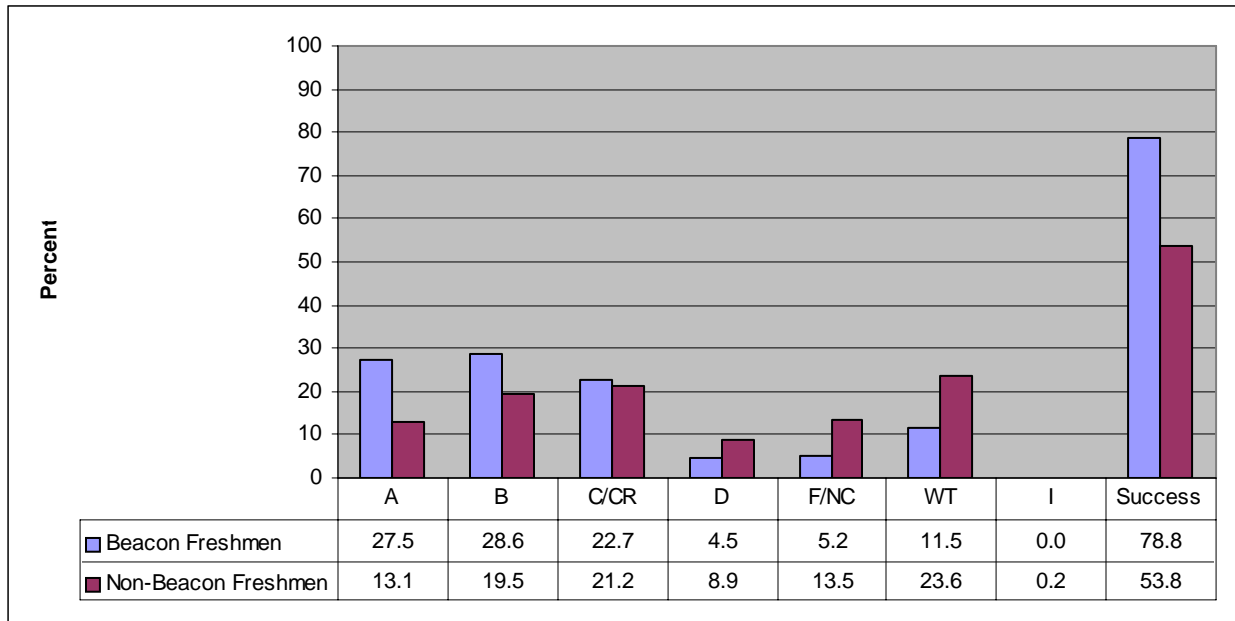
Increasing success of ethnic groups such as Hispanic and African American has been a serious endeavor for education over the past decade, and programs such as Student Equity, MESA and Puente among others, have put much effort into this objective. Yet, none can match the sheer efficiency of the Beacon program in terms of results. For example, in the past five-years, the overall success rate for African Americans at ARC in all course work has been 53.0%. When performance for this same ethnic group are viewed for only the Beacon courses, as shown in the graph above, the Beacon students achieve a 67.8% success rate compared with a 43.7% for the non-Beacon group. The ARC overall success in the past five-years for Hispanics has been 64.7%, yet in Beacon courses a very high 81.3%. American Indians also show large gains by participating in Beacon. Across the board, every ethnic group appears to greatly benefit from membership in the Beacon program.

## Success Rate for Beacon and Non-Beacon by Age Group



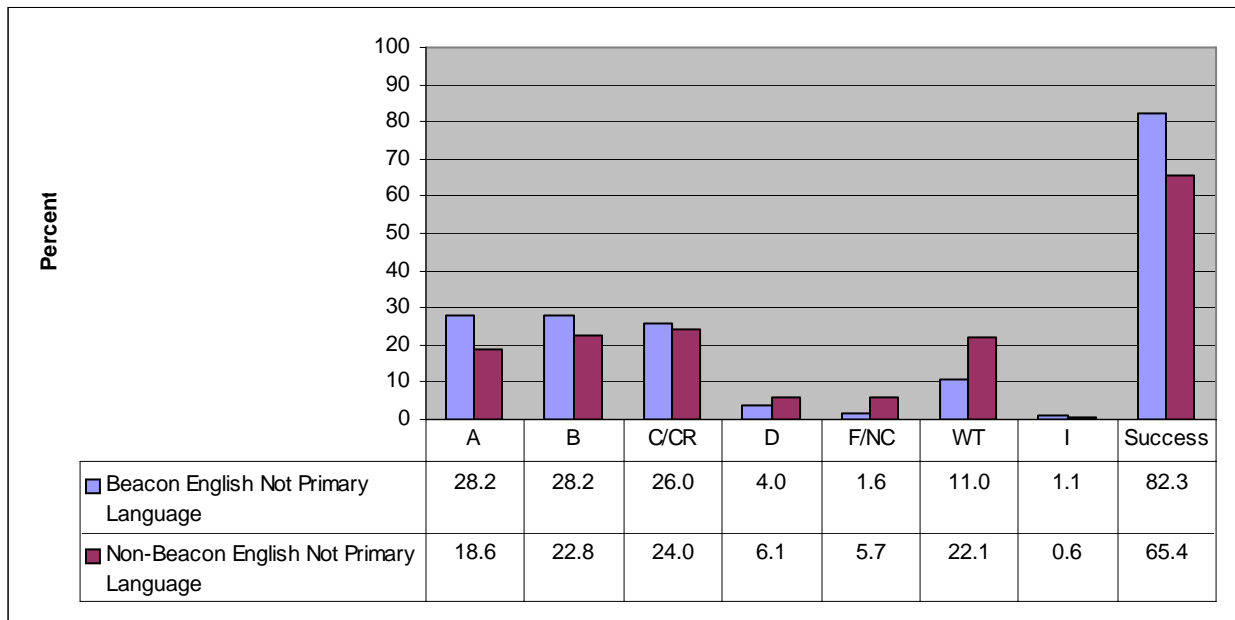
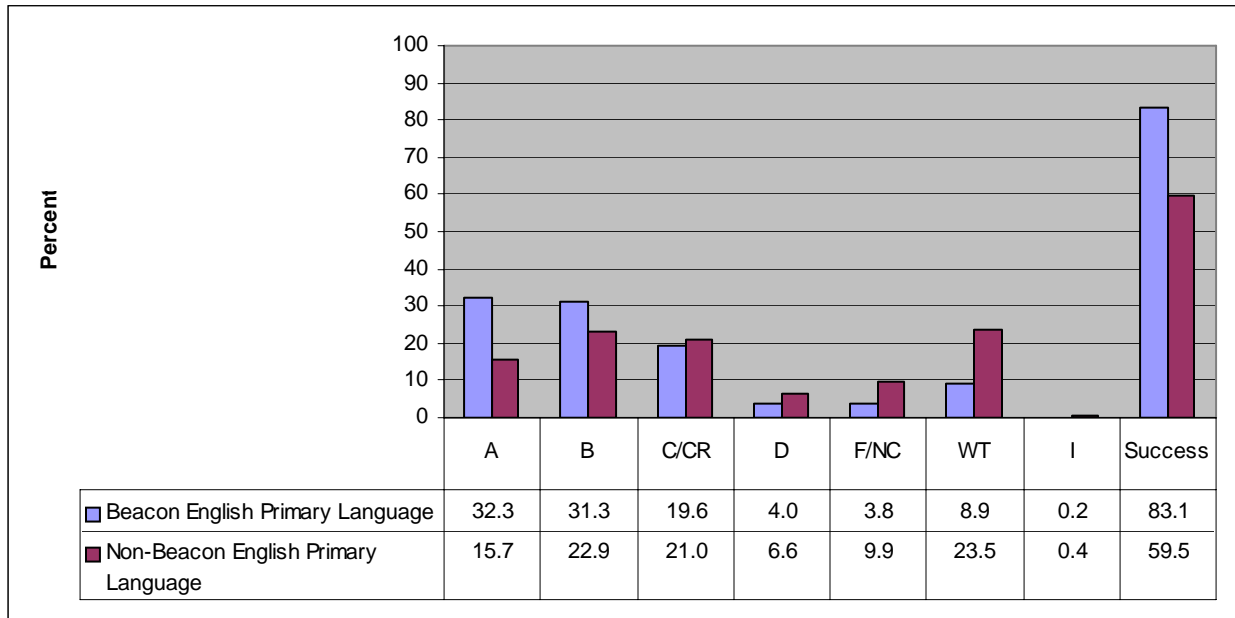
It has been well documented that older students tend to be more successful than younger students. For those students who participated in the Beacon program though, all age groups enjoyed very high levels of success. What is also intriguing is that the younger Beacon students (< 18 to 24) slightly outperform the older students.

## Success Rate for Beacon and Non-Beacon by First-time Freshmen



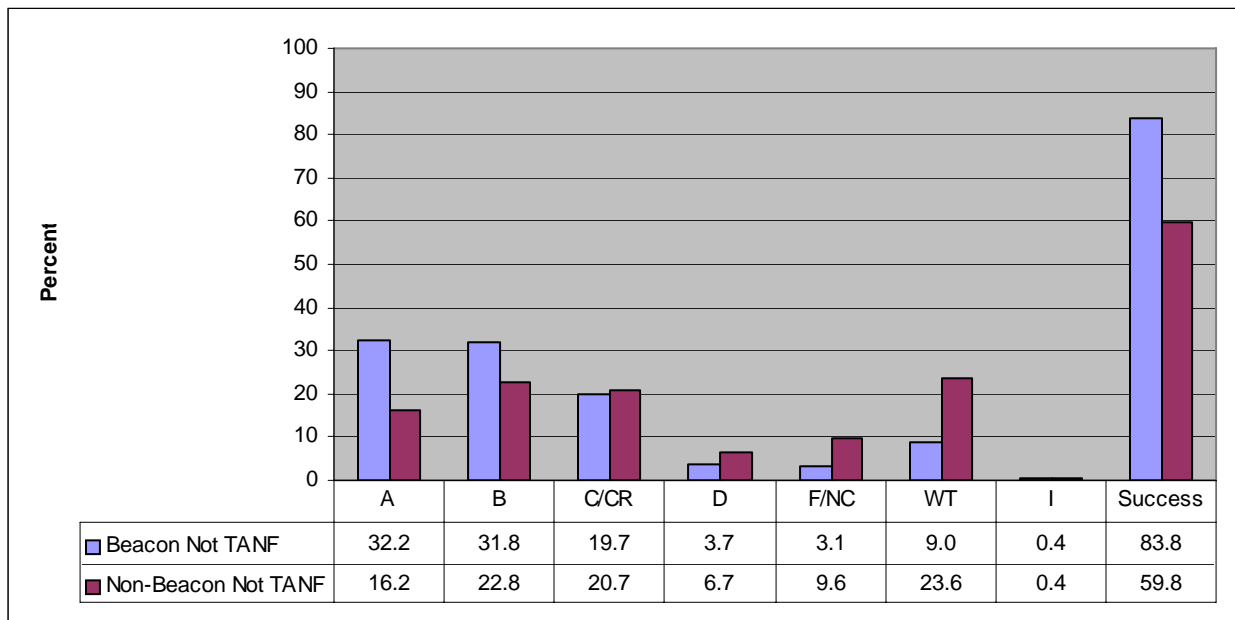
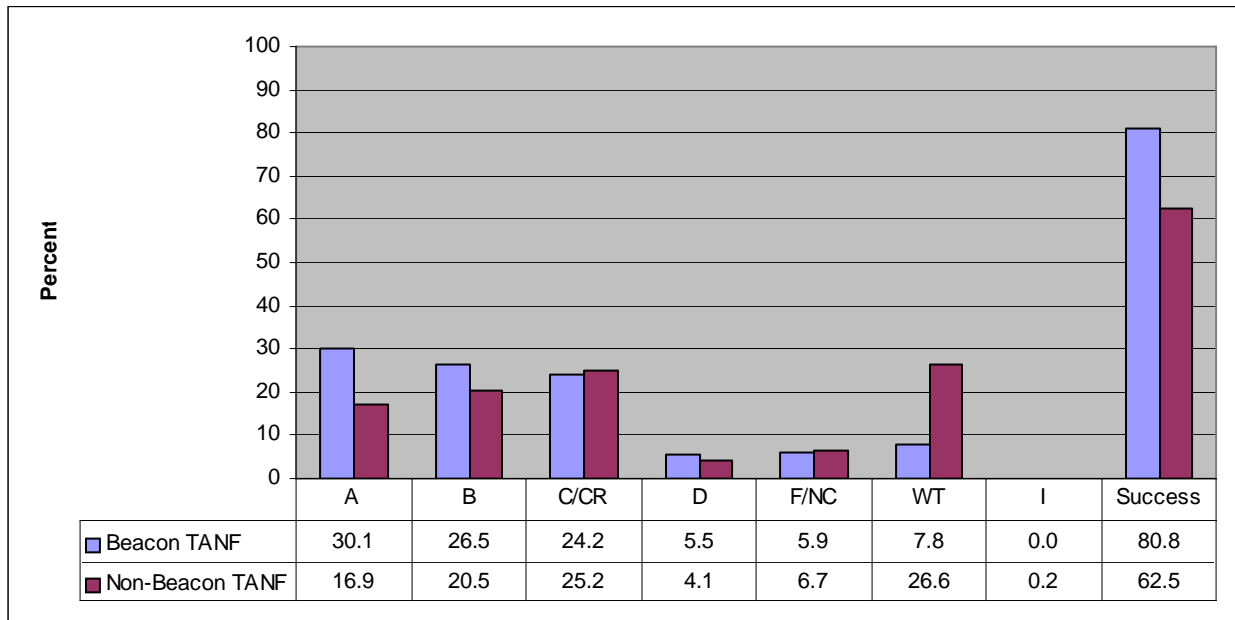
When students cannot figure out how to be successful, there are few incentives to continue on with college. For example, it is well documented that there is a revolving door for freshmen in California community colleges, with approximately 55-60% of freshmen leaving after two semesters and the data is no different at ARC. One of the drawbacks of losing freshmen is that the college must have an aggressive recruitment program or have an ample supply of students coming in the front door. Although we may be capable of keeping enrollments up to meet enrollment funding goals, we still must recognize that we have failed to meet the needs of a rather large population of students. Though it is convenient to argue that these students do not have sufficient motivation necessary to succeed, it is equally valid to suggest that we have tended to ignore the issues associated with this high-risk population. Considering that first-time freshmen enrolled in Beacon courses over a 13-semester period had an overall success rate of 78.8% (n=239) compared with 53.8% for non-Beacon students (n=976), it would make sense to provide the Beacon experience in courses that have had a high attrition rate for first-time freshmen.

## Success Rate for Beacon and Non-Beacon by Language



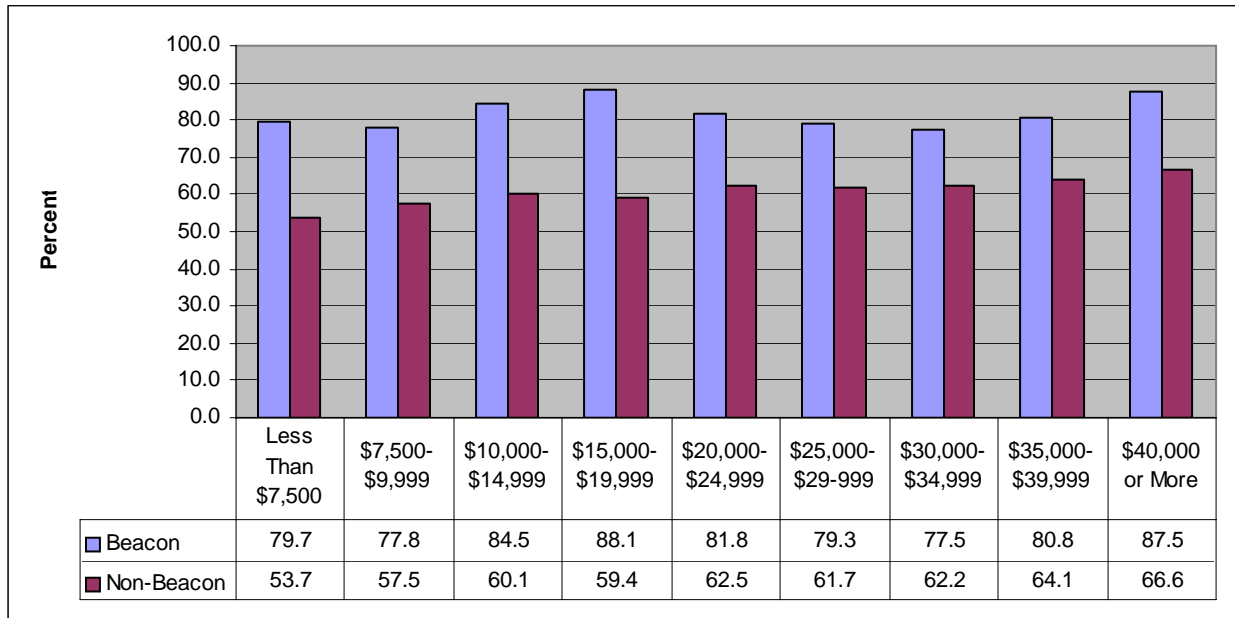
Participation in Beacon provides both ESL (English as a second language) and non-ESL (English is primary language) students with a definite advantage. Success rates for Beacon non-ESL (83.1%) and Beacon ESL (82.3%) are considerably higher than for the non-Beacon groups (59.5%, 65.4% respectively). What is interesting here is that traditionally ESL students outperform non-ESL students by about 7.5% across all courses at ARC. Here we see equivalent performance in the Beacon courses by both groups.

## Success Rate for Beacon and Non-Beacon by Temporary Aid To Needy Families (TANF)



Temporary Aid to Need Families (TANF) represents a category of students who self-report their welfare status on the student application and in general are eligible for the CalWORKs program. Though the CalWORKs program over the past few years has been shown to improve these students' success rates, given the recent budget cuts to the program, many of these students will need to find other avenues to help support their educational goals. TANF students enrolled in Beacon courses show clear improvement in success rates over those TANF students not utilizing the program.

## Success Rate for Beacon and Non-Beacon by Self-Reported Income



There is no other demographic variable that predicts student success better than grouped levels of self-reported income. Overall at ARC, there is very high correlation between the amount of self-reported income and the level of the students' success rate. The Beacon program appears to be an effective strategy to offset academic disadvantages that are associated with lower income levels. When you consider that the lowest income group (less than \$7,500) associated with Beacon students outperformed the highest non-Beacon income category (\$40,000) by 13.1% (79.7% to 66.6%) it is hard not to come to the conclusion that Beacon offers something very special for students.

## Comparison of Beacon and Non-Beacon Assessment Scores

With any educational program that is offered, there is always the concern that the more talented or motivated students will make use of the resources, and not serve the population it was really intended for. With this in mind, we explore whether Beacon and Non-Beacon students differ significantly on assessment measures used for course placement? Assessment scores can be used as a proxy for the degree of preparedness of students for English and math courses and have been often used as a prerequisite for other courses. The APS and MDTP assessment instruments were used for about 10 years, but in the past three years, ARC has given the Compass computerized assessment instrument for course placement. Because the evaluation of the Beacon project involved 13 semesters, and started in 1993, all assessment instruments used during the 13 terms are shown.

The average scores for the College Board APS writing and the MDTP math assessments indicate a very comparable level of preparedness for both Beacon and Non-Beacon Groups. Beacon students score somewhat lower on the Compass writing section (67.52% to 69.93%) and to some extent, slightly higher on most of the Compass math sections (about 2.6% overall). Overall, assessment scores do not suggest that Beacon students are any more prepared on these skill levels than are non-Beacon students, and thus the remarkable success rate seen with Beacon students cannot be attributed to a higher degree of preparedness, at least as evaluated by these assessment instruments.

|            |                 | English                          | Math Assessment Levels         |                                |                                |                                |                                |
|------------|-----------------|----------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
|            |                 |                                  | Math 1                         | Math 2                         | Math 3                         | Math 4                         | Math 5                         |
| Beacon     | APS WRITING     | <b>49.12</b><br><i>n = 1,152</i> |                                |                                |                                |                                |                                |
| Non-Beacon | APS WRITING     | <b>49.53</b><br><i>n = 3,079</i> |                                |                                |                                |                                |                                |
| Beacon     | COMPASS WRITING | <b>67.52</b><br><i>n = 231</i>   |                                |                                |                                |                                |                                |
| Non-Beacon | COMPASS WRITING | <b>69.93</b><br><i>n = 1062</i>  |                                |                                |                                |                                |                                |
| Beacon     | MDTP MATH       |                                  | <b>25.35</b><br><i>n = 252</i> | <b>23.77</b><br><i>n = 208</i> | <b>22.74</b><br><i>n = 236</i> | <b>24.15</b><br><i>n = 196</i> |                                |
| Non-Beacon | MDTP MATH       |                                  | <b>25.37</b><br><i>n = 857</i> | <b>24.16</b><br><i>n = 744</i> | <b>22.58</b><br><i>n = 626</i> | <b>24.27</b><br><i>n = 430</i> |                                |
| Beacon     | COMPASS MATH    |                                  | <b>42.32</b><br><i>n = 102</i> | <b>46.03</b><br><i>n = 68</i>  | <b>45.11</b><br><i>n = 9</i>   | <b>67.29</b><br><i>n = 14</i>  | <b>59.34</b><br><i>n = 44</i>  |
| Non-Beacon | COMPASS MATH    |                                  | <b>37.25</b><br><i>n = 569</i> | <b>43.37</b><br><i>n = 301</i> | <b>44.87</b><br><i>n = 45</i>  | <b>68.51</b><br><i>n = 41</i>  | <b>53.05</b><br><i>n = 101</i> |

## Comparisons of Beacon and Non-Beacon for Assessed and Not-Assessed Groups

There is a sizeable population of students that never go through the assessment process for one reason or another. When this group of students is evaluated, Beacon students without assessment scores outperform the non-Beacon students who were assessed.

|            | Success Rate                    |                                 |
|------------|---------------------------------|---------------------------------|
|            | Assessed                        | Not Assessed                    |
| Beacon     | <b>82.8</b><br><i>n = 1,723</i> | <b>84.9</b><br><i>n = 5,359</i> |
| Non-Beacon | <b>60.1</b><br><i>n = 887</i>   | <b>59.8</b><br><i>n = 2,458</i> |

## Grade Distribution and Success Rates in Individual Beacon Courses

With only 3 exceptions, Beacon students have significantly higher success rates across the participating courses than non-Beacon (highlighted below on the first page). In two of the three courses where non-Beacon students outperformed Beacon, the success rate for both groups was very high overall (BIOL 001, 92.9% to 78.6% and BIOL 006 90.5% to 80.0%). In the remaining course (Anthropology 11), it was not clear that the Beacon program had actually been effectively implemented. Though some courses have small n's (counts), when all courses are examined collectively, it is difficult to question that Beacon has had a profound impact on student success.

The following table represents all Beacon courses for which data was collected that have implemented the Beacon program in the past 9 years.

| Beacon Status | Course     | A Cnt | A pct | B Cnt | B Pct | C/CR Cnt | C/CR Pct | D Cnt | D Pct | F/NC Cnt | F/NC Pct | Wt Cnt | Wt Pct | I Cnt | I Pct | Success      | Total |
|---------------|------------|-------|-------|-------|-------|----------|----------|-------|-------|----------|----------|--------|--------|-------|-------|--------------|-------|
| Beacon        | Overall    | 837   | 32.1  | 819   | 31.4  | 524      | 20.1     | 101   | 3.9   | 88       | 3.4      | 232    | 8.9    | 9     | 0.3   | <b>83.5</b>  | 2610  |
| Non-Beacon    | Overall    | 1272  | 16.3  | 1768  | 22.6  | 1649     | 21.1     | 506   | 6.5   | 730      | 9.3      | 1860   | 23.8   | 32    | 0.4   | <b>60.0</b>  | 7817  |
| BEACON        | ACCT 001 A | 1     | 9.1   | 5     | 45.5  | 3        | 27.3     | 1     | 9.1   | 1        | 9.1      | 0      | 0      | 0     | 0     | <b>81.8</b>  | 11    |
| NON-BEACON    | ACCT 001 A | 13    | 21    | 16    | 25.8  | 12       | 19.4     | 2     | 3.2   | 5        | 8.1      | 13     | 21     | 1     | 1.6   | <b>66.1</b>  | 62    |
| BEACON        | ANTH 001   | 33    | 50.8  | 24    | 36.9  | 3        | 4.6      | 0     | 0     | 1        | 1.5      | 4      | 6.2    | 0     | 0     | <b>92.3</b>  | 65    |
| NON-BEACON    | ANTH 001   | 95    | 19.1  | 111   | 22.3  | 95       | 19.1     | 26    | 5.2   | 52       | 10.5     | 118    | 23.7   | 0     | 0     | <b>60.6</b>  | 497   |
| BEACON        | ANTH 011   | 2     | 25    | 2     | 25    | 0        | 0        | 1     | 12.5  | 0        | 0        | 3      | 37.5   | 0     | 0     | <b>50.0</b>  | 8     |
| NON-BEACON    | ANTH 011   | 11    | 30.6  | 8     | 22.2  | 8        | 22.2     | 2     | 5.6   | 0        | 0        | 7      | 19.4   | 0     | 0     | <b>75.0</b>  | 36    |
| BEACON        | ART 014    | 4     | 80    | 1     | 20    | 0        | 0        | 0     | 0     | 0        | 0        | 0      | 0      | 0     | 0     | <b>100.0</b> | 5     |
| NON-BEACON    | ART 014    | 9     | 31    | 6     | 20.7  | 2        | 6.9      | 1     | 3.4   | 0        | 0        | 11     | 37.9   | 0     | 0     | <b>58.6</b>  | 29    |
| BEACON        | BIOL 001 A | 6     | 42.9  | 4     | 28.6  | 3        | 21.4     | 1     | 7.1   | 0        | 0        | 0      | 0      | 0     | 0     | <b>92.9</b>  | 14    |
| NON-BEACON    | BIOL 001 A | 8     | 21.1  | 9     | 23.7  | 8        | 21.1     | 3     | 7.9   | 1        | 2.6      | 9      | 23.7   | 0     | 0     | <b>65.8</b>  | 38    |
| BEACON        | BIOL 003   | 9     | 32.1  | 9     | 32.1  | 4        | 14.3     | 2     | 7.1   | 2        | 7.1      | 2      | 7.1    | 0     | 0     | <b>78.6</b>  | 28    |
| NON-BEACON    | BIOL 003   | 5     | 35.7  | 5     | 35.7  | 3        | 21.4     | 0     | 0     | 0        | 0        | 1      | 7.1    | 0     | 0     | <b>92.9</b>  | 14    |
| BEACON        | BIOL 005   | 36    | 39.1  | 33    | 35.9  | 12       | 13       | 6     | 6.5   | 4        | 4.3      | 1      | 1.1    | 0     | 0     | <b>88.0</b>  | 92    |
| NON-BEACON    | BIOL 005   | 18    | 20.5  | 24    | 27.3  | 16       | 18.2     | 3     | 3.4   | 12       | 13.6     | 15     | 17     | 0     | 0     | <b>65.9</b>  | 88    |
| BEACON        | BIOL 006   | 4     | 80.0  | 0     | 0.0   | 0        | 0.0      | 0     | 0.0   | 0        | 0.0      | 1      | 20.0   | 0     | 0.0   | <b>80.0</b>  | 5     |
| NON-BEACON    | BIOL 006   | 11    | 52.4  | 7     | 33.3  | 1        | 4.8      | 0     | 0.0   | 0        | 0.0      | 2      | 9.5    | 0     | 0.0   | <b>90.5</b>  | 21    |
| BEACON        | BIOL 012   | 4     | 57.1  | 0     | 0     | 1        | 14.3     | 2     | 28.6  | 0        | 0        | 0      | 0      | 0     | 0     | <b>71.4</b>  | 7     |
| NON-BEACON    | BIOL 012   | 2     | 6.3   | 5     | 15.6  | 10       | 31.3     | 7     | 21.9  | 0        | 0        | 8      | 25     | 0     | 0     | <b>53.1</b>  | 32    |
| BEACON        | BIOL 016   | 53    | 29.4  | 74    | 41.1  | 35       | 19.4     | 8     | 4.4   | 4        | 2.2      | 6      | 3.3    | 0     | 0     | <b>90.0</b>  | 180   |
| NON-BEACON    | BIOL 016   | 38    | 16.8  | 46    | 20.4  | 54       | 23.9     | 20    | 8.8   | 17       | 7.5      | 51     | 22.6   | 0     | 0     | <b>61.1</b>  | 226   |

| Beacon Status | Course     | A Cnt | A pct | B Cnt | B Pct | C/CR Cnt | C/CR Pct | D Cnt | D Pct | F/NC Cnt | F/NC Pct | Wt Cnt | Wt Pct | I Cnt | I Pct | Success      | Total |
|---------------|------------|-------|-------|-------|-------|----------|----------|-------|-------|----------|----------|--------|--------|-------|-------|--------------|-------|
| BEACON        | BIOL 025   | 2     | 28.6  | 3     | 42.9  | 1        | 14.3     | 0     | 0     | 0        | 0        | 1      | 14.3   | 0     | 0     | <b>85.7</b>  | 7     |
| NON-BEACON    | BIOL 025   | 10    | 18.2  | 18    | 32.7  | 16       | 29.1     | 2     | 3.6   | 0        | 0        | 9      | 16.4   | 0     | 0     | <b>80.0</b>  | 55    |
| BEACON        | CHEM 001 A | 120   | 24.8  | 151   | 31.3  | 125      | 25.9     | 11    | 2.3   | 16       | 3.3      | 58     | 12     | 2     | 0.4   | <b>82.0</b>  | 483   |
| NON-BEACON    | CHEM 001 A | 127   | 15.9  | 135   | 16.9  | 185      | 23.1     | 35    | 4.4   | 93       | 11.6     | 219    | 27.3   | 7     | 0.9   | <b>55.8</b>  | 801   |
| BEACON        | CHEM 001 B | 38    | 25.7  | 54    | 36.5  | 41       | 27.7     | 7     | 4.7   | 1        | 0.7      | 6      | 4.1    | 1     | 0.7   | <b>89.9</b>  | 148   |
| NON-BEACON    | CHEM 001 B | 66    | 17.5  | 107   | 28.3  | 125      | 33.1     | 15    | 4     | 20       | 5.3      | 43     | 11.4   | 2     | 0.5   | <b>78.8</b>  | 378   |
| BEACON        | CHEM 002 A | 68    | 45.3  | 51    | 34    | 16       | 10.7     | 0     | 0     | 6        | 4        | 9      | 6      | 0     | 0     | <b>90.0</b>  | 150   |
| NON-BEACON    | CHEM 002 A | 30    | 19.5  | 40    | 26    | 35       | 22.7     | 4     | 2.6   | 9        | 5.8      | 36     | 23.4   | 0     | 0     | <b>68.2</b>  | 154   |
| BEACON        | CHEM 002 B | 37    | 43.5  | 32    | 37.6  | 11       | 12.9     | 2     | 2.4   | 1        | 1.2      | 2      | 2.4    | 0     | 0     | <b>94.1</b>  | 85    |
| NON-BEACON    | CHEM 002 B | 20    | 16.7  | 33    | 27.5  | 18       | 15       | 2     | 1.7   | 5        | 4.2      | 40     | 33.3   | 2     | 1.7   | <b>59.2</b>  | 120   |
| BEACON        | CHEM 003   | 56    | 35.7  | 36    | 22.9  | 27       | 17.2     | 3     | 1.9   | 4        | 2.5      | 29     | 18.5   | 2     | 1.3   | <b>75.8</b>  | 157   |
| NON-BEACON    | CHEM 003   | 39    | 16.4  | 49    | 20.6  | 39       | 16.4     | 12    | 5     | 23       | 9.7      | 76     | 31.9   | 0     | 0     | <b>53.4</b>  | 238   |
| BEACON        | CHEM 012 A | 4     | 33.3  | 5     | 41.7  | 0        | 0        | 0     | 0     | 0        | 0        | 0      | 0      | 3     | 25    | <b>75.0</b>  | 12    |
| NON-BEACON    | CHEM 012 A | 4     | 22.2  | 4     | 22.2  | 3        | 16.7     | 0     | 0     | 0        | 0        | 4      | 22.2   | 3     | 16.7  | <b>61.1</b>  | 18    |
| BEACON        | CHEM 012 B | 4     | 18.2  | 10    | 45.5  | 4        | 18.2     | 0     | 0     | 0        | 0        | 4      | 18.2   | 0     | 0     | <b>81.8</b>  | 22    |
| NON-BEACON    | CHEM 012 B | 6     | 22.2  | 8     | 29.6  | 7        | 25.9     | 1     | 3.7   | 1        | 3.7      | 4      | 14.8   | 0     | 0     | <b>77.8</b>  | 27    |
| BEACON        | ECON 001 A | 7     | 19.4  | 13    | 36.1  | 5        | 13.9     | 4     | 11.1  | 2        | 5.6      | 5      | 13.9   | 0     | 0     | <b>69.4</b>  | 36    |
| NON-BEACON    | ECON 001 A | 65    | 13.7  | 98    | 20.7  | 83       | 17.5     | 49    | 10.3  | 64       | 13.5     | 115    | 24.3   | 0     | 0     | <b>51.9</b>  | 474   |
| BEACON        | ECON 001 B | 1     | 12.5  | 3     | 37.5  | 1        | 12.5     | 0     | 0     | 1        | 12.5     | 2      | 25     | 0     | 0     | <b>62.5</b>  | 8     |
| NON-BEACON    | ECON 001 B | 6     | 6.7   | 19    | 21.1  | 15       | 16.7     | 7     | 7.8   | 13       | 14.4     | 30     | 33.3   | 0     | 0     | <b>44.4</b>  | 90    |
| BEACON        | ENGL 001 B | 2     | 66.7  | 0     | 0     | 1        | 33.3     | 0     | 0     | 0        | 0        | 0      | 0      | 0     | 0     | <b>100.0</b> | 3     |
| NON-BEACON    | ENGL 001 B | 3     | 21.4  | 8     | 57.1  | 2        | 14.3     | 0     | 0     | 0        | 0        | 1      | 7.1    | 0     | 0     | <b>92.9</b>  | 14    |
| BEACON        | ENGL 002   | 14    | 87.5  | 0     | 0     | 0        | 0        | 0     | 0     | 0        | 0        | 2      | 12.5   | 0     | 0     | <b>87.5</b>  | 16    |
| NON-BEACON    | ENGL 002   | 6     | 46.2  | 5     | 38.5  | 0        | 0        | 0     | 0     | 0        | 0        | 2      | 15.4   | 0     | 0     | <b>84.6</b>  | 13    |
| BEACON        | ESL 270 R  | 3     | 37.5  | 3     | 37.5  | 1        | 12.5     | 0     | 0     | 1        | 12.5     | 0      | 0      | 0     | 0     | <b>87.5</b>  | 8     |
| NON-BEACON    | ESL 270 R  | 12    | 25    | 17    | 35.4  | 7        | 14.6     | 1     | 2.1   | 0        | 0        | 11     | 22.9   | 0     | 0     | <b>75.0</b>  | 48    |
| BEACON        | GEOG 001   | 33    | 55.9  | 17    | 28.8  | 7        | 11.9     | 1     | 1.7   | 0        | 0        | 1      | 1.7    | 0     | 0     | <b>96.6</b>  | 59    |
| NON-BEACON    | GEOG 001   | 53    | 11    | 102   | 21.1  | 102      | 21.1     | 48    | 9.9   | 60       | 12.4     | 118    | 24.4   | 0     | 0     | <b>53.2</b>  | 483   |
| BEACON        | GEOL 008   | 1     | 33.3  | 1     | 33.3  | 1        | 33.3     | 0     | 0     | 0        | 0        | 0      | 0      | 0     | 0     | <b>100.0</b> | 3     |

| Beacon Status | Course     | A Cnt | A pct | B Cnt | B Pct | C/CR Cnt | C/CR Pct | D Cnt | D Pct | F/NC Cnt | F/NC Pct | Wt Cnt | Wt Pct | I Cnt | I Pct | Success | Total |
|---------------|------------|-------|-------|-------|-------|----------|----------|-------|-------|----------|----------|--------|--------|-------|-------|---------|-------|
| NON-BEACON    | GEOL 008   | 18    | 29    | 21    | 33.9  | 10       | 16.1     | 2     | 3.2   | 4        | 6.5      | 7      | 11.3   | 0     | 0     | 79.0    | 62    |
| BEACON        | H E 010    | 8     | 50    | 4     | 25    | 2        | 12.5     | 1     | 6.3   | 1        | 6.3      | 0      | 0      | 0     | 0     | 87.5    | 16    |
| NON-BEACON    | H E 010    | 13    | 11.5  | 36    | 31.9  | 14       | 12.4     | 6     | 5.3   | 6        | 5.3      | 38     | 33.6   | 0     | 0     | 55.8    | 113   |
| BEACON        | H M 063 A  | 1     | 100   | 0     | 0     | 0        | 0        | 0     | 0     | 0        | 0        | 0      | 0      | 0     | 0     | 100.0   | 1     |
| NON-BEACON    | H M 063 A  | 3     | 15.8  | 3     | 15.8  | 4        | 21.1     | 1     | 5.3   | 2        | 10.5     | 6      | 31.6   | 0     | 0     | 52.6    | 19    |
| BEACON        | H M 063 B  | 1     | 50    | 0     | 0     | 0        | 0        | 0     | 0     | 0        | 0        | 1      | 50     | 0     | 0     | 50.0    | 2     |
| NON-BEACON    | H M 063 B  | 7     | 31.8  | 1     | 4.5   | 2        | 9.1      | 0     | 0     | 1        | 4.5      | 11     | 50     | 0     | 0     | 45.5    | 22    |
| BEACON        | HIST 016 W | 9     | 47.4  | 2     | 10.5  | 5        | 26.3     | 0     | 0     | 1        | 5.3      | 2      | 10.5   | 0     | 0     | 84.2    | 19    |
| NON-BEACON    | HIST 016 W | 24    | 13.6  | 39    | 22    | 49       | 27.7     | 15    | 8.5   | 21       | 11.9     | 27     | 15.3   | 2     | 1.1   | 63.3    | 177   |
| BEACON        | HUM 002    | 0     | 0     | 1     | 33.3  | 1        | 33.3     | 0     | 0     | 0        | 0        | 1      | 33.3   | 0     | 0     | 66.7    | 3     |
| NON-BEACON    | HUM 002    | 7     | 9     | 10    | 12.8  | 19       | 24.4     | 6     | 7.7   | 21       | 26.9     | 15     | 19.2   | 0     | 0     | 46.2    | 78    |
| BEACON        | INDIS 002  | 1     | 25    | 3     | 75    | 0        | 0        | 0     | 0     | 0        | 0        | 0      | 0      | 0     | 0     | 100.0   | 4     |
| NON-BEACON    | INDIS 002  | 4     | 21.1  | 6     | 31.6  | 5        | 26.3     | 1     | 5.3   | 1        | 5.3      | 2      | 10.5   | 0     | 0     | 78.9    | 19    |
| BEACON        | ITAL 001 A | 1     | 100   | 0     | 0     | 0        | 0        | 0     | 0     | 0        | 0        | 0      | 0      | 0     | 0     | 100.0   | 1     |
| NON-BEACON    | ITAL 001 A | 4     | 19    | 6     | 28.6  | 1        | 4.8      | 2     | 9.5   | 1        | 4.8      | 7      | 33.3   | 0     | 0     | 52.4    | 21    |
| BEACON        | MATH 009 A | 19    | 24.1  | 24    | 30.4  | 18       | 22.8     | 5     | 6.3   | 2        | 2.5      | 11     | 13.9   | 0     | 0     | 77.2    | 79    |
| NON-BEACON    | MATH 009 A | 13    | 12.6  | 27    | 26.2  | 13       | 12.6     | 9     | 8.7   | 8        | 7.8      | 33     | 32     | 0     | 0     | 51.5    | 103   |
| BEACON        | MATH 029   | 27    | 20.1  | 28    | 20.9  | 34       | 25.4     | 11    | 8.2   | 10       | 7.5      | 24     | 17.9   | 0     | 0     | 66.4    | 134   |
| NON-BEACON    | MATH 029   | 21    | 9.6   | 37    | 16.9  | 41       | 18.7     | 18    | 8.2   | 15       | 6.8      | 87     | 39.7   | 0     | 0     | 45.2    | 219   |
| BEACON        | MATH 051   | 5     | 20    | 9     | 36    | 5        | 20       | 2     | 8     | 2        | 8        | 2      | 8      | 0     | 0     | 76.0    | 25    |
| NON-BEACON    | MATH 051   | 14    | 13.2  | 17    | 16    | 13       | 12.3     | 7     | 6.6   | 14       | 13.2     | 40     | 37.7   | 1     | 0.9   | 41.5    | 106   |
| BEACON        | MATH 053   | 8     | 18.2  | 8     | 18.2  | 17       | 38.6     | 3     | 6.8   | 2        | 4.5      | 6      | 13.6   | 0     | 0     | 75.0    | 44    |
| NON-BEACON    | MATH 053   | 22    | 14.1  | 19    | 12.2  | 40       | 25.6     | 7     | 4.5   | 13       | 8.3      | 55     | 35.3   | 0     | 0     | 51.9    | 156   |
| BEACON        | MATH 210 A | 2     | 28.6  | 3     | 42.9  | 1        | 14.3     | 0     | 0     | 1        | 14.3     | 0      | 0      | 0     | 0     | 85.7    | 7     |
| NON-BEACON    | MATH 210 A | 17    | 21    | 21    | 25.9  | 28       | 34.6     | 1     | 1.2   | 11       | 13.6     | 3      | 3.7    | 0     | 0     | 81.5    | 81    |
| BEACON        | MATH 210 B | 0     | 0     | 0     | 0     | 1        | 100      | 0     | 0     | 0        | 0        | 0      | 0      | 0     | 0     | 100.0   | 1     |
| NON-BEACON    | MATH 210 B | 1     | 16.7  | 2     | 33.3  | 1        | 16.7     | 0     | 0     | 1        | 16.7     | 1      | 16.7   | 0     | 0     | 66.7    | 6     |
| BEACON        | NURSE 002  | 0     | 0     | 2     | 66.7  | 1        | 33.3     | 0     | 0     | 0        | 0        | 0      | 0      | 0     | 0     | 100.0   | 3     |
| NON-BEACON    | NURSE 002  | 2     | 28.6  | 4     | 57.1  | 1        | 14.3     | 0     | 0     | 0        | 0        | 0      | 0      | 0     | 0     | 100.0   | 7     |

| Beacon Status | Course     | A Cnt | A pct | B Cnt | B Pct | C/CR Cnt | C/CR Pct | D Cnt | D Pct | F/NC Cnt | F/NC Pct | Wt Cnt | Wt Pct | I Cnt | I Pct | Success | Total |
|---------------|------------|-------|-------|-------|-------|----------|----------|-------|-------|----------|----------|--------|--------|-------|-------|---------|-------|
| BEACON        | PHYS 005 A | 1     | 16.7  | 1     | 16.7  | 2        | 33.3     | 1     | 16.7  | 0        | 0        | 1      | 16.7   | 0     | 0     | 66.7    | 6     |
| NON-BEACON    | PHYS 005 A | 2     | 7.7   | 7     | 26.9  | 4        | 15.4     | 4     | 15.4  | 0        | 0        | 9      | 34.6   | 0     | 0     | 50.0    | 26    |
| BEACON        | POL S 001  | 0     | 0     | 0     | 0     | 2        | 100      | 0     | 0     | 0        | 0        | 0      | 0      | 0     | 0     | 100.0   | 2     |
| NON-BEACON    | POL S 001  | 7     | 12.5  | 22    | 39.3  | 18       | 32.1     | 1     | 1.8   | 6        | 10.7     | 2      | 3.6    | 0     | 0     | 83.9    | 56    |
| BEACON        | PSYC 001   | 12    | 42.9  | 10    | 35.7  | 3        | 10.7     | 0     | 0     | 1        | 3.6      | 2      | 7.1    | 0     | 0     | 89.3    | 28    |
| NON-BEACON    | PSYC 001   | 21    | 9.9   | 33    | 15.6  | 52       | 24.5     | 24    | 11.3  | 18       | 8.5      | 62     | 29.2   | 2     | 0.9   | 50.0    | 212   |
| BEACON        | PSYC 005   | 5     | 25    | 5     | 25    | 6        | 30       | 2     | 10    | 1        | 5        | 1      | 5      | 0     | 0     | 80.0    | 20    |
| NON-BEACON    | PSYC 005   | 35    | 36.5  | 21    | 21.9  | 15       | 15.6     | 2     | 2.1   | 7        | 7.3      | 16     | 16.7   | 0     | 0     | 74.0    | 96    |
| BEACON        | PSYC 009   | 2     | 33.3  | 1     | 16.7  | 2        | 33.3     | 0     | 0     | 0        | 0        | 1      | 16.7   | 0     | 0     | 83.3    | 6     |
| NON-BEACON    | PSYC 009   | 5     | 15.6  | 5     | 15.6  | 0        | 0        | 1     | 3.1   | 2        | 6.3      | 19     | 59.4   | 0     | 0     | 31.3    | 32    |
| BEACON        | SOC 001 A  | 8     | 33.3  | 8     | 33.3  | 2        | 8.3      | 3     | 12.5  | 3        | 12.5     | 0      | 0      | 0     | 0     | 75.0    | 24    |
| NON-BEACON    | SOC 001 A  | 24    | 10.9  | 52    | 23.5  | 50       | 22.6     | 12    | 5.4   | 50       | 22.6     | 33     | 14.9   | 0     | 0     | 57.0    | 221   |
| BEACON        | SPAN 001 A | 3     | 27.3  | 3     | 27.3  | 1        | 9.1      | 0     | 0     | 0        | 0        | 4      | 36.4   | 0     | 0     | 63.6    | 11    |
| NON-BEACON    | SPAN 001 A | 5     | 10.4  | 12    | 25    | 4        | 8.3      | 2     | 4.2   | 6        | 12.5     | 19     | 39.6   | 0     | 0     | 43.8    | 48    |

## Remedial Course Success

Improving basic skills success rates has been a long-term goal for community colleges, and ARC is no exception. For 100 California community colleges evaluated over a recent two-year period, the overall success rate for elementary algebra was 46.9%. Over the past five-years, the overall success rate at ARC for elementary algebra was slightly higher than the statewide average at 47.8%. In other words, less than 50% of the students pass the course with a successful grade (A, B, C/CR). Initially in 1993-1994, ARC had targeted math for Beacon courses, and in elementary algebra, Beacon students success rate was 76% (n=25) compared to 41.5% for non-Beacon (n=106) in seven elementary algebra sections as shown below. Note that only 8% of the Beacon students dropped the course after the census date compared with 37.7% for the non-Beacon students. This low withdrawal rate of 8.0% also contrasts sharply with the overall withdrawal rate 30.3% rate for ARC elementary algebra seen over the past five years.

| Elementary Algebra |          |       |       |       |       |          |          |       |       |          |          |        |        |       |       |         |       |
|--------------------|----------|-------|-------|-------|-------|----------|----------|-------|-------|----------|----------|--------|--------|-------|-------|---------|-------|
| Beacon Status      | Course   | A Cnt | A pct | B Cnt | B pct | C/CR Cnt | C/CR Pct | D Cnt | D Pct | F/NC Cnt | F/NC Pct | Wt Cnt | Wt Pct | I Cnt | I Pct | Success | Total |
| BEACON             | MATH 051 | 5     | 20.0  | 9     | 36.0  | 5        | 20.0     | 2     | 8.0   | 2        | 8.0      | 2      | 8.0    | 0     | 0.0   | 76.0    | 25    |
| NON-BEACON         | MATH 051 | 14    | 13.2  | 17    | 16.0  | 13       | 12.3     | 7     | 6.6   | 14       | 13.2     | 40     | 37.7   | 1     | 0.9   | 41.5    | 106   |

Given the huge increase in success it would seem appropriate that math would continue to incorporate Beacon in its program, yet since 1995, the general consensus by the individuals coordinating the Beacon program was that overall the math faculty were not that supportive of the program and little effort was made to further implement Beacon in math. Recently, a major reason for instructors not continuing with the Beacon program for elementary math has emerged. It turns out that math instructors regularly change

courses from semester to semester. For example, instructors may teach elementary algebra in the fall and then intermediate algebra in the spring and were not able to recruit students to function as their Learning Assistants for the following fall in elementary algebra. Instructors identifying potential Beacon Learning Assistants in their courses and sharing this information with those instructors who will be teaching the same course the following term could solve this issue.

## Grade Distribution and Success Rate for All Demographics by Beacon and Non-Beacon Students

The following table provides the grade distribution and success rate for the demographic groups shown in the earlier graphs. Where the graphs displayed only the success rates, this table also shows the grade distribution to better illustrate the proportions of individual grade notations earned by Beacon and non-Beacon students. For example, under the column “A pct” the value represents the percentage of students receiving an “A” grade notation. Just to the left of this value is the actual count of students receiving this grade. At the right side of the table is the success rate shown in the graphs, and also the total number of students for both the Beacon and non-Beacon groups. Success rate is calculated by dividing the count of “A+B+C/CR” grade notations by the count of all grade notations shown below. This value is then multiplied by 100 to determine the overall success rate. For example, if a student had 4 courses, was successful in 2 of the courses with a grade of A,B,C or CR (credit), and was unsuccessful in the other two courses (all other grade notations) they would have a success rate of 50%. Another way of putting it would be that this student received a successful grade in 50% of their courses.

|            | Group            | A Cnt | A pct | B Cnt | B pct | C/CR Cnt | C/CR Pct | D Cnt | D Pct | F/NC Cnt | F/NC Pct | Wt Cnt | Wt Pct | I Cnt | I Pct | Success | Total |
|------------|------------------|-------|-------|-------|-------|----------|----------|-------|-------|----------|----------|--------|--------|-------|-------|---------|-------|
| Beacon     | Overall          | 837   | 32.1  | 819   | 31.4  | 524      | 20.1     | 101   | 3.9   | 88       | 3.4      | 232    | 8.9    | 9     | 0.3   | 83.5    | 2610  |
| Non-Beacon | Overall          | 1272  | 16.3  | 1768  | 22.6  | 1649     | 21.1     | 506   | 6.5   | 730      | 9.3      | 1860   | 23.8   | 32    | 0.4   | 60.0    | 7817  |
| Beacon     | Female           | 548   | 34.9  | 510   | 32.5  | 295      | 18.8     | 60    | 3.8   | 47       | 3        | 106    | 6.8    | 4     | 0.3   | 86.2    | 1570  |
| Non-Beacon | Female           | 760   | 18    | 1021  | 24.2  | 862      | 20.4     | 252   | 6     | 359      | 8.5      | 947    | 22.4   | 19    | 0.5   | 62.6    | 4220  |
| Beacon     | Male             | 289   | 27.8  | 309   | 29.7  | 229      | 22       | 41    | 3.9   | 41       | 3.9      | 126    | 12.1   | 5     | 0.5   | 79.5    | 1040  |
| Non-Beacon | Male             | 512   | 14.2  | 747   | 20.8  | 787      | 21.9     | 254   | 7.1   | 371      | 10.3     | 912    | 25.4   | 13    | 0.4   | 56.9    | 3596  |
| Beacon     | Amer Ind/Alaskan | 12    | 24    | 17    | 34    | 12       | 24       | 3     | 6     | 1        | 2        | 5      | 10     | 0     | 0     | 82.0    | 50    |
| Non-Beacon | Amer Ind/Alaskan | 19    | 13.1  | 24    | 16.6  | 40       | 27.6     | 8     | 5.5   | 17       | 11.7     | 37     | 25.5   | 0     | 0     | 57.2    | 145   |
| Beacon     | Asian            | 88    | 30    | 91    | 31.1  | 53       | 18.1     | 15    | 5.1   | 9        | 3.1      | 35     | 11.9   | 2     | 0.7   | 79.2    | 293   |
| Non-Beacon | Asian            | 119   | 14.7  | 173   | 21.4  | 180      | 22.3     | 53    | 6.6   | 55       | 6.8      | 226    | 28     | 2     | 0.2   | 58.4    | 808   |
| Beacon     | African American | 25    | 17.5  | 36    | 25.2  | 36       | 25.2     | 11    | 7.7   | 8        | 5.6      | 25     | 17.5   | 2     | 1.4   | 67.8    | 143   |
| Non-Beacon | African American | 31    | 6.4   | 64    | 13.1  | 113      | 23.2     | 46    | 9.4   | 80       | 16.4     | 148    | 30.4   | 5     | 1     | 42.7    | 487   |
| Beacon     | White            | 604   | 36.3  | 529   | 31.8  | 309      | 18.6     | 44    | 2.6   | 51       | 3.1      | 121    | 7.3    | 5     | 0.3   | 86.7    | 1663  |
| Non-Beacon | White            | 968   | 19    | 1214  | 23.9  | 1038     | 20.4     | 295   | 5.8   | 444      | 8.7      | 1107   | 21.8   | 21    | 0.4   | 63.3    | 5087  |
| Beacon     | Hispanic         | 56    | 21    | 95    | 35.6  | 66       | 24.7     | 13    | 4.9   | 12       | 4.5      | 25     | 9.4    | 0     | 0     | 81.3    | 267   |
| Non-Beacon | Hispanic         | 69    | 9.8   | 153   | 21.8  | 165      | 23.5     | 60    | 8.5   | 75       | 10.7     | 177    | 25.2   | 3     | 0.4   | 55.1    | 702   |
| Beacon     | Pac Isl/Filipino | 20    | 23.8  | 25    | 29.8  | 22       | 26.2     | 5     | 6     | 3        | 3.6      | 9      | 10.7   | 0     | 0     | 79.8    | 84    |
| Non-Beacon | Pac Isl/Filipino | 27    | 10.5  | 60    | 23.4  | 49       | 19.1     | 16    | 6.3   | 24       | 9.4      | 79     | 30.9   | 1     | 0.4   | 53.1    | 256   |
| Beacon     | <18              | 4     | 14.3  | 13    | 46.4  | 7        | 25       | 1     | 3.6   | 0        | 0        | 2      | 7.1    | 1     | 3.6   | 85.7    | 28    |
| Non-Beacon | <18              | 14    | 15.9  | 22    | 25    | 17       | 19.3     | 11    | 12.5  | 3        | 3.4      | 21     | 23.9   | 0     | 0     | 60.2    | 88    |
| Beacon     | 18-20            | 273   | 27.5  | 324   | 32.6  | 236      | 23.7     | 44    | 4.4   | 29       | 2.9      | 84     | 8.5    | 4     | 0.4   | 83.8    | 994   |

|            | Group                 | A Cnt | A pct | B Cnt | B pct | C/CR Cnt | C/CR Pct | D Cnt | D Pct | F/NC Cnt | F/NC Pct | Wt Cnt | Wt Pct | I Cnt | I Pct | Success | Total |
|------------|-----------------------|-------|-------|-------|-------|----------|----------|-------|-------|----------|----------|--------|--------|-------|-------|---------|-------|
| Non-Beacon | 18-20                 | 429   | 12.2  | 786   | 22.3  | 827      | 23.5     | 293   | 8.3   | 338      | 9.6      | 836    | 23.7   | 12    | 0.3   | 58      | 3521  |
| Beacon     | 21-24                 | 177   | 28.4  | 211   | 33.8  | 127      | 20.4     | 29    | 4.6   | 22       | 3.5      | 56     | 9      | 2     | 0.3   | 82.5    | 624   |
| Non-Beacon | 21-24                 | 338   | 15.3  | 476   | 21.6  | 453      | 20.6     | 130   | 5.9   | 247      | 11.2     | 547    | 24.8   | 12    | 0.5   | 57.5    | 2203  |
| Beacon     | 25-29                 | 134   | 36.7  | 107   | 29.3  | 64       | 17.5     | 10    | 2.7   | 17       | 4.7      | 32     | 8.8    | 1     | 0.3   | 83.6    | 365   |
| Non-Beacon | 25-29                 | 214   | 22.9  | 228   | 24.4  | 181      | 19.4     | 41    | 4.4   | 71       | 7.6      | 197    | 21.1   | 2     | 0.2   | 66.7    | 934   |
| Beacon     | 30-39                 | 153   | 43    | 98    | 27.5  | 50       | 14       | 8     | 2.2   | 13       | 3.7      | 34     | 9.6    | 0     | 0     | 84.6    | 356   |
| Non-Beacon | 30-39                 | 158   | 22.4  | 173   | 24.5  | 123      | 17.4     | 16    | 2.3   | 60       | 8.5      | 170    | 24.1   | 5     | 0.7   | 64.4    | 705   |
| Beacon     | 40+                   | 96    | 39.5  | 66    | 27.2  | 40       | 16.5     | 9     | 3.7   | 7        | 2.9      | 24     | 9.9    | 1     | 0.4   | 83.1    | 243   |
| Non-Beacon | 40+                   | 119   | 32.6  | 83    | 22.7  | 48       | 13.2     | 15    | 4.1   | 11       | 3        | 88     | 24.1   | 1     | 0.3   | 68.5    | 365   |
|            |                       |       |       |       |       |          |          |       |       |          |          |        |        |       |       |         |       |
| Beacon     | Recent HS Grad        | 49    | 27.7  | 54    | 30.5  | 34       | 19.2     | 6     | 3.4   | 8        | 4.5      | 26     | 14.7   | 0     | 0     | 77.4    | 177   |
| Non-Beacon | Recent HS Grad        | 77    | 11.5  | 143   | 21.4  | 141      | 21.1     | 69    | 10.3  | 78       | 11.7     | 159    | 23.8   | 1     | 0.1   | 54.0    | 668   |
| Beacon     | Other Freshmen        | 25    | 27.2  | 23    | 25    | 27       | 29.3     | 6     | 6.5   | 6        | 6.5      | 5      | 5.4    | 0     | 0     | 81.5    | 92    |
| Non-Beacon | Other Freshmen        | 51    | 16.6  | 47    | 15.3  | 66       | 21.4     | 18    | 5.8   | 54       | 17.5     | 71     | 23.1   | 1     | 0.3   | 53.2    | 308   |
| Beacon     | Not Freshmen          | 763   | 32.6  | 742   | 31.7  | 463      | 19.8     | 89    | 3.8   | 74       | 3.2      | 201    | 8.6    | 9     | 0.4   | 84.1    | 2341  |
| Non-Beacon | Not Freshmen          | 1144  | 16.7  | 1578  | 23.1  | 1442     | 21.1     | 419   | 6.1   | 598      | 8.7      | 1630   | 23.8   | 30    | 0.4   | 60.9    | 6841  |
|            |                       |       |       |       |       |          |          |       |       |          |          |        |        |       |       |         |       |
| Beacon     | Freshmen              | 74    | 27.5  | 77    | 28.6  | 61       | 22.7     | 12    | 4.5   | 14       | 5.2      | 31     | 11.5   | 0     | 0     | 78.8    | 269   |
| Non-Beacon | Freshmen              | 128   | 13.1  | 190   | 19.5  | 207      | 21.2     | 87    | 8.9   | 132      | 13.5     | 230    | 23.6   | 2     | 0.2   | 53.8    | 976   |
| Beacon     | Not Freshmen          | 763   | 32.6  | 742   | 31.7  | 463      | 19.8     | 89    | 3.8   | 74       | 3.2      | 201    | 8.6    | 9     | 0.4   | 84.1    | 2341  |
| Non-Beacon | Not Freshmen          | 1144  | 16.7  | 1578  | 23.1  | 1442     | 21.1     | 419   | 6.1   | 598      | 8.7      | 1630   | 23.8   | 30    | 0.4   | 60.9    | 6841  |
|            |                       |       |       |       |       |          |          |       |       |          |          |        |        |       |       |         |       |
| Beacon     | English Primary Lang  | 661   | 32.3  | 641   | 31.3  | 401      | 19.6     | 82    | 4     | 77       | 3.8      | 182    | 8.9    | 5     | 0.2   | 83.1    | 2049  |
| Non-Beacon | English Primary Lang  | 1014  | 15.7  | 1476  | 22.9  | 1355     | 21       | 425   | 6.6   | 642      | 9.9      | 1520   | 23.5   | 26    | 0.4   | 59.5    | 6458  |
| Beacon     | English Not Prim Lang | 105   | 28.2  | 105   | 28.2  | 97       | 26       | 15    | 4     | 6        | 1.6      | 41     | 11     | 4     | 1.1   | 82.3    | 373   |
| Non-Beacon | English Not Prim Lang | 188   | 18.6  | 230   | 22.8  | 242      | 24       | 62    | 6.1   | 58       | 5.7      | 223    | 22.1   | 6     | 0.6   | 65.4    | 1009  |
|            |                       |       |       |       |       |          |          |       |       |          |          |        |        |       |       |         |       |
| Beacon     | TANF                  | 66    | 30.1  | 58    | 26.5  | 53       | 24.2     | 12    | 5.5   | 13       | 5.9      | 17     | 7.8    | 0     | 0     | 80.8    | 219   |
| Non-Beacon | TANF                  | 104   | 16.9  | 126   | 20.5  | 155      | 25.2     | 25    | 4.1   | 41       | 6.7      | 164    | 26.6   | 1     | 0.2   | 62.5    | 616   |
|            |                       |       |       |       |       |          |          |       |       |          |          |        |        |       |       |         |       |
| Beacon     | Not TANF              | 771   | 32.2  | 761   | 31.8  | 471      | 19.7     | 89    | 3.7   | 75       | 3.1      | 215    | 9      | 9     | 0.4   | 83.8    | 2391  |
| Non-Beacon | Not TANF              | 1168  | 16.2  | 1642  | 22.8  | 1494     | 20.7     | 481   | 6.7   | 689      | 9.6      | 1696   | 23.6   | 31    | 0.4   | 59.8    | 7201  |
|            |                       |       |       |       |       |          |          |       |       |          |          |        |        |       |       |         |       |
| Beacon     | Less Than \$7,500     | 104   | 24.3  | 138   | 32.2  | 99       | 23.1     | 19    | 4.4   | 17       | 4        | 50     | 11.7   | 1     | 0.2   | 79.7    | 428   |
| Non-Beacon | Less Than \$7,500     | 160   | 13.2  | 239   | 19.7  | 254      | 20.9     | 80    | 6.6   | 144      | 11.9     | 330    | 27.2   | 8     | 0.7   | 53.7    | 1215  |
| Beacon     | \$7,500-\$9,999       | 52    | 29.5  | 50    | 28.4  | 35       | 19.9     | 9     | 5.1   | 12       | 6.8      | 17     | 9.7    | 1     | 0.6   | 77.8    | 176   |
| Non-Beacon | \$7,500-\$9,999       | 88    | 15.1  | 126   | 21.7  | 120      | 20.7     | 40    | 6.9   | 63       | 10.8     | 142    | 24.4   | 2     | 0.3   | 57.5    | 581   |
| Beacon     | \$10,000-\$14,999     | 65    | 33.7  | 69    | 35.8  | 29       | 15       | 5     | 2.6   | 8        | 4.1      | 17     | 8.8    | 0     | 0     | 84.5    | 193   |
| Non-Beacon | \$10,000-\$14,999     | 114   | 15.3  | 173   | 23.2  | 161      | 21.6     | 38    | 5.1   | 71       | 9.5      | 185    | 24.8   | 4     | 0.5   | 60.1    | 746   |
| Beacon     | \$15,000-\$19,999     | 55    | 41    | 37    | 27.6  | 26       | 19.4     | 3     | 2.2   | 2        | 1.5      | 11     | 8.2    | 0     | 0     | 88.1    | 134   |
| Non-Beacon | \$15,000-\$19,999     | 80    | 17.5  | 94    | 20.6  | 97       | 21.3     | 34    | 7.5   | 38       | 8.3      | 109    | 23.9   | 4     | 0.9   | 59.4    | 456   |
| Beacon     | \$20,000-\$24,999     | 39    | 29.5  | 42    | 31.8  | 27       | 20.5     | 3     | 2.3   | 5        | 3.8      | 16     | 12.1   | 0     | 0     | 81.8    | 132   |
| Non-Beacon | \$20,000-\$24,999     | 81    | 17    | 120   | 25.2  | 97       | 20.3     | 34    | 7.1   | 42       | 8.8      | 99     | 20.8   | 4     | 0.8   | 62.5    | 477   |
| Beacon     | \$25,000-\$29,999     | 32    | 28.8  | 30    | 27    | 26       | 23.4     | 7     | 6.3   | 2        | 1.8      | 12     | 10.8   | 2     | 1.8   | 79.3    | 111   |
| Non-Beacon | \$25,000-\$29,999     | 54    | 14    | 102   | 26.4  | 82       | 21.2     | 28    | 7.3   | 30       | 7.8      | 90     | 23.3   | 0     | 0     | 61.7    | 386   |
| Beacon     | \$30,000-\$34,999     | 39    | 32.5  | 31    | 25.8  | 23       | 19.2     | 11    | 9.2   | 4        | 3.3      | 12     | 10     | 0     | 0     | 77.5    | 120   |

|            | <b>Group</b>      | <b>A<br/>Cnt</b> | <b>A<br/>pct</b> | <b>B<br/>Cnt</b> | <b>B<br/>pct</b> | <b>C/CR<br/>Cnt t</b> | <b>C/CR<br/>Pct</b> | <b>D<br/>Cnt</b> | <b>D<br/>Pct</b> | <b>F/NC<br/>Cnt</b> | <b>F/NC<br/>Pct</b> | <b>Wt<br/>Cnt</b> | <b>Wt<br/>Pct</b> | <b>I<br/>Cnt</b> | <b>I<br/>Pct</b> | <b>Success</b> | <b>Total</b> |
|------------|-------------------|------------------|------------------|------------------|------------------|-----------------------|---------------------|------------------|------------------|---------------------|---------------------|-------------------|-------------------|------------------|------------------|----------------|--------------|
| Non-Beacon | \$30,000-\$34,999 | 70               | 18               | 84               | 21.6             | 88                    | 22.6                | 31               | 8                | 31                  | 8                   | 84                | 21.6              | 1                | 0.3              | 62.2           | 389          |
| Beacon     | \$35,000-\$39,999 | 26               | 25               | 34               | 32.7             | 24                    | 23.1                | 4                | 3.8              | 4                   | 3.8                 | 10                | 9.6               | 2                | 1.9              | 80.8           | 104          |
| Non-Beacon | \$35,000-\$39,999 | 64               | 18.4             | 79               | 22.7             | 80                    | 23                  | 23               | 6.6              | 32                  | 9.2                 | 68                | 19.5              | 2                | 0.6              | 64.1           | 348          |
| Beacon     | \$40,000 or More  | 217              | 37.2             | 182              | 31.2             | 111                   | 19                  | 15               | 2.6              | 11                  | 1.9                 | 45                | 7.7               | 2                | 0.3              | 87.5           | 583          |
| Non-Beacon | \$40,000 or More  | 355              | 18.3             | 503              | 26               | 430                   | 22.2                | 127              | 6.6              | 150                 | 7.8                 | 363               | 18.8              | 7                | 0.4              | 66.6           | 1935         |
|            |                   |                  |                  |                  |                  |                       |                     |                  |                  |                     |                     |                   |                   |                  |                  |                |              |
| Beacon     | Assessed          | 530              | 30.8             | 548              | 31.8             | 349                   | 20.3                | 73               | 4.2              | 60                  | 3.5                 | 157               | 9.1               | 6                | 0.3              | 82.8           | 1723         |
| Non-Beacon | Assessed          | 852              | 15.9             | 1212             | 22.6             | 1156                  | 21.6                | 375              | 7                | 508                 | 9.5                 | 1230              | 23                | 26               | 0.5              | 60.1           | 5359         |
| Beacon     | Not Assessed      | 307              | 34.6             | 271              | 30.6             | 175                   | 19.7                | 28               | 3.2              | 28                  | 3.2                 | 75                | 8.5               | 3                | 0.3              | 84.9           | 887          |
| Non-Beacon | Not Assessed      | 420              | 17.1             | 556              | 22.6             | 493                   | 20.1                | 131              | 5.3              | 222                 | 9                   | 630               | 25.6              | 6                | 0.2              | 59.8           | 2458         |