Subhash Chandra Dixit and Another Vs U.P. Public Service Commission and Another

Court: Allahabad High Court

Date of Decision: Oct. 3, 2002

Acts Referred: Uttar Pradesh Public Service Commission (Procedure of Conduct and Business) Rules, 1976 â€" Rule 51
Uttar Pradesh State Public Service Commission (Regulation of Procedure) Act, 1985 â€" Section 11

Citation: (2003) 2 AWC 1403 : (2003) 1 UPLBEC 528

Hon'ble Judges: N.K. Mehrotra, J; G.P. Mathur, J

Bench: Division Bench

Advocate: Party in Person, Yogesh Agrawal, S.C. Budhwar and Shiv Nath Singh and Vikram Bahadur Yadav in person, for the Appellant; B.N. Singh, C.K. Shukla, Pushpendra Singh and Sudhir Agrawal, S.C., for the Respondent

Final Decision: Allowed

Judgement

G.P. Mathur, J.
This petition under Article 226 of the Constitution has been filed for quashing the result of the Civil Judge (Jr. Div.)

Examination, 2000, which was declared on 25.9.2001. A further prayer has been made that the U. P. Public Service Commission be directed to

declare the result of the aforesaid examination on the basis of actual marks secured by the candidates without applying the formula of scaling or in

the alternative the scaling system should be applied to the marks awarded in interview and the result be declared thereafter.

2. The U. P. Public Service Commission (for short Commission) issued an advertisement for making selection on the post of Civil Judge (Jr. Div.)

and it was notified that the last date for submission of application form for Civil Judge (Jr. Div.) Examination, 2000, was 30th November, 2000.

The petitioners submitted their application forms and appeared in the written examination, which was held from 4th to 6th August, 2000. The result

of the written examination was declared on 6th January, 2001 in which they qualified and thereafter they appeared in the interview conducted by

the Commission. The final result of the examination was declared on 25th September, 2001. The petitioners were not selected, as their names did

not appear in the merit list. It is averred in the writ petition that the Commission applied a system of scaling to scale the marks awarded by the

examiners who examined the copies. In this process of scaling, the marks actually awarded by the examiners who examined the copies was

completely changed, high marks of bright candidates were reduced and the low marks of poor and mediocre candidates were enhanced. The main

ground for assailing the result of the examination is that the same has not been prepared on the basis of actual marks awarded by the examiners but

on altogether different marks which had been arrived at by a process of scaling.

3. In the counter-affidavit filed on behalf of Commission (sworn on 23.11.2001), it is averred that there had been constant pressure on the

Commission to introduce the system of scaling as was being done by Union Public Service Commission. There are many subjects and large

number of examiners which results in great deal of variation of standard in evaluating the answer books. In order to reduce the aforesaid variation

in evaluation by different examiners, the scaling system was applied using the appropriate statistical techniques and the system is uniformly applied

to all the candidates appearing in the examination. In the supplementary counter-affidavit (sworn on 31.7.2002), it is averred that before

Introducing the system of scaling, an indepth study was done by a Committee consisting of three professors, who made their recommendation on

2nd September, 1996. The Commission in its meeting held on 7th September, 1996, approved the recommendation and resolved to apply the

formula of scaling and thereafter it was made applicable to P.C.S. (Preliminary) Examination, 1996 and also in P.C.S. (Main) Examination.

Thereafter, the Commission in its meeting held on 30th March, 1999 decided to apply the scaling system in all the examinations.

4. Before adverting to the scaling formula and the challenge made thereto, it will be convenient to have an idea as to how the actual marks secured

by the candidates have been effected by scaling. On the direction of the Court, learned counsel for the Commission supplied the details of the

marks secured by the candidates who are amongst the first hundred in the merit list. Table "A" given below shows that actual marks, scaled marks,

addition/subtraction in marks and the percentage of enhancement/ subtraction to the marks actually secured by some of the candidates.

TABLE A

Actual and Scaled Marks

(Maximum Marks - 850)

S. No.	Roll No.	Actual Marks	Scaled Mark	Difference in Mark	Percentage
1	005573	461	610	149	32.32

2 004122 530 583 53 10.00

3 003368 546 592 46 8.42

4 002101 441 574 133 30.16

5 006161 531 601 7O 13.18

6 001677 437 568 131 29.98

7 003744 517 571 54 10.44

8 000632 508 574 66 12.99

9 005620 441 581 140 31.75

10 003495 517 563 46 8.90

11 O01766 439 575 136 30.98

12 003792 479 562 83 17.33

13 001758 434 563 129 29.72

14 005228 579 552 -27 -4.66

15 005919 430 574 144 33.49

16 O03719 532 557 25 4.70

17 002192 426 547 121 28.40

18 005778 379 549 170 44.85

19 001709 428 555 127 29.67

20 005559 377 545 168 44.56

21 002821 484 542 58 11.98

22 000706 469 548 79 16.84

23 005539 430 544 114 26.51

24 005741 380 540 160 42.11

25 005739 375 530 155 41.33

26 005040 525 529 4 0.76

27 004405 402 528 126 31.34

28 004721 402 546 144 35.82

29 005213 545 533 -12 -2.20

30 002853 484 526 42 8.68

31 005747 413 578 165 39.95

32 005616 400 565 165 41.25

33 005972 442 584 142 32.13

34 007711 503 581 78 15.51

35 002154 425 553 128 30. 12

36 001440 459 544 85 18.52

37 004252 473 549 76 16.07

38 004696 424 548 124 29.25

39 003983 481 557 76 15.80

40 000573 454 543 89 19.60

41 000893 483 571 88 18.22

42 006551 467 568 101 21.63

43 001006 478 563 85 17.78

44 000143 475 547 72 15.16

45 001601 426 531 105 24.65

46 004339 444 543 99 22.30

47 006608 438 536 98 22.37

48 003826 450 529 79 17.56

49 005522 411 529 118 28.71

50 006837 458 534 76 16.59

51 001341 447 542 95 21.25

52 001942 385 530 145 37.66

53 004156 445 529 84 18.88

54 006628 467 536 69 14.78

55 005782 379 549 170 44.85

56 004529 429 565 136 31.70

57 005527 426 539 113 26.53

58 001278 443 542 99 22.35

59 000774 436 536 100 22.94

60 003609 462 523 61 13.20

(-) sign denotes reduction in marks

5. Some glaring features of the result of scaling are as under :

(i) With regard to serial Nos. 1, 9, 18. 20. 24, 25, 31, 32 and 55, the marks have been enhanced by 149, 140, 170, 168, 160, 155, 165, 165

and 170 respectively and the percentage of enhancement to the actual marks secured varies from 31.75 per cent to 44.85 per cent.

(ii) The marks actually secured by the candidates at serial Nos. 14 and 29 have been reduced by 27 and 12 respectively.

(iii) The marks of candidate at serial No. 26 have been enhanced by 4 only.

(iv) Though the candidates at serial Nos. 18 and 20 had actually secured 379 and 377 marks respectively but as a result of scaling, their marks

have been enhanced to 549 and 545. The candidate at serial No. 14 had secured 579 marks which after scaling has been reduced to 552 marks.

This candidate had secured 200 marks more than the candidate at serial No. 18 but after scaling the difference has been reduced to 3 marks only.

(v) The candidate at serial No. 20 had secured 377 marks which have been scaled to 545. The candidate at serial No. 14 had actually secured

579 marks i.e., 202 marks more than this candidate but after scaling he has been given 552 marks and the difference has been reduced to just 7

marks.

(vi) The candidate at serial No. 19 _____had actually secured 428 marks which have been scaled to 555 marks. The candidate at serial No. 26

had secured 525 marks which have been scaled to 529 marks. Though he had secured 97 marks more than the candidate at serial No. 19 but

after scaling his marks are 26 less than him.

(vii) The candidate at serial No. 14 had secured 579 marks which were scaled to 552, The candidate at serial No. 1 had secured 461 marks

which were scaled to 610. Though, serial No. 14 had taken a lead of 118 marks over serial No. 1 but after scaling the position has reversed and

serial No. 1 has taken a lead of 58 marks over serial No. 14. Similar is the position of serial No. 15. His 430 marks became 574 after scaling.

Though serial No. 14 had taken a lead of 149 marks over him but after scaling the position has changed and serial No. 15 is leading by 22 marks.

6. The Language II paper which is of 40 marks requires a candidate to transliterate from Urdu to Hindi or from Hindi to Urdu. Table "B" below

shows the actual marks awarded and the scaled marks given to some of the candidates in the aforesaid paper.

TABLE B

BLanguage II Paper

(Maximum Marks - 40)

S.No. Roll No. Actual Seated Difference in

Marks Mark Mark

1 007705 25 25 0

2 005573 0 18 18

3 003230 1 18 17

4 002495 31 29 -2

5 004122 31 27 -4

6 003368 25 26 1

7 005747 21 27 6

8 000055 4 19 15

9 001677 10 22 12

10 003744 0 17 17

1 1 000632 29 28 -1

12 001121 23 26 3

13 003792 0 17 17

14 006791 27 26 -1

15 001039 35 30 -5

16 005616 27 30 3

17 005228 28 26 -2

18 004700 30 27 -3

19 003719 37 29 -8

20 002154 13 23 10

21 005778 3 19 16

22 001440 31 31 0

23 006171 34 30 -4

24 003101 19 24 5

25 003983 6 19 13

26 002821 2 18 16

27 000706 6 20 14

28 006551 13 21 8

29 000098 23 24 1

30 005741 16 25 9

31 006161 0 18 18

32 001766 10 22 12

33 001191 0 18 18

34 002322 8 21 13

35 005919 23 28 5

36 005972 0 18 18

37 005444 0 18 18

38 003194 0 18 18

39 004252 0 17 17

40 005559 0 18 18

41 007158 0 17 17

42 002207 28 30 2

43 000573 0 17 17

44 000893 30 28 -2

45 007075 27 26 -1

46 001006 0 18 18

47 000098 23 24 1

48 000143 7 19 12

49 003420 0 18 18

50 006885 32 27 -5

51 004331 9 20 11

52 006176 28 28 0

53 001601 0 18 18

54 004339 35 29 -6

55 006608 0 17 17

56 005739 7 21 14

57 007019 37 29 -8

58 O03826 0 17 17

59 005040 0 17 17

60 001341 0 18 18

61 004405 0 17 17

62 004721 0 17 17

63 007635 11 21 10

64 001942 0 18 18

65 004156 0 17 17

66 006628 25 25 0

67 005782 0 18 18

68 000256 28 26 -2

69 005213 33 27 -6

70 001290 30 30 0

71 003629 9 20 11

72 001278 8 21 13

73 003530 6 20 14

74 000774 0 18 18

75 003609 0 17 17

76 003141 5 20 15

(-) sign denotes reduction in marks

7. Some glaring features of the result of scaling are as under :

(i) Many candidates had secured only zero marks in this paper. However, after scaling the marks of majority of them have been enhanced to 18

while for some it has been enhanced to

17 The candidates at serial Nos. 8, 25 and 48 had actually secured 4, 8 and 7 marks respectively but they have all been awarded 19 marks after

scaling. Thus, the candidates who secured zero and the candidate who secured 7 marks have been put at par.

TABLE C Actual Marks and Scaled Marks

Law

I Paper (Maximum Marks - 200)

S. No.	Roll No.	Actual Marks	Scaled Marks	Difference in Marks	Percentage
1	005573	88	133	45	51.14
2	005747	118	172	54	45.76
3	002101	61	132	71	116.39
4	001677	60	130	70	116.67
5	005620	85	130	45	52.94
6	001766	61	132	71	116.39
7	005616	109	160	51	46.79
8	001758	50	114	64	128.00
9	005919	85	130	45	52.94
10	005972	116	169	53	45.69
1 1	002192	68	143	75	110.29

12 002154 55 122 67 121.82

13 005778 90 136 46 51.11

14 001709 57 125 68 119.30

15 004696 86 121 35 40.70

16 005539 79 122 43 54.43

17 005741 84 128 44 52.38

18 007019 109 139 30 27.52

19 001942 52 117 65 125.00

20 000774 105 126 21 20.00

21 003141 111 127 16 14.41

Some glaring features of the result of scaling are as under :

(i) The marks of candidates at serial Nos. 3, 4, 6, 7, 11, 12, 14 and 19 have been increased by over 100 per cent.

(ii) The candidates at serial Nos. 3, 4, 6, 12 and 14 had secured 61. 60, 61, 55 and 57 marks respectively but they have been enhanced by 71,

70, 71, 67 and 68 marks. Thus, the marks added after scaling are more than the marks originally secured by them.

(iii) The candidates at serial Nos. 20 and 21 who had secured 105 and 1 12 marks respectively have gained by only 21 and 16 marks but at the

same time the candidates at serial Nos. 2, 7 and 10 who had secured 118, 109 and 116 marks respectively have gained by 54, 51 and 53 marks.

8. In the supplementary counter-affidavit, it is averred that the formula applied for scaling the marks is that given in the book Scaling Techniques

written by V. Natarajan and K. Gunasekaran. The precise formula used is as under :

Z = Assumed Mean +

(x-M)/S.D. Assumed S.D.

Z is the Scaled Score.

X is the Raw Mark or actual marks awarded by examiner.

M is the Mean of Raw Marks of the group/subject (as the case may be)

S.D. is the Standard Deviation of Raw Marks of the group/subject (as the case may be).

Assumed Mean will be taken as half of the maximum marks of the group/subject.

Assumed S.D. will be taken as 1/5th of the assumed mean.

If after scaling the scaled marks are less than zero, the candidate will be given zero mark in that subject.

If after scaling the scaled marks exceed the maximum mark, the candidate will be given the maximum marks in that subject.

In the preliminary examination scaling will be done at the stage of optional paper and in the mains examination scaling will be done of all the papers

at examiner''s level.

The merit will be determined after adding the scaled marks in each subject.

If the scaled score is in decimal, the same will be converted into whole number according to practice.

9. The standard deviation is calculated in the following manner :

If five candidates secure 20, 25, 32, 15 and 28 marks :

Mean marks of the group

$$= \frac{20+25+32+15+28}{5}$$

$$= \frac{120}{5}$$

$$= 24$$

Mark X	Actual Deviation from Mean $d = x - m$	Square of Deviation d^2
20	-4	16
25	1	1
32	8	64
15	-9	81
28	4	16
		$= 178$

Standard Deviation (s) $= \sqrt{\frac{\sum d^2}{n}}$

$$= \sqrt{\frac{178}{5}}$$

$$= \sqrt{35.6}$$

$$= 5.96$$

10. It is important to note that for making any calculation in accordance with the above noted formula, the whole exercise is done examiner-wise.

There were fourteen set of different examiners who examined the copies of law papers. For finding out the mean of the raw marks, the mean of the

marks awarded by only one examiner was determined . The mean of all the candidates who appeared in a particular paper was neither determined

nor was taken into consideration. Similarly, the mean of all the papers was neither determined nor was taken into consideration. There was no

comparison of the marks of all the fourteen examiners who examined the law papers. The formula as applied by the Commission did not take care

of the varying standards which may have been applied by different examiners but has sought to reduce the variation of the marks awarded by the

same examiner to different candidates whose copies he had examined. The table given in Annexure-1 to the supplementary-affidavit shows that the

examiners were mostly given three hundred copies and the entire exercise of calculating the mean marks and the standard deviation has been done

individually and separately for each examiner. The working of the formula was explained to the Court by Sri B. N. Singh, learned counsel for the

Commission who was assisted by Sri Shukla, System Analyst in U. P. Public Service Commission. He also made a statement that the scaling has

been done with reference to each examiner and not subject-wise.

11. Table "A" given earlier demonstrates how the scaling done by the Commission has affected the marks awarded to the candidates by the

examiners. Those who actually got 377 or 379 marks were enhanced to 545 and 549 marks respectively while a candidate who had actually

secured 579 marks was reduced to 552. Thus, a lead of 200 marks secured by a far superior candidate was reduced to just 3 marks. A lead of

about 149 marks secured by a candidate was completely reversed and the candidates securing lesser marks went higher and took a lead of

substantial number of marks. Table "B" which shows the marks of Language II paper depicts the same position. This paper was of 40 marks. A

large number of candidates had secured zero mark in this paper on account of the fact that they have absolutely no knowledge of Urdu language

and are wholly ignorant thereof. However, the marks of those candidates were enhanced to 18. Thus, they have been awarded 45 per cent marks

(18 x 100/40 = 45). The marks of the candidates securing 31 or 34 marks were reduced to 27 and 30 respectively. Zero is zero. Zero multiplied

by a million or a billion is zero and zero multiplied by infinity is zero. However, by the scaling done by the Commission, zero has been enhanced to

18 which means 45 per cent marks. Zero was discovered by the Indian mathematicians in the seventh century B. C. Aryabhatta (A.D. 476-520)

the great, Indian astronomer, expounded the properties of zero. But the formula devised by V. Natarajan and K. Gunasekaran makes zero as 17

or 18 and this has been blindly accepted by the Commission to scale the marks actually awarded by the examiners.

12. Some one not knowing Latin or Greek will get zero even in a simple examination of the said subjects. But if by a process of scaling, as has

been done here by the Commission, he is awarded 45 per cent marks, it will convey an impression that he has at least a workable or reasonable

knowledge of the subject. This clearly demonstrates that the very purpose of holding the examination, viz., to test a candidate''s knowledge and

ability Is completely defeated by the scaling process.

13. The drastic and substantial alternation in the marks as a result of scaling has occurred on account of the fact that the mean of the marks plays a

major role in the formula applied for determining scaled mark. As mentioned earlier, the mean is determined by totalling or adding the marks

secured by all the candidates examined by one examiner and dividing the same by the number of candidates. Again in calculating the standard

deviation, the mean of the marks plays a major role. Thus, if in a set of examination copies examined by one examiner, majority have secured very

poor marks and few bright candidates have secured high marks, their marks will be considerably reduced as the mean of the whole set or group

will be less. The formula Itself contemplates that impossible situations may arise. After scaling, a candidate''s marks may become less than zero or

may get marks in minus. According to the formula, he would be given zero mark. It also contemplates that after scaling, the marks may exceed the

maximum marks. Here he would be allotted the maximum marks. The purpose of holding a competitive examination is to judge the comparative

merit of the candidates. The purpose is not to award him a division or the scores in passing a particular class like X or XII. Any formula which

affects the actual marks secured by a candidate by taking mean or average of the marks secured by all the candidates examined by one examiner

cannot be used at all in judging the comparative merit of a candidate. The scaling of marks done by the formula applied by the Commission affects

or alters the actual marks secured by candidates to a great degree by taking Into account some kind of a mean or average of the group and thus

they cease to be a true guide for assessing their comparative merit. The scaling of the marks, which completely vitiates the result of the examination,

has no rational basis and, therefore, cannot be permitted in any manner.

14. Another fallacy which lies in the process of scaling is that the same is done examiner-wise only. It is the marks awarded by one single examiner

to a group of candidates, whose copies he has examined, which are scaled. This is done by recourse to a formula which takes into account the

mean or average of the marks secured by that particular group. There can be a strict examiner who awards less marks or a liberal examiner who

awards comparatively more marks but in normal course, an examiner will apply the same yardstick to the entire group whose copies he has

examined. If the same examiner awards very poor marks to some candidates and awards very high marks to some others, he does so consciously

applying his own yardstick, which cannot be faulted. The scaling formula does not take into consideration the average or mean of all the candidates

in one particular paper but takes mean of only that group of candidates which have been examined by one single examiner. The reduction or

enhancement of marks of candidates only on account of the fact that the average or mean of the marks secured by the group (viz, the whole lot

examined by one examiner) in which they fall, is different has absolutely no basis and cannot be accepted by any process of reasoning. There can

always be some outstanding boys and some very poor boys in one group which were examined by a single examiner. If per chance, the average or

mean of the whole group is around 50 per cent, the marks secured by the outstanding candidate who may be of the calibre of 80 or 90 per cent

would be drastically reduced and the marks secured by the poor candidate who may be of the calibre of around 10 per cent would be

considerably enhanced. This kind of a system can have no place in an examination which is conducted for judging the comparative merit of a

candidate.

15. The reasoning for applying the system of scaling has been given in para 4 of the counter-affidavit and it will be useful to reproduce the same :

.... The grounds for introducing scaling system have been numerous. There are various subjects and separate set of examiners are

engaged in evaluation and other processes, causing great deal of variation of standard in evaluation of answer books. In order to reduce the

variation in evaluation by different examiners and to do Justice to all the candidates, the scaling system was applied, using appropriate statistical

technique, and prominent technical expert have examined the system..................

16. It may be accepted that there may be variation in standard of evaluation of answer books by different examiners. There can also be wide

disparity in the marks secured by the candidates in different subjects on account of unusually easy or simple paper having been set in one subject

and an unusually difficult paper having been set in another subject. In such a case, the candidates opting for the subject in which the paper was

easy may get advantage. But the system of scaling adopted here does not obviate anyone of the aforesaid two contingencies. There is no

comparative evaluation of marks awarded by different examiners of the same subject to bring them to a common scale. Similarly, there is no

comparative evaluation of marks of candidates who have opted for different subjects. In the present case, namely, Civil Judge (Jr. Div.)

examination, there is no optional paper and all the papers are compulsory and, therefore, there is no occasion for comparative evaluation of marks

of different subjects. I have pointed out this fact in order to demonstrate the fallacy of the scaling technique which the Commission has adopted.

17. The marks secured by the candidates in interview, wherein sitting Judges of this Court sat as experts, also show wide disparity. There are

candidates who have secured between 30 and 40 per cent marks and there are others who have secured 75 per cent marks in interview. This was

the position when the candidates who had been called for the interview were the top echelon of the whole lot who had appeared in the written

examination. The disparity in the marks of the candidates who appeared in the written examination would be far greater. This may be on account of

variety of reasons. All those who lake up a competitive examination are not necessarily very serious. Anyone with any kind of career is entitled to

appear in the examination. There is a bar of three years of practice but after enrolment many may not have devoted to the legal practice and may

not have been in touch with the subject of law which has three papers of two hundred marks each. There may have been some really bright and

laborious candidates who may have prepared the subject very well. Therefore, the scaling process by which the actual marks secured are

drastically altered by applying a formula in which the mean or average of whole group examined by one examiner plays an important role is wholly

destructive of the examination process.

18. As mentioned earlier, the Commission has applied the formula given in the book "Scaling Techniques by V. Natarajan and K. Gunasekaran"". It

is not known who these gentlemen are, what are their academic qualifications, where they are working and whether the formula suggested by them

has been tested on a practical plain. The book was published in 1985. There is no material to show that the formula has actually been found to be

correct by the authorities who deal with the subject of education. It will be useful to reproduce a few lines from what the authors have said in

Chapter "Introduction" on page 4 of the book :

Scaling techniques will have to be introduced whenever and wherever the situation warrants. If different sets of marks are to be added and/or to

be compared, they need to be scaled to a common standard where such standard is lacking...................

In Chapter ""Need for Scaling Techniques"" on page 23, it has been said as under :

.... The analysis of the marks awarded by the examiners showed that they differ in average marks, range of marks awarded and the merit

of individual candidates, even though they all received equivalent batches of answer scripts.

19. Even the above quoted views of the authors are not being achieved by the system adopted here as there is no comparative evaluation of marks

awarded by one examiner with that of another examiner. There is no comparative evaluation of marks awarded in different subjects. What is being

done is to re-evaluate the marks awarded to a group of candidates by the same examiner. It can be safely presumed that an examiner applies the

same standard to all the candidates of his group or whose copies he has to examine. The same examiner is not likely to adopt different standards to

different candidates while examining copies of a particular paper.

20. In view of the fact that the scaling is applied on the basis of a statistical formula, it will be useful to have an idea as to what is Statistics and what

is its purpose. In Volume 18 of The World Book Encyclopedia (published in 1990 by World Book, Inc.) it has been defined as under :

Statistics is a set of methods that are used to collect and analyse data. Statistical methods help people identify, study, and solve many problems.

These methods enable people to make good decisions about uncertain situations.

Statistical methods are used in a wide variety of occupations. Doctors use such ""methods to determine whether certain drugs help in the treatment

of medical problems. Weather forecasters use statistics to help them predict the weather more accurately. Engineers use statistics to set standards

for product safety and quality. Statistical ideas help scientists design effective experiments. Economists use statistical techniques to predict future

economic conditions........

21. In volume 25 of Encyclopedia Americana (1986 Ed.), at page 629, it has been described as under :

Statistics.--Originally, the word ""statistics"" was used to designate collections of data pertaining to matters of importance to a political state, such as

population counts, deaths, tax returns, and the amount of internal or external trade. Over the years, its original use has been extended to include

almost any kind of numerical data, including major league base ball records, theatre attendance, monthly rainfall or automobile production per year.

When used as a plural noun, the word ""statistics"" refers to such quantitative data. As a singular noun, to a branch of mathematics that deals with

such data.

As a field of study, statistics is the science and art of obtaining and analyzing quantitative data in order to make sound inferences in the face of

uncertainties. A statistical inference may be an estimate based on the data from a single experiment or a limited sample of some population or

aggregate that contains more items than the sample contains. Also, a statistical inference may require a test of some hypothesis by means of

information from the experiment or sample.

The uncertainty arises from the incompleteness of the data with which statisticians work. Inductive reasoning based on the mathematics of

probability is used to assess the fallibility of an estimate or test. Furthermore, the measure of the fallibility of the estimate or test is calculated from

the observed data themselves.

Since statistics used inductive reasoning based on the mathematics of probability, this aspect of statistics is branch of applied mathematics. Its

method stem from the axioms and theorems of probability, which in turn is a field of pure mathematics. However, valid and efficient measures of

fallibility of inferences, In terms of exact probability statements are possible only if certain steps are taken in a given investigations. Consequently,

statistics finds itself concerned with such matters as the collection and tabulation of numerical data, the description of group characteristics of the

particular data observed, the design of experiments and sample surveys, experimental and survey techniques, questionnaire construction, and the

training and supervision of interviewers and enumerators...............

22. Some formulas are also given which use mean, standard deviation and variance as parameters. In the field of analytical statistics, on page 632,

it is said as under :

Analytical Statistics

Two important branches of analytical statistics are the design and analysis of sample surveys and the design and analysis of experiments.

Design and Analysis of Sample Surveys.--In many important investigations-for example, marketing studies, public-opinion polling, readership

studies, monthly labour-force studies, crop and livestock inventories, and forest inventories--it may not be feasible or desirable to obtain

observations on the characteristics of all of the members of a population. For such investigations, statistics provides a number of survey sampling

techniques ....

23. In volume 28 Encyclopaedia Britannica (1985 Ed.), on page 230, it has been described as under ;

Statistics is the art and science of gathering, analyzing and making inferences from data. Originally associated with numbers gathered for

Governments, the subject now includes large bodies of method and theory.............

The ideas of effective design for data gathering are also basic to the construction of sample surveys, a branch of statistics most popularly known for

its contributions to public opinion polling, to pre-election forecasting, and to market research. Perhaps even more significant is this branch''s service

to Government through, for example, estimates of amount of unemployment and cost of living which have become indispensable in attempts to

regulate the economy. Sample survey methods have found uses in accounting, inventory control, and other areas.

Here also a large number of formulas have been given for solution of various kinds of problems, which involve feeding of different kinds of

parameters.

24. It will thus be seen that the statistics is the science of obtaining and analysing quantitative data in order to make reliable inference in the face of

uncertainties. It requires calculation and tabulation of numerical data and determining the characteristics of the particular data observed. The

statistical data can never be applied to Individual cases, nor the merit or worth or potential of the individuals can be determined on its basis. The

purpose of statistics is entirely different and is used for taking policy decisions with regard to a large group or segment of population or the matter

under consideration.

25. Application of statistical data to individuals may result in gross absurdities. In India 2002 published by the Ministry of Information and

Broadcasting, Government of India (on page 292), the per capita Income in the country in the year 1999-2000 is mentioned as Rs. 16,047. Using

the said data, can it be said that the income of every Indian was Rs. 16,047 in that year? Even applying a deviation of fifty percent on either side, it

will come to Rs. 8,000 to Rs. 24,000 per annum. There are many Indians whose income is far less and there are some whose income is in crores.

Similarly, regarding life expectancy, it is mentioned on page 205 that it has risen from 37.1 years (male) and 36.2 years (female) in 1951 to 62.3

years (male) and 65.27 years (female) in 1999. Can this data be used to say that a particular individual female will necessarily live upto the age of

65 years and will necessarily not live beyond that age? A deviation of 25 percent on either side will mean 49 to 81 years, which would make a

world of difference for the concerned individual. This data can no doubt be used in the face of uncertainty, namely, for assessing the life expectancy

in the case of accidental death or in laying down the health policy by the Government. But it can never be used where the facts and figures are

known as in the case of competitive examination where the marks secured by each candidate is known with exactitude. Therefore, to apply any

principle of statistics to scale the marks of the candidates and then to determine their comparative merit would be wholly wrong and cannot be

countenanced in any manner.

26. M. J. Moroney, a Fellow of the Association of Incorporated Statisticians and of the Royal Statistical Society, has written a book ''Facts From

Figures" which has been published by Penguin Books Ltd. The title of the first Chapter in the book is Statistics Undesirable and the opening lines

are as under :

There is more than a germ of truth in the suggestion that, in a society where statisticians thrive, liberty and individuality are likely to be

emasculated. Historically, Statistics is not more than State Arithmetic, a system of computation by which differences between individuals are \

eliminated by the taking of an average. It has been used Indeed, still is used-to enable rulers to know just how far they may safely go in picking the

pockets of their subjects. ....

A few lines from the last two paragraphs of the same Chapter gives a true picture of statistics and the same is being reproduced below :

.............,.... There still remains the sorry spectacle of opposing factions in politics and medicine (to mention only two of the most obvious cases)

who bolster up their respective cases by statistics in the confident hope that "figures cannot lie" or, as they often hope, that "you cannot dispute the

figures". All this is very sad indeed, for these ardent computers are usually truly sincere in their convictions even where they are rash with their

statistical deductions. The cynic sums it up in the old tag : There are lies, damned lies, and statistics."

For the most part, statistics is a method of investigation that is used when other methods are of no avail ; it is often a last resort and a forlorn hope.

A statistical analysis, properly conducted, is a delicate dissection of uncertainties, a surgery of suppositions. The surgeon must guard carefully

against false incisions with his scalpel. Very often he has to sew up the patient as inoperable.....................

27. There is another book ""How to lie with Statistics"" written by "Darrell Huff (published by Penguin Books Ltd.). It gives various examples how

statistical data often produces misleading results.

28. It is also necessary to take note of the fact that in order to find out the mean and standard deviation, the marks secured by each candidate in

the group examined by one examiner have to be taken into consideration and, thereafter, the calculation is made. Learned counsel for the

Commission has made a statement that the marks are fed in computer wherein necessary programming has been done and the mean and the

standard deviation are calculated and, thereafter, the scaled marks are determined. Even one error in feeding the data will alter the mean or

standard deviation, resulting in a faulty reading of the scaled marks of the whole group. The error committed would not even be known unless the

entire date is fed all over again. It is human beings who will feed the data in the computer and a single mistake will affect the whole group, which in

the present case will mean 300 candidates. The chances of error in the system of scaling are far more than where the merit is determined on the

basis of the marks actually secured.

29. Learned counsel for the petitioners has submitted that the selection for the post of Civil Judge (Junior Division) is made in accordance with U.

P. Nyayik Sewa Niyamawali, 1951, which was made by the Governor of U. P. in consultation with the High Court and Rule 15 thereof provides

for holding of a written examination. Learned counsel has submitted that when the rules require holding of a written examination, they contemplate

that the marks actually obtained in the said examination would be taken into consideration for determining the inter se merit of the candidates. But

the Commission has adopted a procedure of scaling of the marks without consulting the High Court and, thus, the variation of marks as a result of

scaling contravenes Article 234 of the Constitution. Sri B. N. Singh, learned counsel for the Commission has, on the other hand, submitted that In

exercise of power conferred by the U. P. State Public Service Commission (Regulation of Procedure and Conduct of Business) Act, 1974, the

Commission has made the U. P. Public Service Commission (Procedure and Conduct of Business) Rules, 1976. The 1974 Act has been repealed

and has been replaced by 1985 Act, and Section 14 (1) (ii) of this Act saves the aforesaid Rules. Learned counsel has referred to Rule 51, which

reads as under :

51. The mark-sheets so obtained shall be opened on the last day of Interview and immediately thereafter the marks of interview/personality test

shall be added to the marks obtained by the candidates in the written examination. Thereafter, on the basis of the totals so obtained the merit list

shall be prepared and placed before the Commission for final declaration of the result :

Provided that the Commission may, with a view to eliminating variation in the marks awarded to candidates at any examination or interview, adopt

any method, device or formula which they consider proper for the purpose.

30. Sri Singh has submitted that the Commission can adopt any method, device or formula which it considers proper for the purpose of eliminating

variation in marks awarded to the candidates and, therefore, the scaling of the marks done by the Commission is perfectly valid. It is difficult to

accept this submission. Rule 51 says that the merit list shall be prepared after adding the marks of interview/personality test with the marks secured

by the candidates in the written examination. The expression that the ""marks obtained by the candidates in the written examination"" means the

actual marks awarded by the examiner. The proviso cannot completely change the meaning or import of the main provision. The expression

variation in the marks"" does not mean a disparity in the marks awarded by the same examiner in the same subject in the same group which he was

required to examine. In the context in which the expression has been used, it may refer to a wide variation of marks awarded to candidates in

different optional subjects.

31. It is extremely doubtful whether the Commission has any power to frame a rule as is contained in proviso to Rule 51. The rule-making power is

contained in Section 11 of U. P. State Public Service Commission (Regulation of Procedure) Act, 1985, and it provides that the Commission may

make rules not inconsistent with the provisions of the Act for the regulation of its procedure. Section 9 of the Act provides for appointment of

paper setters, moderators and valuers. Section 10 of the Act lays down that every question paper shall be set by three different paper setters who

shall not belong to the same place and the moderators shall moderate all three question papers out of which one will be chosen. There is no

provision in the Act which may either directly or indirectly permit any kind of alteration in the marks awarded by the examination. That apart, it is

not suggested from the side of the respondents that the 1976 Rules have been made by the Commission in consultation with the High Court and,

therefore, the proviso to Rule 51 can have no application to an examination held for the purpose of making recruitment for the post of Civil Judge

(Junior Division).

32. Sri Singh has submitted that scaling of marks is part of the examination system and a policy decision has been taken by the Commission to

apply scaling in all the examinations including that of Civil Judge (Junior Division) and being a policy decision, it is not open to the Court to review

the same. In support of his submission, learned counsel has placed reliance on Maharashtra State Board of Secondary and Higher Secondary

Education and Another Vs. Paritosh Bhupeshkumar Sheth and Others, wherein it has been held that the Court cannot examine the wisdom, merits

or efficacy of the policy of the Legislature or its delegates to see if it effectuates the purpose of the Act. Reliance has also been placed on State of

Andhra Pradesh and Anr. v. V. Sadanandam and Ors. 1989 (1) SCC 574 wherein it has been held that the mode of recruitment and the category,

from which recruitment to a service should be made, are matters within the exclusive domain of the executive and it is not for judicial bodies to sit

in judgment over the executive decisions in these matters. In my opinion, the principle enunciated in the authorities cited by the learned counsel has

no application to the case in hand. The question here is whether the marks actually awarded to a candidate by an examiner on the basis of

objective assessment of the answers given by him can be altered in such a drastic manner by adopting a process of scaling which has brought

about a complete change in the marks. In fact, the marks awarded by the examiner have lost their identity and have been substituted by altogether

different marks which have no correlation to the answers given by the candidate. The Commission is not at liberty to frame any kind of policy and

to apply any kind of formula which has the effect of affecting the sanctity of the written examination and changing the marks awarded by an

examiner who is presumed to be an expert in the field.

33. Umesh Chandra Shukla Vs. Union of India (UOI) and Others, is a case relating to selection for the post of Subordinate Judge in Delhi Judicial

Service and the recruitment was governed by Delhi Judicial Service Rules, 1970. The High Court resolved to add two marks to the marks

obtained in each paper by way of moderation on the ground that a few candidates who had otherwise secured very high marks might have to be

kept out of the zone of consideration for final selection by reason of their having secured one or two marks below the aggregate or qualifying

marks prescribed in the particular paper. It was held that the addition of two marks by way of moderation to the marks obtained in any written

paper or to the aggregate of the marks in order to make a candidate eligible to appear in the viva voce test would indirectly amount to amendment

of Clause (6) of the appendix. Such an amendment to the Rules could be made under Article 234 only by the Lt. Governor after consulting the

High Court in that regard. It was further held that the candidates who appeared at the examination under the Delhi Judicial Service Rules acquired

a right immediately after their names were included in the list prepared under Rule 16 of the Rules which limited the scope of competition and that

right could not be defeated by inclusion of certain marks by way of moderation. In Durgacharan Misra Vs. State of Orissa and Others, it was held

that where the rules did not prescribe minimum qualifying marks for viva voce test, the Public Service Commission on its own could not prescribe

minimum qualifying marks for viva voce test and the exclusion of candidates on that count was not Justified. The mandate of Rule 18 is that the

Commission shall add marks secured at the written test and viva voce test, no matter what those marks are at viva voce test and on the basis of the

aggregate marks in both the tests, the names of candidates have to be arranged in order of merit. It was further held that the rules having been

framed under proviso to Article 309 read with Article 234 of the Constitution in consultation with the High Court, the Commission must faithfully

follow the rules.

34. Sri B. N. Singh has placed strong reliance on a decision of Rajasthan High Court given by D.B. in Civil Writ Petition No. 2685 of 1994,

Mahesh Kumar Khandelwal and Ors. v. State of Rajasthan and Ors., decided on 19th August, 1994, wherein the scaling of marks by applying the

formula given in the book Scaling Techniques by V. Nataraja and K. Gunasekaran was upheld. With profound respects and for the reasons

already Indicated in the earlier part of the judgment, I am unable to accept the view taken by the Rajasthan High Court. The case is also

distinguishable on facts. In paragraph 38 the Court observed as under :

........In the present case, the R.P.S.C. has not entered into any exercise in the name of moderation to pull up named and specified candidates,

even though they were ineligible. In the present cases, moderation was thought proper because candidates had taken various optional papers with

different standards and different scorabilities. That was not the case in either the Haryana case or the Delhi case, where the papers were common.

Hence, to our mind, case of Umesh Chandra Shukla (supra) also does not assist the petitioners in any way.

35. The reason which weighed wtth the Court to uphold the scaling was that the candidates had taken various optional papers with different

standards and different scorabilitles. In the case in hand, there are no optional papers at all and every candidate has to appear in all the papers

which are compulsory. It does not appear from the judgment that scaling done by the Rajasthan Public Service Commission is similar to that done

by the U. P. Public Service Commission wherein there is no inter-se comparison and evaluation of marks of different examiners or of different

papers, but it is confined to the group which has been examined by the same examiner in the same subject. Learned counsel has also referred to a

decision of a learned single Judge of this Court in CM. Writ Petition No. 14213 of 2000, Ram Surat and others Vs. U.P. Public Service

Commission, Allahabad and others, The learned Judge upheld the scaling system by observing that as many as 23 examiners had examined the

Hindi Essay paper, who may be either tough or lenient and, therefore, in order to appreciate about the objectivity and to eliminate the element of

subjectivity, the moderation of marks was proper. It was also observed that the marks of the petitioners of the said case had increased by scaling

and, therefore, they had been put in an advantageous position. In my opinion, in a case where selection is to be made on comparative merit, the

adoption of any such process which has the effect of adding marks to the actual score of the candidate, is destructive of the system wherein the

object is to select a small number of best candidates on the basis of their merit out of thousands of those who have appeared in the examination.

The other case relied upon by Sri Singh namely, C.M. Writ Petition No. 25071 of 2001, Shailendra Upadhya v. U. P. Public Service

Commission, decided on 16.8.2001, can be of little assistance as it related to U. P. Combined State/Subordinate Services (Prelim.) Examination,

wherein there are several optional subjects. The Court dismissed the writ petition with the observation that the object of scaling at the stage of

preliminary examination is confined to rationalisation of marks to ensure representation in said service of candidates having studied different

subjects. The manner in which the scaling formula is applied and its ultimate effect were not at all examined.

36. Though it is not germane in the present case as all the papers are compulsory but in view of the submissions made I feel constrained to observe

a few words even where there are several optional papers. It is a fallacy to think that the intellectual capacity of all the candidates opting different

optional subjects in a competitive examination is exactly equal and, therefore, it is necessary to apply a system of scaling so that the marks secured

by various candidates in different optional subjects come to the same level. Every subject or department in the same university does not carry the

same reputation having regard to demand or scope in the subject, the quality of the students and the teachers teaching there. Very often the last

student admitted in some prized or sought after subject would have secured more marks in the qualifying examination than the best admitted in

subject which is of less importance or having less scope. If both the subjects are optional subjects in a competitive examination conducted by the

Commission, it will be highly improper to equate the marks secured by the candidates in the two subjects by applying a process of scaling as there

is basic difference in the intellectual capacity of the candidates in the two subject. This can be demonstrated by giving an example. For admission to

the various. I.I.Ts. in the country, a competitive examination is held in which lakhs of students appear and finally a small number is selected. The

top position holders opt for most prized branches like electronics or computer science while those at the bottom of the select list are offered much

less important branches like textile engineering or ceramics. The last candidate who got admission in electronics or computer science would

invariably be far superior in intellect and merit to the best or No. 1 in textile engineering or ceramics.

37. I am fully conscious of the fact that in judicial review of an administration action, the Court is concerned with reviewing not merits of the

decision, but the decision-making process, (n Chief Constable of the North Wales Police v. Evans, (1982) 3 All ER 141 it was observed as

follows :

The purpose of Judicial review is to ensure that the individual receives fair treatment and not to ensure that the authority, after according fair

treatment, reaches on a matter, it is authorised by law to decide for itself a conclusion which is correct in the eyes of the Court.

38. In Ashbridge Investment Ltd. v. Minister of Housing and Local Government (1965) 1 WLR 1320 it was held that if the decision-making body

has gone wrong in its interpretation, its order can be set aside. In Padfield v. Minister of Agriculture 1968 AC 997 it was held that if the decision-

making body is influenced by considerations which ought not to influence it or fails to take into account matters which it ought to take into account,

the Court will interfere. Similarly, in Anisminic Ltd. v. Foreign Compensation Commission 1969 (2) AC 147 it was held that if the decision making

body goes outside its powers or misconstrues the extent of its powers, the Court can interfere.

39. In the present case, the Commission had completely altered and changed marks which had been awarded to the candidates by the examiners

by a process of scaling. As shown earlier, the scaling done is destructive of the examination process and the scaled marks depict an altogether

artificial picture wholly different from the real assessment of the candidates done by the expert examiners who had occasion to thoroughly examine

answers given by them. The scaling is also not justified or supported by any valid statutory provision. Therefore, the result of the examination

prepared after scaling the marks cannot be sustained and must be set aside.

40. In the result, the writ petition succeeds and is hereby allowed. The result of Civil Judge (Junior Division), Examination, 2000, which was

declared on 25.9.2001, is quashed. The U. P. Public Service Commission is directed to declare the result of the aforesaid examination on the basis

of the actual marks secured by the candidates without applying the formula of scaling.

N. K. Mehrotra, J.

Besides the opinion expressed by brother G. P. Mathur, J., I am also of the view that selection is made through competitive merit inter-se

candidates. Inter-se merit can be judged on the basis of actual marks obtained and not on the basis of artificial scaled marks. If any rule permits

Public Service Commission to adopt any device or formula for the purposes of the examination. It does not mean that Public Service Commission

can adopt any device irrespective of the absurdity in the result. Such a rule is liable to be quashed so far as it concerns the competitive examination

for selection of Civil Judges and it is declared non-applicable for the examination for selection of Civil Judge (Junior Division).

42. A candidate appearing in the examination has legal right to get the declaration of his result prepared according to the U. P. Judicial Services

Rules, 1951 or the U. P. Judicial Service Rules, 1999, whichever is applicable.

43. Article 320(1) of the Constitution empowers the Public Service Commission to conduct examination for recruitment to service but Article

320(1) is not applicable to recruitment to Judicial service as regards which special provision has been made in Article 234 but there is nothing to

debar the Governor to provide in the rules framed under Article 234 that the examination shall be conducted by the Public Service Commission

(See Pradyat v. Chief Justice, AIR 1956 SC 285).

44. In the rules under Article 234 in State of U. P., the Governor has not permitted the Public Service Commission to adopt any device in the

instant examination, which is contrary to the method provided under the Rules of 1951 or 1999.

45. Even for the arguments sake, the Public Service Commission can adopt any device, it shall be such device which can stand the test of proper

device to avoid valuation of marks in Judicial review. The instant device of scaling has been exhibited in different charts by brother G. P. Mathur,

J., resulting into alteration of merit, cannot be upheld as proper method/device to avoid variation.

46. Therefore, I am in complete agreement with the opinion expressed and order passed by brother G. P. Mathur, J.