## ADDENDUM TO II. HISTORICAL GRADE DISTRIBUTION DATA

As noted in the preceding material, one option for grading on a curve is to use percentage guidelines to determine how many students receive a fixed letter grade. In connection with this, it is natural to ask about the grade distributions for first year mathematics courses at UC Riverside.

When deciding on percentages of various letter grades to assign, the average grade distributions from the past few years are often used to provide guidelines; since the types of students taking a given class can vary dramatically over the three quarters in the academic year, these average grades are often computed separately for the various quarters. The following four charts summarize the percentages of the various letter grades that have been given in Mathematics 5, 9A, 9B and 9C over the past five or six years:

|  | A | B | C | D | F | other |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| M5F-avg. | 15 | 37 | 29 | 11 | 5 | 3 |
| st. dev. | 4 | 2.5 | 4 | 2 | 1.5 | 1.5 |
| M5W-avg. | 16 | 29 | 24 | 14 | 11 | 6 |
| st. dev. | 5 | 7 | 2 | 7.5 | 3 | 1 |
| M5S-avg. | 13.5 | 25 | 23.5 | 13 | 15 | 10 |
| st. dev. | 2 | 4.5 | 5 | 4 | 4 | 2 |


|  | A | B | C | D | F | other |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| M9AF-avg. | 25 | 28 | 25 | 9 | 12 | 1 |
| st. dev. | 4 | 6 | 6 | 2 | 3 | 3.5 |
| M9AW-avg. | 19 | 26 | 27 | 11 | 12 | 5 |
| st. dev. | 3.5 | 3 | 2 | 2 | 3 | 1 |
| M9AS-avg. | 10 | 27 | 30 | 14 | 13 | 6 |
| st. dev. | 3.5 | 6 | 5 | 3 | 4 | 2 |


|  | A | B | C | D | F | other |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| M9BF-avg. | 27 | 23 | 18 | 14 | 14.5 | 3.5 |
| st. dev. | 6 | 5 | 3 | 3 | 3 | 1 |
| M9BW-avg. | 22 | 29 | 24 | 9 | 11 | 5 |
| st. dev. | 2.5 | 4.5 | 2.5 | 0.5 | 4 | 1 |
| M9BS-avg. | 15 | 28 | 26 | 13 | 13.5 | 4.5 |
| st. dev. | 3 | 8 | 5 | 4 | 5 | 2 |


|  | A | B | C | D | F | other |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| M9CF-avg. | 18 | 25 | 28 | 11 | 13 | 5 |
| st. dev. | 6 | 5 | 7 | 7 | 6 | 1 |
| M9CW-avg. | 27 | 27 | 20.5 | 8 | 12 | 5.5 |
| st. dev. | 6 | 5 | 3 | 3 | 3 | 4 |
| M9CS-avg. | 25 | 33 | 19 | 9 | 9 | 5 |
| st. dev. | 6.5 | 4 | 6 | 2 | 2 | 0.5 |

Since these grades include all retroactive changes and repeats, it would be best for any grade distribution of this type to be a bit more strict than the preceding table would indicate. In any case, since performance varies from one year to another, anything within one standard deviation of the given values or five per cent is probably acceptable.

