# De Anza College Office of Institutional Research and Planning 

To: Math Department
From: Mallory Newell, De Anza Researcher
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Subject: Enrollment in Other GE Courses after Passing Transfer-Level Math

This analysis looks at students who are passed Math10 (Statistics) or MATH41/31 (Precalculus) in the fall term and the courses in which they were enrolled during the fall, winter and spring quarters of the same academic year. The analysis provides a three-year trend, pre and post implementation of AB 705. The analysis also includes the success rates in the courses in which students enrolled at the same time or after passing the math course, within the same academic year.

## Overall Findings for Statistics

- The findings suggest that students are enrolling in a higher number of GE courses after having completing MATH10, when compared to prior terms, even with a continued enrollment decline at the college overall.
- When students complete MATH10, they enroll at a higher rate in subsequent Math courses including MATH1A, 1B and 1C and success rates increased in these courses even with the additional enrollments.
- When students complete MATH10 they also enroll at a higher rate in EWRT courses including EWRT1A and EWRT002.

Of the top 32 courses in which students enrolled, who passed MATH10 or MATH10H, over the past three years:

- Enrollment into MATH1A increased by $92 \%$, while success rates increased by $17 \%$ from 76\% to 89\%.
- Enrollment into MATH001B increased by $41 \%$, while success rates increased $16 \%$ from 79\% to 92\%.
- Enrollment into MATH001C increased by $16 \%$, while success rates increased $15 \%$ from $81 \%$ to $93 \%$.
- Enrollment into EWRT01A saw an increase of $25 \%$, while success rates decreased $4 \%$ from 90\% to 86\%.
- Enrollment into EWRT002 saw an increase of $13 \%$, while success rates increased 2\% from 90\% to 92\%.
- Enrollment into ANTH002 saw an increase of $96 \%$ and success rates increased $1 \%$, from 90\% to 91\%.
- Enrollment into ARTS1A increased by $62 \%$ and success rates remained unchanged at $90 \%$.

Table. I. Students who Passed Statistics
Enrollment
Success

| Fall | Fall | Fall |  | Fall | Fall | Fall |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2018- | $2019-$ | $2020-$ |  | $2018-2019-$ | $2020-$ |  |  |
| Spring | Spring | Spring | $\%$ | Spring | Spring | Spring |  |
| 2019 | 2020 | 2021 | Trend Change | 2019 | 2020 | 2021 | Trend Change |


| ACCT | D001A | 154 | 160 | 161 | 5\% | 79\% | 82\% | 91\% | 15\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ACCT | D001B | 133 | 115 | 124 | -7\% | 83\% | 90\% | 95\% | 14\% |
| ACCT | D00IC | 103 | 68 | 93 | -10\% | 89\% | 96\% | 94\% | 6\% |
| ANTH | D001. | 104 | 121 | 117 | 13\% | 94\% | 92\% | 92\% | -2\% |
| ANTH | D002. | 49 | 84 | 96 | 96\% | 90\% | 92\% | 91\% | 1\% |
| ARTS | D001A | 50 | 70 | 81 | 62\% | 90\% | 90\% | 90\% | 0\% |
| ASTR | D004. | 146 | 124 | 117 | -20\% | 88\% | 84\% | 82\% | -7\% |
| BIOL | Dolo. | 85 | 91 | 127 | 49\% | 85\% | 86\% | 91\% | 7\% |
| BUS | Dolo. | 163 | 158 | 163 | 0\% | 87\% | 89\% | 94\% | 8\% |
| BUS | D018. | 105 | 101 | 100 | -5\% | 90\% | 90\% | 94\% | 4\% |
| CIS | D003. | 49 | 40 | 47 | -4\% | 92\% | 95\% | 96\% | 4\% |
| COMM | D001. | 240 | 291 | 302 | 26\% | 91\% | 91\% | 92\% | 1\% |
| COMM | Dolo. | 99 | 113 | 142 | 43\% | 91\% | 97\% | 95\% | 4\% |
| ECON | D001. | 168 | 190 | 205 | 22\% | 89\% | 92\% | 91\% | 2\% |
| ECON | D002. | 152 | 162 | 185 | 22\% | 94\% | 91\% | 92\% | -2\% |
| ESCI | D001. | 91 | 115 | 102 | 12\% | 95\% | 94\% | 96\% | 1\% |
| EWRT | D001A | 449 | 522 | 560 | 25\% | 90\% | 91\% | 86\% | -4\% |
| EWRT | D001B | 39 | 32 | 39 | 0\% | 90\% | 88\% | 90\% | 0\% |
| EWRT | D002. | 375 | 397 | 425 | 13\% | 90\% | 89\% | 92\% | 2\% |
| HIST | D017B | 62 | 71 | 61 | -2\% | 97\% | 93\% | 93\% | -4\% |
| HIST | D017C | 75 | 84 | 74 | -1\% | 83\% | 82\% | 88\% | 6\% |
| HUMI | D001. | 260 | 258 | 260 | 0\% | 90\% | 92\% | 90\% | 0\% |
| MATH | D031/4I. | 123 | 77 | 86 | -30\% | 69\% | 78\% | 73\% | 6\% |
| MATH | D032/42. | 56 | 42 | 45 | -20\% | 73\% | 90\% | 82\% | 12\% |
| MATH | D001A | 51 | 139 | 98 | 92\% | 76\% | 81\% | 89\% | 17\% |
| MATH | D001B | 56 | 96 | 79 | 41\% | 79\% | 86\% | 92\% | 16\% |
| MATH | D001C | 37 | 37 | 43 | 16\% | 81\% | 84\% | 93\% | 15\% |
| NUTR | D010. | 48 | 72 | 47 | -2\% | 90\% | 93\% | 91\% | 1\% |
| PHIL | D001. | 64 | 81 | 96 | 50\% | 91\% | 84\% | 84\% | -8\% |
| POLI | D001. | 174 | 167 | 159 | -9\% | 90\% | 86\% | 84\% | -7\% |
| PSYC | D001. | 247 | 278 | 306 | 24\% | 90\% | 91\% | 93\% | 3\% |
| SOC | D001. | 112 | 132 | 130 | 16\% | 94\% | 94\% | 91\% | -3\% |

Legend:
= Increase or Flat
Includes students who passed Math 10 in the fall term and their enrollment and success in all other courses in

## Overall Findings for Precalculus:

- The findings are more varied for MATH41 than MATH10 students, in that students enrolling in a GE courses after having completing MATH41, is split between increases in some courses and decreases in others.
- However, when students complete MATH41, they enrolled at a higher rate in MATH1A and success rates increased in this course even with the additional enrollments.
- When students complete MATH41 they also enroll at a higher rate in EWRT1A, though success rates decreased for MATH41 students in EWRT1A.

Of the top 28 courses in which students enrolled, who passed MATH41 or MATH31, over the past three years:

- Enrollment into MATH1A increased by $794 \%$, from 17 to 152 , while success rates increased by $21 \%$ from $71 \%$ to $86 \%$.
- Enrollment into MATH32/42 decreased by 30\%, though success rates increased 9\% from $76 \%$ to $83 \%$.
- Enrollment into EWRT01A saw an increase of 5\%, while success rates decreased $10 \%$ from 92\% to 83\%.
- Enrollment into EWRT002 saw a decrease of $19 \%$, and success rates decreased $2 \%$ from 87\% to 85\%.
- Enrollment into COMM001 saw an increase of $22 \%$, though success rates decreased $10 \%$, from $97 \%$ to $87 \%$.
- Enrollment into CIS22B increased by $20 \%$ and success rates increased by $17 \%$ from $63 \%$ to 74\%.

Table. 2. Students who Passed Precalculus

|  |  | Enrollment |  |  |  |  | Success |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Fall 2018Spring 2019 | $\begin{gathered} \hline \text { Fall } \\ 2019- \\ \text { Spring } \\ 2020 \end{gathered}$ | $\begin{gathered} \text { Fall } \\ 2020- \\ \text { Spring } \\ 2021 \end{gathered}$ | Trend | \% <br> Change | Fall 2018Spring 2019 | Fall 2019- <br> Spring $2020$ | $\begin{gathered} \text { Fall } \\ 2020- \\ \text { Spring } \\ 2021 \end{gathered}$ | Trend | \% Change |
| ACCT | D001A | 61 | 48 | 57 |  | -7\% | 85\% | 85\% | 81\% |  | -5\% |
| ACCT | D001B | 37 | 32 | 28 |  | -24\% | 92\% | 91\% | 93\% |  | 1\% |
| ANTH | D001. | 39 | 35 | 32 |  | -18\% | 100\% | 91\% | 91\% |  | -9\% |
| ARTS | D001A | 24 | 32 | 26 |  | 8\% | 83\% | 81\% | 96\% |  | 16\% |
| ASTR | D004. | 56 | 39 | 30 |  | -46\% | 93\% | 85\% | 83\% |  | -11\% |
| BIOL | Dolo. | 35 | 44 | 27 |  | -23\% | 89\% | 95\% | 74\% |  | -17\% |
| BUS | Dolo. | 52 | 48 | 52 |  | 0\% | 92\% | 96\% | 87\% |  | -5\% |
| BUS | D018. | 33 | 23 | 22 |  | -33\% | 100\% | 100\% | 91\% |  | -9\% |
| CHEM | D001A | 76 | 45 | 37 |  | -51\% | 76\% | 78\% | 65\% |  | -14\% |
| CHEM | D025. | 84 | 74 | 49 |  | -42\% | 85\% | 80\% | 82\% |  | -4\% |
| CIS | D022A | 88 | 82 | 88 |  | 0\% | 85\% | 78\% | 72\% |  | -15\% |
| CIS | D022B | 35 | 36 | 42 | , | 20\% | 63\% | 58\% | 74\% | - | 17\% |
| COMM | D001. | 73 | 67 | 89 |  | 22\% | 97\% | 96\% | 87\% |  | -10\% |
| COMM | Dolo. | 43 | 29 | 45 |  | 5\% | 93\% | 90\% | 93\% |  | 0\% |
| ECON | D001. | 96 | 69 | 65 |  | -32\% | 93\% | 93\% | 94\% | , | 1\% |
| ECON | D002. | 69 | 55 | 47 |  | -32\% | 91\% | 95\% | 94\% |  | 3\% |
| ESCI | D001. | 37 | 36 | 34 |  | -8\% | 97\% | 83\% | 97\% |  | 0\% |
| EWRT | D001A | 238 | 224 | 251 |  | 5\% | 92\% | 91\% | 83\% |  | -10\% |
| EWRT | D002. | 201 | 176 | 163 |  | -19\% | 87\% | 91\% | 85\% |  | -2\% |
| HIST | D017C | 25 | 29 | 26 |  | 4\% | 80\% | 93\% | 81\% |  | 1\% |
| HUMI | D001. | 110 | 94 | 92 |  | -16\% | 88\% | 93\% | 85\% |  | -3\% |
| MATH | D032/42. | 408 | 297 | 285 |  | -30\% | 76\% | 85\% | 83\% |  | 9\% |
| MATH | D001A | 17 | 35 | 152 | - | 794\% | 71\% | 94\% | 86\% | $\bigcirc$ | 21\% |
| NUTR | D010. | 20 | 13 | 12 |  | -40\% | 85\% | 100\% | 83\% |  | -2\% |
| PHIL | D001. | 27 | 16 | 18 |  | -33\% | 78\% | 88\% | 78\% | - | 0\% |
| POLI | D001. | 50 | 58 | 43 | - | -14\% | 90\% | 79\% | 88\% |  | -2\% |
| PSYC | D001. | 92 | 78 | 71 |  | -23\% | 93\% | 91\% | 86\% |  | -8\% |
| SOC | D001. | 31 | 23 | 24 |  | -23\% | 84\% | 83\% | 88\% | $工$ | 5\% |

Legend: $\quad=$ Increase or Flat
Includes students who passed Math4I/3I in the fall term and their enrollment and success in all other courses in fall, winter and spring of the same year.

