# Profile of the July 1999 UKC CS Graduates 

Janet Carter

## Contents

General Entry Qualifications
A-level Entrants ..... 2
Comparing A-level and non A-level Entrants ..... 3
Does A-level Mathematics make a Difference?
With/without Mathematics ..... 5
Trends
Correlation between Part I and Part IIa ..... 6
Correlation between Part IIa and Part IIb ..... 6
Correlation between Part I and Part IIb ..... 7
Mean performance differences ..... 7
The Distribution of Marks ..... 8

## General Entry Qualifications

The A-level Entrants

Does a higher A-level point score mean a higher part I result?


The product moment correlation coefficient between A-level points and part I result is 0.55

Does a higher A-level point score mean a better final result?


The product moment correlation coefficient between A-level points and final degree result is 0.32

## Comparing A-level and non A-level entrants

$69 \%$ of the cohort entered with traditional A-level qualifications.



## Statistical Comparison

|  | Part I |  | Final |  |
| :--- | ---: | ---: | ---: | ---: |
|  |  | sd | \|eana | sd |
|  |  |  |  |  |
| With A-levels | 55.6 | 10.8 | 52.3 | 10.8 |
| Without A-levels | 55.3 | 9.5 | 52.1 | 8.3 |

There is no evidence to suggest a statistically significant difference between the mean scores of the A-level and non A-level entrants at Part $I(z=0.04)$ or in final degree result $(z=0.01)$.

## Does A-level Mathematics make a Difference?



|  | part I |  | final |  |
| :--- | ---: | ---: | ---: | ---: |
|  | mean | sd | mean | sd |
| with | 55.5 | 10.7 | 53.7 | 10.7 |
| without | 55.5 | 10.0 | 50.7 | 9.2 |

There is insufficient evidence to suggest that there is a significant difference (at the $5 \%$ level) between either part I ( $\mathrm{z}=0.01$ ) or final results $(\mathrm{z}=1.17)$ between the students with and without A-level mathematics.


## Trends

Does Part I predict Part Ila?


Correlation coefficient $=0.67$
The least squares regression line of Part IIa mark on Part I mark is $y=0.9 x+0.4$
Does Part lla predict Part llb?


Correlation coefficient $=0.74$
The least squares regression line of Part IIb mark on Part IIa mark is $y=1.1 x+0.9$

Does Part I predict Part llb?


Correlation coefficient $=0.53$
The least squares regression line of Part IIb mark on Part I mark is $y=1.0 x+0.9$, but this isn't particularly useful with such a low correlation.

## Mean performance differences

The table shows the mean and standard deviation of the year on year differences between marks. The magnitude of the standard deviation in relation to the mean suggests that the least squares regression line cannot be used as a predictor for the achievements of an individual student.

|  | mean | sd |  |
| :--- | :--- | :---: | :---: |
| part I - part IIa | -6.2 | 8.5 |  |
| part Ila - part IIb | 6.4 | 7.6 |  |
| part I | - part IIb | 0.2 | 10.1 |
| part I | - final | -3.0 | 8.5 |

## Distribution of marks

|  |  | Final result |  |  |  |  |
| :---: | :--- | :---: | :---: | :---: | :---: | :---: |
|  |  | Pass | III | Ilii | III | I |
| Part I | Iail | 1 | 2 | 1 |  |  |
|  | Pass | 2 | 18 | 11 | 5 | 5 |
|  | Merit |  |  | 6 | 4 |  |
|  | Distinction |  |  | 3 | 2 | 1 |

The distribution of marks in this table suggests that many students take full advantage of the fact that they need simply to pass part I to be allowed to proceed to part II, and this implies that past results are no predictor of future performance.

All part I marks were obtained at the June 1997 examinations. Any student who failed must have subsequently passed a re-sit examination to be allowed to proceed to part II.

## Part I grade boundaries

| Pass | $40 \%$ |
| :--- | :--- |
| Merit | $60 \%$ |
| Distinction | $70 \%$ |

## Final result grade boundaries

| Pass | $35 \%$ |
| :--- | :--- |
| III | $40 \%$ |
| IIii | $50 \%$ |
| IIi | $60 \%$ |
| I | $70 \%$ |

