CAREER PROFILE OF NET QUALIFIED RESEARCH FELLOWS: 1996 – 2001



Government of India



Study sponsored by
NSTMIS Division
Department of Science & Technology

Study conducted by
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December, 2006

ACKNOWLEDGEMENT

Manpower Management Centre (MMC) gratefully acknowledges the financial support given by NSTMIS Division of DST to conduct this study. The administrative support and guidance whenever needed was promptly provided by the officials of NSTMIS Division namely, Dr. Laxman Prasad, Head; Shri Rakesh Chetal, Adviser and Ms. Namita Gupta, Scientist 'E', for which the Principal Investigator is personally very much thankful to them.

The Centre expresses its deep appreciation to Dr. Rajesh Luthra, Head-HRD Group, Council of Scientific & Industrial Research (CSIR) under whose Chairmanship the Local Project Advisory Committee (LPAC), guided and provided its expertise to Principal Investigator in the conduct of this study. Dr. Luthra took keen interest from the very beginning of this study. It was due to his help that we were provided data of qualified NET Research Fellows without which this study would not have been possible. Whenever needed, he gracefully provided his precious time and consultation to the Principal Investigator.

The Centre also thankfully acknowledges the guidance and expertise made available by all the LPAC members in the conduct of this study and more especially the help given by Shri Rakesh Chetal, Ms. Namita Gupta, Dr. M.V. Krishnaswamy, Dr. Harish K. Saxena, Dr (Ms) Tripti P. Desai in finalizing this Report.

The Centre conveys its deep gratitude to all the NET Research Fellows and Academicians/Research Guides who filled in the questionnaires and helped in completing this study.

The help provided by all the staff members of the Centre, more especially by Mrs. Urmila Verma, Ms. Kalpana Missar and other Researchers in collecting, verifying and entering the data, is sincerely acknowledged. The assistance given by Mr. Anuj, Mr. Amit and Ms. Parul at all crucial stages of software designing, compilation and tabulation of data and final printing of the report is very much appreciated and acknowledged.

Y L Nangia Principal Investigator

Director

Manpower Management Centre

December, 2006

CONTENTS

Page No.

EXECUTIVE SUMMARY

i

CHAPTER - 1	INTRODUCTION	
1.1	National Eligibility Test (NET) - The Need	1
1.2	NET - The Objectives in Brief	2
1.3	NET Scheme of CSIR	3
1.4	NET Scheme of UGC	5
CHAPTER - 2	OBJECTIVES OF THE STUDY	
2.1	Previous Study by MMC - A Brief	8
1 to 1	Background	
2.2	Present Study - The Need	8
2.3	Objective of the Study	9
CHAPTER - 3	METHODOLOGY	
3.1	Local Project Advisory Committee (LPAC)	10
3.2	Target Population and Sample Size to be	10
	Covered	
3.3	Method of Data Collection	12
3.4	Structured Questionnaires	12
3.5	Data Processing and Analysis	12
CHAPTER - 4	RESPONSE STATUS	7 7 2
4.1	Status of Confirmed Addresses	13
4.2	Response to Questionnaires	13
4.3	Subject-wise Distribution of the Completed	14
	Questionnaires received	
4.4	Category-wise Distribution of Respondents	15
4.5	Limitations	15
CHAPTER - 5	PERSONAL, ACADEMIC & FAMILY	
	BACKGROUND	
5.1	State-wise Distribution of Respondents	16
5.2	Personal Background	18
5.3	Academic Background	22
5.4	Membership of Professional Bodies	24
5.5	Family Background	24
CHAPTER - 6	FELLOWSHIP TENURE	
6.1	Term as JRF and SRF	30
6.2	Joining of Fellowship	30
6.3	Distribution of Fellowship	30
6.4	Motivation of NET Fellowship	31
6.5	Subject-area of Ph. D	31
6.6	Extension and Upgradation Status of JRFs	31

6.7	Dran out Status	32
	Drop-out Status	
6.8	Civil Services Competition	34
6.9	Joining Professional Courses	34
6.10	Completion of Ph.D	35
CHAPTER - 7	CAREER PROFILE	
7.1	Employment Status after Ph.D Degree	38
7.2	Sector-wise Employment	39
7.3	Sector-wise & Duration-wise Placement	39
7.4	Income Statistics of Ph.Ds	40
7.5	Academic Specialization & Its Linkage with	41
	Present Job	
7.6	Special Incentive after Ph.D	41
7.7	Job Satisfaction	41
CHAPTER - 8	VIEWS OF ACADEMICIANS/RESEARCH	43
	GUIDES ON NET	
CHAPTER - 9	AN OVERVIEW ON NET BY JRFs	1
9.1	NET - A Good or Bad System	45
9.2	NET System – To Continue in Present Form	46
9.3	Suggestions – To Improve NET System	46
9.4	Conception About Fellowship Violation	47
CHAPTER - 10	RECOMMENDATIONS	51
ANNEX I	Local Project Advisory Committee (LPAC)	Province of the state of the st
ANNEX II	NET Subjects of UGC with Code Numbers	
ANNEX III	Membership of Professional Bodies	
ANNEX IV	Questionnaire - I	
ANNEX V	Questionnaire - II	
ANNEX VI	Questionnaire - III	

EXECUTIVE SUMMARY

- Out of 656 NET Fellows of 1996-1999, 36 belong to SC, 14 to ST and 4 to OBC category. Out of 1173 NET Fellows of 2000-2001, 85 belong to SC, 24 to ST and 12 to OBC category.
- For the period 1996 1999, the State-wise distribution of respondents shows that maximum number of JRFs participated from 8 States i.e. Kerala (118), West Bengal (98), Andhra Pradesh (89), Tamil Nadu (78), Uttar Pradesh (71), Maharashtra (48), Karnataka (26) and Delhi (26).
- For the period 2000-2001, the State-wise distribution of respondents shows that maximum number of JRFs participated from 10 States i.e. Kerala (204), West Bengal (178), Andhra Pradesh (134), Tamil Nadu (122), Maharashtra (112), Uttar Pradesh (103), Delhi (70), Karnataka (57), Rajasthan (31) and Gujarat (30).
- Out of 656 respondents, 453 (69%) Males and 203 (31%) Females for the period 1996 1999 and out of 1173 respondents, 773 (66%) Males and 400 (34%) Females for the period 2000-2001 participated in this study.
- The maximum number of Junior Research Fellows i.e. 392 of 1996-1999 NET and 658 of 2000-2001 at the time of joining fellowship were in the age group of 23-26 years.
- About 72 per cent male JRFs and about 59 per cent Female JRFs of 1996-1999 NET were married. The marital status of Male and Female JRFs of 2000-2001 was about 56 per cent and 51 per cent respectively.
- > 594 (90.55%)JRFs of 1996-1999 period completed their Ph.D out of which 39 went for Post Doctoral research. 570 (48.59%) JRFs of 2000-2001period completed their Ph.D whereas 603(51.41%) were still continuing with their Ph.D work
- > 393 (59.90%) and 263 (40.09%) respondents pertaining to the period 1996-1999 belong to Urban and Rural background respectively. This distribution was 668 (56.95%) and 505 (43.05%) respectively for the period 2000-2001.
- Occupation-wise the maximum numbers of fathers of JRFs i.e. 219 of 1996-1999 period and 410 of 2000-2001 were in "Service" whereas respectively for these periods the mothers i.e. 421 and 708 were attending to "Household" activities.

- Income-wise 206 (31.40%) fathers of JRFs of 1996-1999 were in the income range of Rs. 50,001 to 1,00,000/- followed by 174 (26.52%) fathers in the income range below Rs. 50,000/- and 125 (19.06%) fathers in the income range of Rs. 1,00,000/- to 2,00,000/- Similarly, Income-wise 365 (31.12%) fathers of JRFs of 2000-2001 were in the income range of Rs. 50,001 to 1,00,000/- followed by 296 (25.23%) fathers in the income range below Rs. 50,000/- and 264 (22.51%) fathers in the income range of Rs. 1,00,000/- to 2,00,000/-. Income-wise maximum number of mothers of JRFs of 1996 to 2001 were in the "No Income Range".
- Out of 656 JRFs of 1996-1999, 651 (99.24%) fellowships were awarded by CSIR/UGC and 5 (0.76) were by UGC all fellowships for the period 2000-2001 were awarded by CSIR/UGC.
- Subject-wise the maximum numbers of fellowships for the period 1996-1999 and 2000-2001 were taken up in "Life Sciences i.e. 291(44.36%) and 638 (54.39%) respectively.
- After taking up fellowship, 269 fellows pertaining to the period 1996-1999 and 360 fellows of 2000-2001 dropped out at various stages of their tenure.
- Out of the 33 JRFs of 1996-1999 and 75 JRFs of 2000-2001 who appeared in Civil Services Examination only 2 and 4 JRFs respectively were successful and they accepted employment in the Civil Services. However, all these JRFs were from the drop-outs.
- While doing Ph.D. 1028 papers were contributed by 507 JRFs of 1996-1999 and they contributed 931 papers after completion of their Ph.D. For the period 2000-2001, while doing Ph.D 1254 papers were contributed by 570 JRFs and 908 papers were contributed by them after completing their Ph.D.
- Employment Status indicates that majority of JRFs i.e. 358 (60.27%) took up Research jobs followed by 151(25.42%) who went for Teaching jobs for the period 1996-1999. For the period 2000-2001, the employment status of JRFs shows that majority of them i.e. 350 (61.40%) took up Research jobs followed by 93 (16.32%) who went for Teaching jobs.
- 321 (58.58%) Fellows of 1996-1999 took up Government Jobs followed by 134 (24.45%) Fellows in Private Sector. For the period 2000-2001, 284 (60.29%) Fellows took up Government jobs followed by 120 (25.48 %) in the private sector.

- Income-wise the majority of Ph.Ds are in the annual income range of Rs. 1-2 lakhs followed by a significant number in the rang of Rs. 2-3 lakhs for the period 1996-2001.
- Out of 1019 (548+471) employed Ph.Ds, majority of them i.e. 714 (70.06%) have stated that they have been in a position to utilize their academic specialization in their jobs.
- > 300 (54.74%) Ph.Ds of 1996-1999 and 246 (52.23%) Ph.Ds of 2000-2001 are satisfied with their jobs.
- ➤ 1646 (90 %) of JRFs consider that NET is a good system. 1704 (93.17%) have stated that NET system should continue. 1659 (90.70%) have indicated that NET system does not require any improvement.
- > 1097 (59.98%) Fellows agree that the violation/misuse of fellowship should be stopped.

INTRODUCTION

1.1 National Eligibility Test (NET) – The Need

(a) For Research Career

Wide variations in the standard of education in different departments of the same university and other universities made it difficult to make a true assessment of the candidates wishing to pursue a research career because marks in the university examination did not fully reflect their aptitude and ability. In view of this, NET came into being in 1984 for award of Junior Research Fellowships and first NET was held on 26th August, 1984 in Science, Humanities and Social Sciences by UGC. However, CSIR started conducting examination for the award of Junior Research Fellowships in 1983.

From 1986, UGC & CSIR started conducting separate NET i.e. UGC for subjects in Humanities and Social Sciences and CSIR in Science subjects. However, CSIR passes on about 300 qualified Junior Research Fellows in Science subjects to UGC. These Fellows are required to contact UGC directly for release of fellowship.

(b) For Teaching Profession

In early eighties, there was a general perception among the public and the leading educationists that well qualified persons were not being attracted towards teaching profession. Concerns were also expressed about the criteria that were employed for the selection of teachers. It was increasingly realized that quite a large number of people who neither had the competence nor the aptitude for teaching made an early entry into the profession.

The Committee formed by UGC in 1983 on revision of pay scales of teachers in the universities and colleges under the Chairmanship of Prof. R.C. Mehrotra recommended the following for the post of Lecturer:

- i) Qualifying at the National test conducted for the purpose by UGC or any other agency approved by UGC.
- ii) Master's degree with at lease 55% marks or its equivalent grade.

The qualifications should not be relaxed even for candidates possessing M.Phil/Ph.D. at the time of recruitment. The Mehrotra Committee also found that the stipulation of M.Phil/Ph.D. as an essential qualification for Lecturers had neither been followed faithfully nor did it necessarily contribute to the raising of teaching and research standards. In fact, it was of the view that, if at all, it had led

to the dilution of research standards on account of the rush to get a research degree in the shortest possible time. In view of the diversity of standards among universities, the Mehrotra Committee recommended that passing a national qualifying examination before recruitment be made an essential pre-condition.

The National Commission of Teachers on Higher Education headed by Prof. Rais Ahmed observed that:

"it is extremely important to make a rigorous merit based selection for the entry level of teaching profession".

The National Policy on Education, 1986, which was debated in the Parliament also states that:

"the method of recruitment of teachers will be reorganized to ensure merit, objectively and conformity with spatial and functional requirements".

In pursuance of this policy, it was suggested in the Programme of Action of National Policy of Education, 1986 that:

"the teachers will be recruited on the basis of a common qualifying test, the details of which will be formulated by UGC. Efforts will be made to move towards the objective of making recruitment of teachers on all India basis in consultation with the State Governments".

With a view to working out the modalities for the conduct of such a test for teaching profession, the Commission had constituted a Committee, which evolved strategies for the conduct of a national level eligibility test for the recruitment of teachers in universities and colleges. Consequently, the Government of India, through a notification dated July 22, 1988 entrusted the task of conducting the eligibility test for lectureship to UGC and CSIR. Thereby, they started conducting the National Eligibility Test for eligibility for Lectureship and the first such test was conducted in December, 1989.

1.2 NET - The Objectives In Brief

The NET Scheme was formulated with the objectives:

- a) to design a test that will ensure greater comparability of marks as well as higher degree of validity and reliability;
- b) to assess the research aptitude, reasoning and comprehension of the candidates;
- c) to assess the competence of the candidates at the post-graduate level in the core and elective areas in the optional subject; and

d) to conduct this test as an eligibility condition for the award of junior research fellowships and now since 1989 as an eligibility condition for the job of lectureship.

In brief, the NET is conducted in order to ensure minimum standards for the entrants in research and teaching profession.

1.3 NET Scheme of CSIR

A certain number of Junior Research Fellowships (JRFs) are awarded each year by CSIR to those holding M.Sc or equivalent degree, with minimum 55% marks (applicable to General and OBC candidates) and minimum of 50% marks (applicable to SC, ST and Physically Handicapped), after qualifying the National Eligibility Test (NET) conducted by CSIR twice in a year. The tests are conducted generally on the penultimate Sunday in the months of June and December.

1.3.1 Application Procedure

Applications for JRF are invited twice a year through press advertisement on all India basis in the prescribed application form. The completed application form is required to be submitted to the Controller of Examinations, Examination Unit, CSIR Complex Building, Opp. Institute of Hotel Management, Pusa, New Delhi – 110012.

1.3.2 Age Limit

The upper limit for JRF is 28 years which is relaxed upto 5 years in the case of candidates belonging to Scheduled Castes/Scheduled Tribes, Women, Physically Handicapped and OBC applicants.

1.3.3 Selection Procedure

The selection for award of JRF is made on the basis of a competitive written test called the National Eligibility Test (NET), conducted by CSIR at national level and consisting of the following two papers:

Paper – 1 is objective type consisting of Part (A) general nature and Part (B) is subject type. It tests the mental ability and broad awareness of scientific knowledge at the rudimentary level.

Paper -2 is to be selected from amongst the following:

- (1) Chemical Sciences
- (2) Earth, Atmosphere, Ocean and Planetary Sciences
- (3) Life Sciences
- (4) Mathematical Sciences
- (5) Physical Sciences

Paper – 2 requires short descriptive answers to questions.

Merit is prepared on the basis of aggregate marks obtained in both papers. The candidates who qualify in the test are informed individually after the result is finalized. The junior research fellowship is awarded on receipt of necessary details of the qualifying degree examination, place of work, research topic, the name of supervisor and the concurrence of the Institution to provide all the necessary facilities. The validity of the offer of this award is one year. The candidate is expected to register for Ph.D degree within a period of two years from the date of joining.

1.3.4 Stipend and Tenure

The stipend of a JRF selected through the all India test is Rs. 8,000/- per month plus H.R.A. as applicable, for a period of 2 years. In addition, annual contingent grant of Rs. 20,000/- per fellow is provided to the University/Institution.

On completion of 2 years as JRF, the stipend is increased to Rs. 9,000/- per month for the 3rd and subsequent year, on the basis of assessment of Fellows' research progress/achievements through interview by an Expert Committee consisting of the Guide, Head of the Department and External Member from outside the University/Institution who is an expert in the relevant field, not below the rank of Professor/Associate Professor. As far as possible the External Member is made the Chairman of 3 member Committee. Where the Guide happens to be the Head of the Department, the Dean, Faculty of Science or any senior member of the Department is associated as the third member of the Committee. On upgradation, the designation of JRF is changed to SRF (NET). In the event of the Committee not recommending upgradation the candidate continues as JRF with a stipend of Rs. 8,000/- per month plus H.R.A. for the 3rd year or his fellowship is terminated depending upon the decision of the Committee. The progress of research work of JRF is assessed again at the end of 3rd year for such upgradation.

It is expected that Fellows should have published work to their credit by the end of 3rd year. This shall form an important quantitative and qualitative criterion for judging the progress made by the candidate. If the work of JRF is still not found satisfactory for upgradation, the fellowship is terminated. Extension of tenure of SRF (NET) for the 4th year is on the basis of the progress report and recommendation of the guide. The 5th year extension as SRF (NET) is

permissible on the recommendation of three members assessment Committee and progress report duly supported by publications in the form of reprints/preprints/manuscripts of the paper published, accepted or communicated for publication.

The total tenure as JRF plus SRF (NET) is five years. This includes the tenure of Fellowship awarded by UGC/DST/ICMR/ICAR etc., or any other funding agency/Institution. The order for continuation at the same rate of stipend as SRF (NET), continuation at the same rate of stipend as JRF or otherwise is issued by the EMR Division of HRD Group, CSIR. It is mandatory on the part of the fellow to acknowledge support of CSIR in his/her research publication.

More details about CSIR-NET can be seen from website <u>www.csirhrdg.res.in</u> of HRD Group, CSIR.

1.4 NET Scheme of UGC

The University Grants Commission (UGC) conducts an all-India examination (NET) to assess candidates eligibility for the award of Junior Research Fellowship (JRF) and for recruitment of Lecturers in Universities and Colleges. The test is held twice in a year (June and December) in the faculties of Humanities (including Languages), Social Sciences etc. The University Grants Commission at present conducts NET in 77 subjects at 66 centres spread across the country and six centres abroad for Indian Nationals. UGC has, however, taken a decision to discontinue conducting UGC-NET at foreign centres from June, 2004.

1.4.1 Application Procedure

The notification is published in Employment News and leading newspapers approximately 4 months prior to the date of the examination. Candidates must apply in the application format in duplicate as given in the advertisement in accordance with the rules mentioned.

1.4.2 Academic Eligibility

A minimum of 55% (50% for SC/ST candidates) marks in UGC specified Master's degree or equivalent examination in Humanities (including Languages) and Social Sciences, Computer Applications, Electronic Sciences, etc.

It is mandatory for candidates to appear in subjects of their post-graduate studies. If the particular subject is not included in the list then he/she may opt for a related subject.

Candidates who have appeared or will be appearing for the qualifying Master's Degree examination and whose result is awaited or candidates whose examinations have been delayed may also apply for this test. However, such

candidates are admitted provisionally and shall be considered eligible for the award of JRF/Lectureship eligibility only after they have passed the Master's Degree Examination or equivalent with at least 55% marks (50% in the case of SC/ST) candidates). These candidates must submit their relevant PG Degree within one year from the date of the NET examination.

1.4.3 Other Eligibility Conditions

Age Limit

(a) For Junior Research Fellowship

The candidate must not be more than 28 years as on June 1/December 1 for the June/December examination with relaxation up to 5 years for SC/ST/OBC categories, physically handicapped and female candidates. Relaxation is also made for candidates who have done research/training at the level of post-graduate study, limited to the period spent on research/training in the subject, subject to a maximum of 5 years and supported by a certificate from the appropriate authority. For those possessing an LLM degree, 3 years age relaxation is granted.

(b) For Lectureship

Candidates who have passed an M.Phil Degree or submitted a Ph.D. thesis on or before December 31, 2002, or passed the UGC-CSIR-JRF test before 1989, or passed the State Level Eligibility Test (SLET) accredited by the UGC for Lectureship, are exempted. The UGC notification that generally appears 4 months ahead of the examination in the Employment News may be referred to for further details.

1.4.4 Scheme of the Examination

Paper – 1 assesses the teaching/research aptitude by testing reasoning ability, comprehension and divergent thinking. The 1 hour 15 minute paper carries a maximum of 100 marks and is common for all subjects.

Paper -2 corresponds to the subject of post-graduate study. This 1 hour 15 minute paper also carries a maximum of 100 marks and the candidate has the option to choose the subject. Generally each of Papers 1 and 2 consist of a test booklet, each of 50 objective type questions. There will be no **negative** marking for wrong **answers** to Paper 1 and 2.

Paper -3 is a descriptive type in which questions are asked on the subject chosen by the candidate. This 2 hour 30 minute paper carries a maximum of 200 marks. Only those who score a prescribed minimum aggregate in Paper 1 and 2 will have their Paper 3 evaluated.

Subjects

UGC conducts NET in subjects of Humanities and Social Sciences apart from four science subjects viz., Computer Science & Applications, Electronic Science, Environmental Science and Forensic Science which are listed with their respective Code Numbers in Annex.II.

1.4.5 Nature of Assistance Available under the Scheme

The tenure of fellowship is initially for two years under the JRF scheme. Upon expiry of this period, the work of the Fellow is evaluated by experts. If the research work is found satisfactory, his/her tenure is extended for further period of three years under the enhanced emoluments of the Senior Research Fellowship (SRF). In case the work for the first two years is not found satisfactory, an additional year is given to him/her for improvement. However, during this period he/she is designated as a Junior Research Fellow. In such cases work is evaluated again after three years, and if improvement is found, the Fellow gets two more years under the SRF. Thus, the total period of fellowship (JRF and SRF) is five years, with no further provision of extension.

Fellowship

- @ Rs. 8,000/- per month for initial two years (to JRF)
- @ Rs. 9,000/- per month for the remaining tenure (to SRF)

Contingency A

- @ Rs. 10,000/- per annum for initial two years (Humanities & Social
- @ Rs. 20,500/- per annum for remaining tenure Sciences)

Contingency B

- @ Rs. 12,000/- per annum for initial two years (Sciences)
- @ Rs. 25,000/- per annum for remaining tenure

Departmental Assistance

@ Rs. 3,000/- per annum per student to the host institution for providing infrastructure.

Escorts/Reader Assistance

@ Rs. 1,000/- per annum in cases of physically handicapped and blind candidates.

More details about UGC-NET can be seen from their website www.ugc.ac.in.

OBJECTIVES OF THE STUDY

2.1 Previous Study By MMC - A Brief Background

The first national level test to determine eligibility for Junior Research Fellowships (JRFs) was conducted by the University Grants Commission (UGC) on 26th August, 1984 in 12 subjects viz. Physics, Chemistry, Mathematics, Life Sciences, Geology, Geography, Economics, Psychology, Political Science, Philosophy, Sociology and History. Manpower Management Centre (MMC), New Delhi had conducted a study in 1994-95 titled "Career Profile of Recipients of Junior Research Fellowships awarded by CSIR & UGC in 1984" with the main objective of examining whether the NET system has been successful or not in selecting the best talent for research. A number of other objectives such as termination of Junior Research Fellowships, upgradation to Senior Research Fellowships, Number of Drop-outs, Publications, Number of fellows completed Ph.D, their employment & income statistics etc., were looked into and a report was submitted in July, 1995 to the Department of Science & Technology, Government of India, New Delhi.

2.2 Present Study - The Need

It is over 10 years now when the above study was conducted and that too of the first batch of qualified fellows of NET 1984. The present study is concerned with science subjects only for which NET is now conducted by CSIR. In addition, the study also covers fellowships awarded in the subjects viz. Computer Science & Applications, Electronic Science, Forensic Science and Environmental Sciences for which Net is conducted by UGC along with Humanities (including languages) and Social Sciences etc. CSIR, however, transfers a list of about 300 NET qualified candidates in science subjects to UGC for award of junior research fellowships.

The University Grants Commission at present conducts NET in 77 subjects at 66 centers spread across the country and six centers abroad for Indian Nationals. UGC has, however, taken a decision to discontinue conducting UGC-NET at foreign centres from June, 2004.

Hence, a need was felt to look afresh into the Career Profile of NET Qualified Research Fellows. The details of NET Schemes of CSIR and UGC are given in Chapter -1 for general information and use by those who may aspire to appear in the NET in future.

2.3 Objectives of the study were to find out:

- subject-wise distribution of Junior Research Fellows (JRFs) who finally took up fellowship after selection;
- state-wise distribution of Junior Research Fellows;
- personal, academic & family background of Junior Research Fellows;
- information about the number of Junior Research Fellows who were upgraded as Senior Research Fellows (SRFs) after completion of 2 years;
- number of Junior Research Fellowships which were terminated by the Expert Committee after completion of 2 years;
- number of Junior Research Fellows who were not upgraded by the Expert Committee but allowed to continue again as JRF for the 3rd year;
- number of Junior Research Fellows who could not get upgradation even after getting extension for the 3rd year;
- number of Junior & Senior Research Fellows who dropped out of their own accord from research work during the tenure of 5 years; their distribution gender-wise and subject-wise and to record the reasons for dropping out;
- Field-wise/subject area-wise distribution of research papers published by the Fellows in Indian and International Scientific Journals during their tenure and awards, if any, received by them;
- the number of Fellows who have completed Ph.D and those who have not;
- the employment status and income statistics of those Fellows who have completed Ph.D i.e. the type of jobs they have taken up, like Teaching, Research, IAS & other services, Banking, Self-employment etc., and income derived by them;
- subject-wise, which subject has provided fast and more job opportunities to research fellows viz-a-viz to see in how much time they got their first placement after completion of Ph.D;
- finally, Fellows were asked to give their frank opinion on the NET fellowship scheme as a whole:
- through a separate structured questionnaire, the frank opinion of about 50 academicians/scientists/research guides on the NET Fellowship system.

CHAPTER-3

METHODOLOGY

3.1 Local Project Advisory Committee (LPAC)

This study has been conducted under the expert guidance of a Local Project Advisory Committee (LPAC) which was constituted with the approval of the NSTMIS Division of the Department of Science & Technology, Government of India. This LPAC was headed by Dr. Rajesh Luthra, Head-HRD Group, Council of Scientific & Industrial Research (CSIR) as Chairman and 8 other Members were associated with it from DST, UGC, AICTE, Department of Secondary & Higher Education, Delhi University and a Management Institute. Director, Manpower Management Centre, New Delhi, who was the Principal Investigator (Project Director) served as Member-Secretary to this Committee. A complete list of the Names & Addresses of the Members of LPAC is placed at Annex. 1 at the end of this report.

3.2 Target Population

The target population for this study was divided into two parts i.e. one for the period 1996 - 1999 and another for the period 2000-2001. The first part of this study is concerned with those Junior Research Fellows who were selected on the basis of National Eligibility Test of 1996-1997-1998-1999 (4 years). The reason for doing so was that these Fellows may have completed their Ph.D., by the year 2005 i.e. the year in which they were asked to fill up the questionnaire. Their data for this period was collected separately from **CSIR & UGC**, which is as follows:

CSIR	Selected	Fellows:
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Chem.	<u>Earth</u>	<u>Life</u>	Maths.	Stat.	Phy.	Engg.	Total
141	32	192	44	-	85	_	494
167	42	217	54	-	123	-	603
109	26	145	37	_	77		1097 394
82	19	121	29	-	63	, Tarrier	<u>314</u>
84	13	108	30		41		708 276
164	20	193	59	-	89		<u>525</u>
180	25	241	48		106	_	801 600
202	30	270	52	<u> </u>	107	٠, -	661
							1261
1129	207	1487	353	_	691		3867
	Chem. 141 167 109 82 84 164 180 202	Chem. Earth 141 32 167 42 109 26 82 19 84 13 164 20 180 25 202 30	Chem. Earth Life 141 32 192 167 42 217 109 26 145 82 19 121 84 13 108 164 20 193 180 25 241 202 30 270	Chem. Earth Life Maths. 141 32 192 44 167 42 217 54 109 26 145 37 82 19 121 29 84 13 108 30 164 20 193 59 180 25 241 48 202 30 270 52	Chem. Earth Life Maths. Stat. 141 32 192 44 - 167 42 217 54 - 109 26 145 37 - 82 19 121 29 - 84 13 108 30 - 164 20 193 59 - 180 25 241 48 - 202 30 270 52 -	Chem. Earth Life Maths. Stat. Phy. 141 32 192 44 - 85 167 42 217 54 - 123 109 26 145 37 - 77 82 19 121 29 - 63 84 13 108 30 - 41 164 20 193 59 - 89 180 25 241 48 - 106 202 30 270 52 - 107	Chem. Earth Life Maths. Stat. Phy. Engg. 141 32 192 44 - 85 - 167 42 217 54 - 123 - 109 26 145 37 - 77 - - 82 19 121 29 - 63 - 84 13 108 30 - 41 - 164 20 193 59 - 89 - 180 25 241 48 - 106 - 202 30 270 52 - 107 -

UGC Selected Fellows (only in science subjects):

Net Exam.	Computer Sc.	Electronic Sc.	Forensic Sc.	Environ-	Total
	& Appn.			mental Sc.	
June 1996	1	4	1		6
Dec. 1996	4	3	1	_	8
June 1997	1	3	3	-	7
Dec. 1997	4	2	1	. =	7
June 1998	1	0	0		1
Dec. 1998	8	2	I	-	11
June 1999	3	1	-	-	4
Dec. 1999	1	3	2	6	12
Total:	23	18	9	6	56

Thus, the total target population for the period 1996 - 1999 was 3923 (3867+56).

The second part is concerned with those Junior Research Fellows who were selected on the basis of NET of 2000 & 2001 (2 years). Keeping in view that they may not have completed their Ph.D., by the year 2005, it was decided by LPAC to make separate analysis for this part of the study. This part of the survey was conducted as per the following data collected from CSIR & UGC:

NET Exam.	Chem.	Ear	th Life	Maths	. Stat.	Phy.	Engg	g. Total
June 2000	238	36	360	64	-	134	· _	832
Dec. 2000	243	53	526	71	-	145	-	1038 1870
June 2001	258	60	595	78	-	157	-	1148
Dec. 2001	297	62	679	104	-	176	-	1318 2466
Total:	1036	211	2160	317	_	612	-	4336

UGC Selected Fellows (only in science subjects):

Net Exam.	Computer Sc. & Appn.	Electronic Sc.	Forensic Sc.	Environ- mental Sc.	<u>Total</u>
June 2000	5	0	1	7	13
Dec. 2000	1	2	1	5	9
June 2001	2	3	3	9	17
Dec. 2001	2	0	6	14	22
Total:	10	5	11	35	61

Thus, the total target population for the period 2000 & 2001 was 4397 (4336+61)

3.3 Method of Data Collection:

- 3.3.1 The names and addresses of selected Junior Research Fellows were collected from CSIR by Research Staff of MMC by getting permission from the Head, HRD Group, CSIR. UGC provided data of JRFs partially i.e. only for the first part of the study.
- 3.3.2 A letter for confirmation of address was sent to all the 8320 Junior Research Fellows along with a self-addressed stamped envelope.
- 3.3.3 The confirmed names and addresses of JRFs were then entered and listed in the computer.
- 3.3.4 The data were collected by sending at the confirmed addresses, a structured questionnaire along with self addressed stamped envelope to Junior Research Fellows by post as well as through e-mail. Wherever possible questionnaires were also got filled up by holding personal discussions/interviews.

3.4 Structured Questionnaires

Keeping in view the objectives of the study, three types of questionnaires were designed as given below:

- Qnr.I: For Research Fellows who qualified NET of 1996-1999 and who may have completed their Ph.D. (Annex.IV)
- Qnr.2: For Research Fellows who qualified NET of 2000-2001; as some of them may have completed their Ph.D (Annex.V), during the course of this study.
- Qnr.3: For Research Guides/Supervisors/Senior Scientists for their expert comments/suggestions on the NET system. (Annex.VI)

3.5 Data Processing and Analysis:

Appropriate computer software was designed and developed for entering the data received through the completed questionnaires, data processing, analysis, generation of tables, graphs and printing of report.

CHAPTER - 4

RESPONSE STATUS

4.1	Status	of Confirmed Addresses			
	JRFs f Letter Baland Confin	Number of letters dispatched to for confirmation of address: received back undelivered ce: rmation not received: rmed addresses received:	8320 - <u>2197</u> 6123 - <u>1786</u>		<u>4337</u>
4.1.1		bution of 4337 Confirmed Addresses red period-wise:			
	(a)	Confirmed Addresses Received out of 3923 JRFs of 1996 - 1999:			1965
	(b)	Confirmed Addresses Received out of 4397 JRFs of 2000 - 2001:			<u>2372</u>
		Total:			<u>4337</u>
4.2	Respo	onse to Questionnaires			
4.2.1	Quest	ionnaire -1			
		o JRFs of 1996 - 1999: oleted Questionnaires received:		<u>656 (3</u>	1965 (3.4%)
		s/Questionnaires/E-mails received IRFs who dropped out:			
	(i) (ii)	Those who did not accept fellowship: Those who took up fellowship but	423 (21.5%))	
		later dropped:	269 (13.7%) 692 (35.2%)		
	Total	Response inclusive of drop-outs(656+692):	1348 (68.6%		
	Quest	ionnaires not received back:	617 (31.4%))	
	Total	(1348 + 617):			1965

4.2.2 Questionnaire – 2

Sent to JRFs of 2000-2001: Completed Questionnaires received: Letters/Questionnaires/E-mails received from JRFs who dropped out:		2372 1173 (49.5%)
(i) Those who did not take up fellowship:(ii) Those who took up fellowship but later dropped:	561 (23.6%) 360 (15.2%)	
Total Response inclusive of drop outs:	921 (38.8%) 2094 (88.3%)	
Questionnaires not received back:	278 (11.7%)	
Total (2094+278):		2372
Questionnaire – 3		
Sent to Academicians/Guides: Completed Questionnaires Received:	53 (53%)	100
Questionnaires not received back: Total:	47 (47%)	100
	Completed Questionnaires received: Letters/Questionnaires/E-mails received from JRFs who dropped out: (i) Those who did not take up fellowship: (ii) Those who took up fellowship but later dropped: Total Response inclusive of drop outs: Questionnaires not received back: Total (2094+278): Questionnaire – 3 Sent to Academicians/Guides: Completed Questionnaires Received: Questionnaires not received back:	Completed Questionnaires received: Letters/Questionnaires/E-mails received from JRFs who dropped out: (i) Those who did not take up fellowship: (ii) Those who took up fellowship but later dropped: Total Response inclusive of drop outs: Questionnaires not received back: 278 (11.7%) Total (2094+278): Questionnaire – 3 Sent to Academicians/Guides: Completed Questionnaires Received: Questionnaires not received back: 53 (53%) Questionnaires not received back: 47 (47%)

4.3 Subject-wise distribution of the completed questionnaires received:

<u>1996-1999:</u>	No.	<u>2000-2001:</u>	No.
Chemical Science	165	Chemical Science	264
Earth Sciences	26	Earth Sciences	37
Life Sciences	291	Life Sciences	638
Mathematics	44	Mathematics	66
Physics	125	Physics	168
Computer Sc. & Appn.	3	Computer Sc. & Appn.	_
Electronic Sc.	1	Electronic Sc.	-
Environmental Sc.		Environmental Sc.	-
Forensic Sc.	_1_	Forensic Sc.	-
Total	<u>656</u>		1173

4.4 Category-wise distribution of Respondents

<u>1996-1999:</u>	No.	<u>2000-2001:</u>	No.
General	602	General	1052
SC	36	SC	85
ST	14	ST	24
OBC	4	OBC	12
Total	656		1173

4.5 Limitations

- (i) The response for the period 1996-1999 inclusive of drop-outs is 1348 (68.6%). Their being a gap of between 6 to 9 years from the year 2005 when this study was taken up, a large number of JRFs may have either left their place of residence or shifted to some other address due to their employment or for any other reason.
- (ii) The response for the period 2000-2001 inclusive of drop-outs is 2094 (88.3%). This is much better response due to the reason that the Fellows of this period are either in the process of doing their Ph.D or still available at their recorded addresses.

Hence, the analysis of the data in Chapter 5 onwards has to be interpreted keeping these limitations in mind.

CHAPTER-5

PERSONAL, ACADEMIC & FAMILY BACKGROUND

5.1 State-wise Distribution of Respondents

As mentioned in previous chapter, 656 Junior Research Fellows (JRFs) pertaining to the years 1996 - 1999 and 1173 JRFs pertaining to the years 2000-2001 sent in their completed questionnaires. State-wise distribution of these respondents is shown in the following Tables.

5.1.1 Table 5.1 shows that maximum number of JRFs participated from eight states. Their state-wise position in descending order is Kerala (118), West Bengal (98), Andhra Pradesh (89), Tamil Nadu (78), Uttar Pradesh (71), Maharashtra (48) Karnataka (26) and Delhi (26). The remaining 14 states have respondents equal to or less than 16. Another important aspect which comes to notice is that 311 (47.4%) respondents participated in this study from the four southern states.

Table 5.1
State-wise Distribution of Respondents of 1996 - 1999

S.No.	State State	No. of JRFs	%age
1.	Andhra Pradesh	89	13.56
2.	Assam	3	0.46
3.	Bihar	15	2.29
4.	Chandigarh	3	0.46
5.	Delhi	26	3.96
6.	Gujarat	16	2.44
7.	Haryana	4	0.61
8.	Himachal Pradesh	6	0.91
9.	Jammu & Kashmir	3	0.46
10.	Karnataka	26	3.96
11.	Kerala	118	17.99
12.	Madhya Pradesh	12	1.83
13.	Maharashtra	48	7.32
14.	Meghalaya	4	0.61
15.	Orissa	4	0.61
16.	Pondicherry	3	0.46
17.	Punjab	10	1.52
18.	Rajasthan	16	2.44
19.	Tamil Nadu	78	11.89
20.	Uttar Pradesh	71	10.82
21.	Uttaranchal	3	0.46
22.	West Bengal	98	14.94
	Total	656	100.00

5.1.2 The data in Table 5.2 shows that respondent's participation in 10 States is: Kerala (204), West Bengal (178), Andhra Pradesh (134), Tamil Nadu (122), Maharashtra (112), Uttar Pradesh (103), Delhi (70), Karnataka (57), Rajasthan (31) and Gujarat (30). For the remaining States the number of respondents is equal to or less than 21.

Table 5.2 State-wise Distribution of Respondents of 2000-2001

S.No.	State	No. of JRFs	%age
1.	Andhra Pradesh	134	11.42
2.	Assam	8	0.68
3.	Arunachal Pradesh	2	0.17
4.	Bihar	21	1.79
5.	Chandigarh	4	0.34
6.	Chhattisgarh	2	0.17
7.	Delhi	70	5.97
8.	Gujarat	30	2.56
9.	Haryana	9	0.77
10.	Himachal Pradesh	15	1.28
. 11.	Jammu & Kashmir	4	0.34
12.	Jharkand	2	0.17
13.	Karnataka	57	4.86
14.	Kerala	204	17.39
15.	Madhya Pradesh	15	1.28
16.	Maharashtra	112	9.55
17.	Meghalaya	5	0.43
18.	Orissa	13	1.11
19.	Pondicherry	3	0.26
20.	Punjab	18	1.53
21.	Rajasthan	31	2.64
22.	Tamil Nadu	122	10.40
23.	Uttar Pradesh	103	8.78
24.	Uttaranchal	11	0.94
25.	West Bengal	178	15.17
	Total	1173	100.00

The above given analysis, however, do not lead us to a certainty that JRFs from some states have participated more in number. A little bit of inaccuracy is unavoidable despite best efforts to make these analysis on the basis of the addresses given by respondents i.e. their place of education and present address for communication. Some of them may have even migrated to other states for their higher education or due to transfer etc., of their parents.

5.2 Personal Background

The personal background of Junior Research Fellows is discussed hereunder:

5.2.1 Distribution by sex

The following two Tables indicate the gender position of JRFs who were awarded fellowship during the period 1996 - 1999 and 2000-2001 and have responded to the questionnaires of this study:

Table 5.3
Distribution of JRFs by Sex: 1996 - 1999

Sex	No. of JRFs	%age
Male	453	69
Female	203	31
Total	656	100

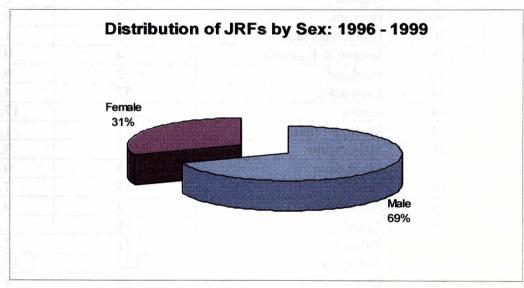


Exhibit-1

Table 5.4
Distribution of JRFs by Sex: 2000 - 2001

Sex	No. of JRFs	%age
Male	773	66
Female	400	34
Total	1173	100

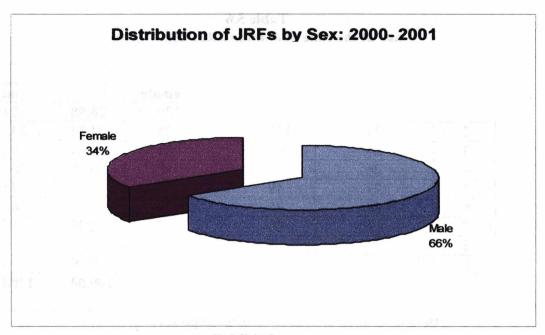


Exhibit-2

5.2.2 Age at the time of joining JRF

The upper age limit for admission to NET is 28 years and relaxable upto 5 years for candidates belonging to SC/ST, Physically Handicapped and Females. The following two Tables indicate their age status at the time of their joining Junior Research Fellowship. The data shows that the maximum number of Junior Research Fellows at the time of their joining fellowship were in the age group of 23-26 years.

Table 5.5
Age at the time of Joining JRF: 1996 - 1999

S.No.	Age (In years)	No. of	JRFs	%	age
skar,	\$ 1	Male	Female	Male	Female
1.	23	130	62	28.70	30.54
2.	24	138	57	30.47	28.08
3.	25	80	33	17.66	16.26
4.	26	44	18	9.71	8.87
5.	27	30	15	6.62	7.39
6.	28	22	12	4.86	5.91
7.	29*	. 6	6	1.32	2.95
8.	30*	2	· -	0.44	-
9.	31*	1	-	0.22	-
	Total	453	203	100.00	100.00
	G. Total	65	6		

^{*}Belong to SC, ST, PH & Women categories

Table 5.6
Age at the time of Joining JRF: 2000 – 2001

S.No.	Age (In years)	No. o	f JRFs	%	age
-		Male	Female	Male	Female
1.	23	224	120	28.98	30.00
2.	24	192	98	24.84	24.50
3.	25	165	81	21.34	20.25
4.	26	77	42	9.96	10.50
5.	27	49	28	6.34	7.00
6.	28	35	24	4.53	6.00
7.	29*	20	7	2.59	1.75
8.	30*	8	_	1.03	-
9.	31*	3	-	0.39	-
	Total	773	400	100.00	100.00
	G. Total	1:	173		

^{*}Belong to SC, ST, PH & Women categories

5.2.3 Marital Status

Tables 5.7 and 5.8 hereunder present information about the marital status of the Junior Research Fellows as in the year 2005 i.e. the year in which most of them filled in the questionnaires. The data shows that the marital status of male JRFs of 1996 - 1999 is about 72 per cent and female is about 59 per cent. The marital status of male and female JRFs of 2000 - 2001 is about 56 per cent and 51 per cent respectively.

Table 5.7 Marital Status of JRFs: 1996 – 1999

Status	No. o	of JRFs	%	age
	Male	Female	Male	Female
Married	325	119	71.74	58.62
Unmarried	128	84	28.26	41.38
Total	453	203	100.00	100.00

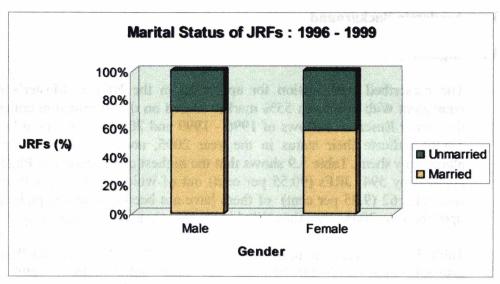


Exhibit-3

Table 5.8
Marital Status of JRFs: 2000 - 2001

Status	No. o	No. of JRFs		%age	
75,15	Male	Female	Male	Female	
Married	435	206	56.27	51.50	
Unmarried	338	194	43.73	48.50	
Total	773	400	100.00	100.00	

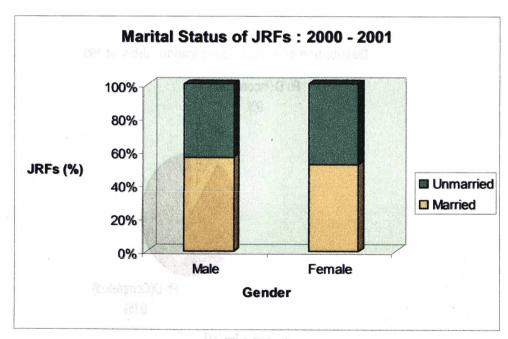


Exhibit-4

5.3 Academic Background

5.3.1 Highest Qualification

The prescribed qualification for appearing in the NET is Master's degree or equivalent with minimum 55% marks. Based on the information collected from the Junior Research Fellows of 1996 - 1999 and 2000 - 2001, the following two Tables indicate their status in the year 2005, about the highest qualification attained by them. Table 5.9 shows that the highest qualification of Ph.D has been attained by 594 JRFs (90.55 per cent) out of which 39 went for Post Doctoral research. 62 (9.45 per cent) of them have not been able to complete their Ph D uptil the year 2005 when they filled in the questionnaire for this study.

Table 5.10 indicates that none of the JRFs of 2000 - 2001 went for Post Doctoral research whereas 570 (48.59 per cent) completed their Ph.D. 603 (51.41 per cent) were still continuing with their Ph.D work.

Table 5.9
Distribution of Highest Qualification: JRFs of 1996 - 1999

S.No.	Qualification	No. of JRFs	%age
1.	Ph.D (Completed)	594*	90.55
2.	Ph D (Incomplete)	62	9.45
	Total	656	100.00

^{*} Inclusive of 39 who completed Ph.D. went for Post-Doctoral research

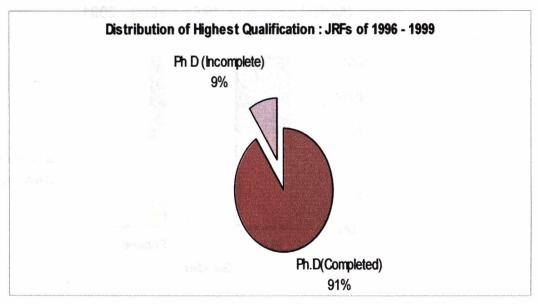


Exhibit-5

Table 5.10

Distribution of Highest Qualification: JRFs 2000 - 2001

S.No.	Qualification	No. of JRFs	%age
1.	Ph.D (Completed)	570	48.59
2.	Ph D (Continuing)	603	51.41
	Total	1173	100.00

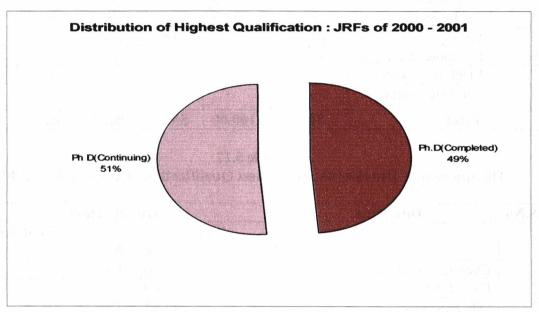


Exhibit - 6

5.3.2 Discipline-wise Highest Qualification

Tables 5.11 & 5.12 present data of 1996 - 1999 and 2000 - 2001 respectively on discipline-wise distribution of respondents by highest qualification. Data in Table 5.11 concerning the period 1996 - 1999 reveals that by the year 2005, discipline wise the highest qualification achieved was by 264 JRFs in Life Sciences (18+246) followed by 153 JRFs (6+147) in Chemical Science and 116 JRFs (10+106) in Physics. The trend remained similar for the period 2000-2001 as may be seen from Table 5.12.

Table 5.11
Discipline-wise Distribution by Highest Qualification: JRFs of 1996 - 1999

S.No	Discipline			Qualif	fication		
		Post- Doctorate		Ph.D		Ph.D Incomplete	
		No.	%age	No.	%age	No.	%age
1.	Chemical Science	6	15.39	147	26.49	15	24.20
2.	Earth Sciences	3	7.69	21	3.78	2	3.23
3.	Life Sciences	18	46.15	246	44.32	22	35.48
4.	Mathematics	2	5.13	35	6.31	8	12.90
5.	Physics	10	25.64	106	19.10	10	16.13
6.	Computer Sc. Appn	-	_	-	-	3	4.84
7.	Electronic Science	-	_	-	_	1	1.61
8.	Forensic Science	-	-	-	-	1	1.61
	Total	39	100.00	555	100.00	62	100.00

Table 5.12
Discipline-wise Distribution by Highest Qualification: JRFs of 2000 – 2001

S.No	Discipline	Qualification			
	ru dra	Ph.D		Ph.I	Continuing
		No.	%age	No.	%age
1.	Chemical Science	140	24.56	124	20.57
2.	Earth Sciences	21	3.69	16	2.65
3.	Life Sciences	282	49.47	356	59.04
4.	Mathematics	33	5.79	33	5.47
5.	Physics	94	16.49	74	12.27
6.	Computer Sc. & Applications	-	-	-	=
7.	Electronic Science	-	-	-	-
8.	Forensic Science	-			-
	Total	570	100.00	603	100.00

5.4 Membership of Professional Bodies

168 JRFs have mentioned that they were having membership of various professional bodies. The names of these professional bodies are listed in Annex.III.

5.5 Family Background

5.5.1 Parents Background

Transactional Analysis Theory of Motivational Behaviour states that parents ego and their background has a stimulus impact on the children from their very

childhood. Parents play a dominant role in the selection of a career by their children. With this view, the data on the parents background was collected and the same is shown in the following two Tables.

Table 5.13 indicates that parents of 393 (59.91 per cent) respondents belong to urban and 263 (40.09 per cent) to rural background. The average variation is to the extent of 10 per cent.

Table 5.13

Parents Background of JRFs: 1996 - 1999

Background	No. of JRFs	Percentage
Urban	393	59.91
Rural	263	40.09
Total	656	100.00

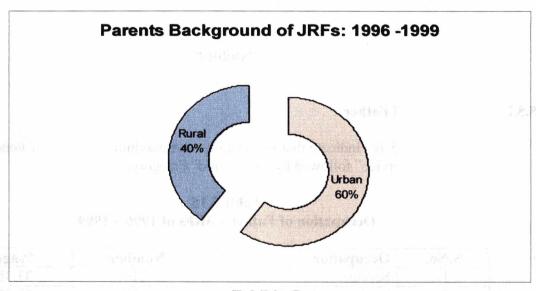


Exhibit -7

Table 5.14 shows that parents of 668 (56.95 per cent) JRFs belong to urban and of 505 (43.05 per cent) JRFs to rural background. These figures indicate a pertinent motivational impact of both urban and rural parents on their children to take up higher education such as junior research fellowship for doing Ph.D. The average variation is only to the extent of 7 per cent between them.

Table 5.14
Parents Background of JRFs: 2000- 2001

Background	No. of JRFs	Percentage
Urban	668	56.95
Rural	505	43.05
Total	1173	100.00

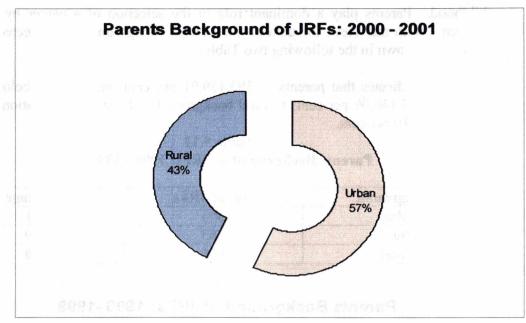


Exhibit-8

5.5.2 Occupation of Father

Table 5.15 & 5.16 indicate that occupation-wise maximum number of fathers of JRFs are in "service" followed by the "retired' Category.

Table 5.15 Occupation of Father – JRFs of 1996 – 1999

S.No.	Occupation	Number	%age
1.	Service	219	33.38
2.	Professional	69	10.52
3.	Business	44	6.71
4.	Agriculture	132	20.12
o 5. may	Retired	165	25.15
6.	Household	15	2.29
7.	Others (Expired)	12	1.83
	Total	656	100.00

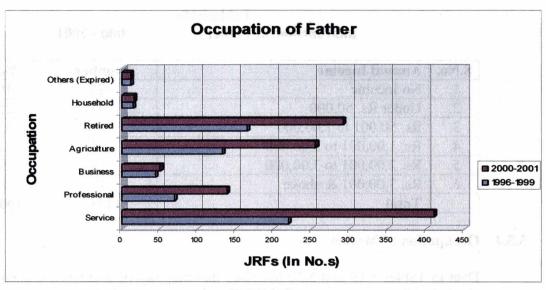


Exhibit-9

Table 5.16
Occupation of Father – JRFs of 2000-2001

S.No.	Occupation	Number	%age
1.	Service	410	34.95
2.	Professional	138	11.77
3.	Business	51	4.35
4.	Agriculture	255	21.74
5.	Retired	291	24.81
6.	Household	16	1.36
7.	Others (Expired)	12	1.02
	Total	1173	100.00

5.5.3 Annual Income of Father

As may be seen from Tables 5.17 and 5.18, there is very little variation in the income status of fathers of JRFs of 1996 - 1999 and 2000-2001.

Table 5.17 Annual Income of Father – JRFs of 1996 – 1999

S.No.	Annual Income	Number	%age
. 1.	No Income	80	12.20
2.	Under Rs. 50,000	174	26.52
3.	Rs. 50,001 to 1,00,000	206	31.40
4.	Rs. 1,00,001 to 2,00,000	125	19.06
5.	Rs. 2,00,001 to 3,00,000	59	8.99
6.	Rs. 3,00,001 & above	12	1.83
greet.	Total	656	100.00

Table 5.18 Annual Income of Father – JRFs of 2000 - 2001

S.No.	Annual Income	Number	%age
1.	No Income	120	10.23
2.	Under Rs. 50,000	296	25.23
3.	Rs. 50,001 to 1,00,000	365	31.12
4.	Rs. 1,00,001 to 2,00,000	264	22.51
5.	Rs. 2,00,001 to 3,00,000	116	9.89
6.	Rs. 3,00,001 & above	12	1.02
	Total	1173	100.00

5.5.4 Occupation of Mothers

Data in Tables 5.19 and 5.20 indicates that majority of mothers are attending to "household" activities i.e. 421 (64.18 per cent) and 708 (60.36 per cent) respectively in respect of JRFs of 1996 - 1999 and 2000-2001. There are only 66 (10.06 per cent) and 143 (12.19 per cent) mothers in "service" respectively for the above mentioned periods.

Table 5.19 Occupation of Mother – JRFs of 1996 - 1999

S.No.	Occupation	Number	%age
1.	Service	66	10.06
2.	Professional	22	3.35
3.	Business	12	1.83
4.	Agriculture	89	13.57
5.	Retired	31	4.72
6.	Household	421	64.18
7.	Others (Expired)	15	2.29
	Total	656	100.00

Table 5.20 Occupation of Mother – JRFs of 2000 - 2001

S.No.	Occupation	Number	%age
1.	Service	143	12.19
2.	Professional	48	4.09
3.	Business	26	2.22
4.	Agriculture	147	12.53
5.	Retired	66	5.63
6.	Household	708	60.36
6.	Others (Expired)	35	2.98
	Total	1173	100.00

5.5.5 Annual Income of Mother

Income-wise, majority of the mothers do not have any income. However, 201(107+94) and 381 (220+161) of them are in the annual income range of under Rs 50,000/- and Rs 50,001/- to 1,00,000/- respectively, as can be seen from Table 5.21 and 5.22. Their income status is lower than the males.

Table 5.21 Annual Income of Mother – JRFs of 1996 - 1999

S.No.	Annual Income	Number	%age
1.	No Income	440	67.07
2.	Under Rs. 50,000	107	16.31
3.	Rs. 50,001 to 1,00,000	94	14.33
4.	Rs. 1,00,001 to 2,00,000	12	1.83
5.	Rs. 2,00,001 to 3,00,000	3	0.46
6.	Rs. 3,00,001 & above		
	Total	656	100.00

Table 5.22 Annual Income of Mother – JRFs of 2000-2001

S.No.	Annual Income	Number	%age
1.	No Income	775	66.07
2.	Under Rs. 50,000	220	18.76
3.	Rs. 50,001 to 1,00,000	161	13.72
4.	Rs. 1,00,001 to 2,00,000	15	1.28
5.	Rs. 2,00,001 to 3,00,000	2	0.17
6.	Rs. 3,00,001 & above	-	-
	Total	1173	100.00

CHAPTER-6

FELLOWSHIP TENURE

6.1 Term as JRF and SRF

As stated earlier in Chapter 1 that the term of a Junior Research Fellow (JRF) is 2 years and on completion of this duration, his/her research progress/achievements are assessed by an Expert Committee through an interview. Those who qualify through this process are recommended for upgradation as Senior Research Fellow (SRF). If the Committee does not recommend upgradation, the junior research fellowship is either terminated or the fellow is asked to continue as JRF for the 3rd year. The progress of research work of such JRFs is assessed again at the end of 3rd year following the same procedure as at the end of 2nd year. If the work of the JRF is still not found satisfactory for upgradation, the fellowship is terminated. The total tenure as JRF plus SRF is 5 years.

6.2 Joining of Fellowship

In all 3923 and 4397 students respectively qualified NET conducted half-yearly in June and December every year during 1996 - 1999 and 2000-2001. Specific details about which test of NET and in what subject qualified, have earlier been given in Chapter 3, paragraph 3.2. As qualified fellows are given one year to join their fellowship almost all who have responded to the questionnaire, have stated that they could take up their fellowship in the following year.

6.3 Distribution of Fellowships

Based on the completed questionnaires received, the status about the distribution of fellowship awarded in Science subjects by CSIR and UGC emerges as under:

TABLE 6.1 Distribution of Fellowships

S.No	Organisation	JRFs of 1996-1999		JRFs of	2000-2001
		No	%age	No.	%age
1.	CSIR/UGC - NET*	651	99.24	1173	100.00
2.	UGC NET	5	0.76	-	-
	Total	656	100.00	1173	100.00

^{*}includes qualified Fellows passed on by CSIR to UGC for release of fellowship in science subjects.

6.4 Motivation for NET Fellowship

The respondents were asked to indicate as to what motivated them to take up NET fellowship, in response to which the following position has emerged:

Table 6.2
Motivation for NET Fellowship

S.No.	Purpose	JRFs 1996 - 1999		JRFs 2000- 2001		
		No.	%age	No.	%age	
1.	Teaching	168	25.61	330	28.13	
2.	Research	314	47.87	516	43.99	
3.	Teaching &	174	26.52	327	27.88	
	Research: Both					
	Total	656	100.00	1173	100.00	

6.5 Subject-area of Ph.D

Table 6.3 Subject Area of Ph. D

S.No	Subject-Area	JRFs 1	JRFs 1996 - 1999		000- 2001
		No.	%age	No.	%age
1.	Chemical Science	165	25.15	264	22.51
2.	Earth Sciences	26	3.96	37	3.15
3.	Life Sciences	291	44.36	638	54.39
4.	Mathematics	44	6.71	66	5.63
5.	Physics	125	19.06	168	14.32
6.	Computer Sciences & Appn.	3	0.46	-	-
7.	Electronic Sciences	1	0.15	-	-
8.	Forensic Sciences	1	0.15	-	-
	Total	656	100.00	1173	100.00

6.6 Extension and Upgradation Status of JRFs

24 (3.66 per cent) out of the 656 JRFs of 1996 - 1999 and 60 (5.12 per cent) out of the 1173 JRFs of 2000-2001 stated that their term as JRF was extended for another one year. All of them got Senior Research Fellowship after completing their extended term.

6.7 Drop-out Status

The status of drop-outs and the reasons for the same can be seen in the following paragraphs.

6.7.1 Subject-wise distribution of Drop-outs who did not accept fellowship:

<u>1996-1999:</u>	No.	<u>2000-2001:</u>	No.
Chemical Science	116	Chemical Science	180
Earth Sciences	21	Earth Sciences	21
Life Sciences	120	Life Sciences	275
Mathematics	53	Mathematics	35
Physics	109	Physics	50
Computer Sc. & Appn.	2	Computer Sc. & Appn.	_
Electronic Sc.	1	Electronic Sc.	-
Forensic Sc.	_1_	Forensic Sc.	
Total	<u>423</u>		<u>561</u>

Table 6.4
Reasons for not accepting Fellowships: 1996 - 2001

S.No.	Reasons	Response	%age
1.	Was already employed when applied for NET	116	11.79
2.	Got employment in the meanwhile	435	44.21
3.	Decided to pursue another career	282	28.66
4.	Could not get admission in a desired University/Institution/laboratory	75	7.62
5.	Family circumstances	76	7.72
	Total	984	100.00

6.7.2 Subject wise distribution of drop-outs after taking up fellowships:

<u>1996-1999:</u>	No.	<u>2000-2001:</u>	No.
Chemical Science	75	Chemical Science	111
Earth Sciences	12	Earth Sciences	3
Life Sciences	75	Life Sciences	233
Mathematics	35	Mathematics	5
Physics	71	Physics	8
Computer Sc. & Appn.	1	Computer Sc. & Appn.	_
Electronic Sc.	-	Electronic Sc.	_
Forensic Sc.		Forensic Sc.	_
Total	<u> 269</u>	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	360

6.7.3 Year-wise Drop-out Status

Table 6.5 **Drop-out Status of JRFs: 1996 -1999**

S. No.	Year	No. of JRFs	%age
1.	1 st Year	65	24.17
2.	2 nd Year*	185	68.77
3.	3 rd Year	19	7.06
4.	4 th Year	0	_
5.	5 th Year	0	-
	Total	269	100.00

^{*} Terminated after 2 years, are included

Table 6.6
Drop-out Status of JRFs: 2000- 2001

S. No.	Year	No. of JRFs	%age
1.	1 st Year	93	25.83
2.	2 nd Year*	230	63.89
3.	3 rd Year	37	10.28
4.	4 th Year	0	-
5.	5 th Year	0	-
	Total	360	100.00

Terminated after 2 years, are included

6.7.4 Reasons for Drop-out

Table 6.7 Reasons for Drop-out of JRFs: 1996 - 2001

S.	Reasons	Multip	le Response	Multip	le Response
No		JRFs	1996-1999	JRFs	2000-2001
		No.	%age	No.	%age
1.	Lack of proper supervisory guidance	84	15.22	116	11.18
2.	Lack of facilities at the Institution/Laboratory/University etc.	107	19.39	201	19.36
3.	Unavoidable family circumstances	97	17.57	188	18.11
4.	To pursue & avail other career opportunities (1) Scientific (2) Non-Scientific	75 177	13.59 32.06	216 300	20.81 28.90
5.	To avail other Fellowships	12	2.17	17	1.64
	Total	552	100.00	1038	100.00

6.8 Civil Services Competition

After availing Junior Research Fellowships, some of them appeared in the Civil Services Competition. Their position is stated in the following Tables. All of them belong to the drop-out category.

Table 6.8 Competed in Civil Services

S.No.	Status	No. of JR	Fs 1996 - 1999	No. of JRFs 2000- 2001		
		No	%age	No	%age	
1	Yes	33	12.27	75	20.83	
2	No	236	87.73	285	79.17	
	Total	269	100.00	360	100.00	

Table 6.9
Year of Appearing in Civil Services Examination

S.No.	Year	No. of JR	Fs 1996 - 1999	No. of JRFs 2000- 2001		
		No	%age	No	%age	
1	1997	15	45.46	-	-	
2	1998	8	24.24	-	-	
3	1999	10	30.30	-	-	
4	2000	-		35	46.67	
5	2001	-	-	21	28.00	
6	2002	-		19	25.33	
7	2003	-	-	-	1 -	
	Total	33	100.00	75	100.00	

6.8.1. Success in Civil Services Examination

Out of the 33 JRFs of 1996 - 1999 and 75 JRFs of 2000 - 2001 who appeared in Civil Services Examination; only 2 and 4 JRFs respectively were successful and they accepted employment in the civil service.

6.9 Joining Professional Courses

The following Table indicates the position about the junior research fellows who joined professional courses in addition to their fellowship.

Table 6.10 Professional Courses Joined by JRFs of 1996 - 2001

S. No	Course	No. of JRFs	Full Time (FT)	Part Time (PT)	Comp (FT)	oleted (PT)	Not C (FT)	ompleted (PT)
1.	Computer	128	-	128	-	128	-	-
2.	Management	16	-	16	-	14	-	2
3.	Chartered					11 12		Y 12
	Accountancy	10	-	_	-	10	-	_
4.	Any Other	8	-	8	-	8	-	-
	Total	162	-	162	-	160	-	2

6.10 Completion of Ph.D

The following Table shows that 594 (inclusive of 39 Post Doctorates) JRFs of 1996 - 1999 and 570 belonging to the period 2000 - 2001 were successful in completing their Ph.Ds.

Table 6.11 Completion of Ph.D Year-wise

S.No.	Year of Ph.D	JRFs of 199	JRFs of 1996 - 1999		- 2001*
		No. of Ph.Ds	%age	No. of Ph.Ds	%age
1.	2002	193	32.49		- 4
2.	2003	186	31.31	-	-
3.	2004	215	36.20	-	-
4.	2005	_	_	395	69.30
5.	2006	-	-	175	30.70
8.0	Total	594#	100.00	570	100.00

^{*} Filled in questionnaires received uptil September,2006 have been taken into account for this Table.

6.10.1 Reasons for not completing Ph.D

Out of the 656 respondents of 1996 - 1999, 62 of them were not able to complete their Ph.D uptil the year 2005 i.e. the year in which they sent in their completed questionnaire. The reasons stated by them for this status are as under:

- 1. Thesis submitted but yet to be cleared by the Guides.
- 2. Not been able to submit Thesis as the Guides have gone abroad for Conference/Seminars/Visiting Professorship etc.
- 3. Self fell sick for long duration and hence work on Ph.D still continuing.
- 4. While attending to ailing parents, lacked behind in completing Ph.D work.
- 5. Many family problems erupted during the course of Ph.D. work and hence submission of thesis delayed.

^{# 62} JRFs who have not completed their Ph.D are exclusive of this figure: the total being 656.

6.10.2 Benefit from Ph.D Degree

Junior Research Fellows were asked the following questions to assess the help they received by achieving Ph.D degree. The position as emerged is shown in the following Table:

> Table 6.12 Benefit from Ph.D Degree to JRFs

Delicit from I ii.D Degree to ottes							
S.No.	Benefited	No. of	JRFs*	No. of JRFs# 2000-2001			
		1996	- 1999				
		Yes	No	Yes	No		
1.	In getting a job	548	46	471	99		
2.	In getting higher position	40	66	17	23		
3.	In getting post-doctoral		1 .	:	1		
	fellowship	39	17	-	-		
4.	In getting more important						
	Responsibilities	137	12	-	-		
5.	In getting respect from				-1		
	society	548	108	471	99		
6.	Was of no help	108	-	99	-		

^{*}Ph.D completed = 594 & Ph.D incomplete= 62 G. Total = 656 #Ph.D completed = 570 & Ph.D continuing = 603 G. Total = 1173

6.10.3 Fulfilment of Expectations from Ph.D

Table 6.13
Fulfilment of Expectations from Ph.D: JRFs of 1996-2001

S.No.	Expectations Fulfilled	No. of JRFs	%age
1.	Yes	1025	88.06
2.	No	139	11.94
	Total	1164	100.00

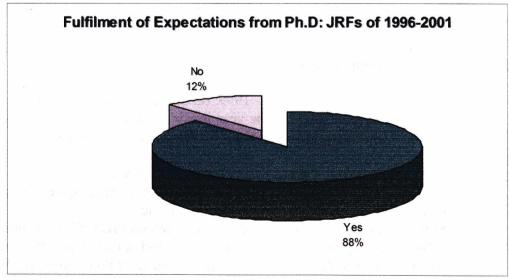


Exhibit-10

6.10.4 Publications/Awards

None of the JRFs have given any information about "awards received". It is, therefore, being considered as 'Nil' information.

Not all the JRFs have given information about the research papers contributed by them. For the period 1996 - 1999 out of 656 JRFs, 594 have completed their Ph.D. However, in all 507 JRFs have given information about the research papers published which is shown in Table 6.14 as under.

Table 6.14 Research Papers Published: JRFs 1996 - 1999

S.No.	No. of	No. of Papers	While doing Ph.D	No. of JRFs	No. of Papers	After completing
	JRFs	published by each	Total Number		published by each	<u>Ph.D</u> Total
		JRF	1 otal i validei		JRF	Number
1.	209	1	209	249	1	249
2.	174	2	348	161	2	322
3.	62	3	186	51	3	153
4.	33	4	132	26	4	104
5.	21	5	105	17	5	85
6.	8	6	48	3	6	18
Total	507		1028	507		931

For the period 2000-2001, out of 1173 JRFs, 570 have completed their Ph.D and 603 are still continuing with their Ph.D studies. In all 890 have given information about the contribution of research papers which is shown in Table 6.15 below.

Table 6.15
Research Papers Published: JRFs 2000-2001

S.No.	No. of JRFs	No. of Papers published by each JRF	While doing Ph.D Total Number	No. of JRFs	No. of Papers published by each JRF	After completing Ph.D Total Number
1.	695	1	695	327	1	327
2.	80	2	160	188	2	376
3.	75	3	225	26	3	78
4.	30	4	120	21	4	84
5.	6	5	30	5	5	25
6.	4	6	24	3	6	18
Total	890		1254	570		908

CAREER PROFILE

7.1 Employment Status after Ph.D Degree

Economic and social development of a country can improve only if its educated workforce can be properly engaged in employment, business or any other income earning activity. Providing employment to higher educated persons is even more important because they spend a large number of years doing hard work in achieving Ph.D. Degree and Post Doctorate research etc. Despite the fact that a large number of JRFs dropped out of the NET fellowship scheme, yet those who carried on have succeeded to a large extent in getting employment. Their employment status is shown in Tables 7.1 & 7.2 which shows that a majority of them have taken up Research jobs followed by Teaching.

Table 7.1 Employment Status after Ph.D : JRFs 1996-1999

S.No.	Employment Type	No. of JRFs	%age
1.	Research	358	60.27
2.	Teaching	151	25.42
3.	IAS & Allied Services	-	-
4.	Banking	9	1.52
5.	Business	6	1.01
6.	Profession	17	2.86
7.	Other	7	1.18
	Employed Total	548	-
	Unemployed	46	7.74
	Grand Total	594	100.00

Table 7.2 Employment Status after Ph.D : JRFs 2000-2001

S.No.	Employment Type	No. of JRFs	%age
1.	Research	350	61.40
2.	Teaching	93	16.32
3.	IAS & Allied Services	-	-
4.	Banking	7	1.23
5.	Business	5	0.88
6.	Profession	8	1.40
7.	Other	8	1.40
1	Employed Total	471	-
	Unemployed	99	17.37
	Grand Total	570	100.00

38

7.2 Sector - wise Employment

The following Tables 7.3 and 7.4 indicate that employment-wise majority of them have been able to get Government jobs followed by Private Sector.

Table 7.3 Sector-wise Employment of Ph.Ds: 1996-1999

S.No.	Sector	No. of JRFs	%age
1.	Government	321	58.58
2.	Public	62	11.31
3.	Private	134	24.45
4.	Self Employed	17	3.10
5.	Business	6	1.10
6.	Abroad	8	1.46
	Total	548*	100.00

^{*594 - 46} unemployed = 548

Table 7.4
Sector-wise Employment of Ph.Ds: 2000-2001

S.No.	Sector	No. of JRFs	%age
1.	Government	284	60.29
2.	Public	46	9.77
3.	Private	120	25.48
4.	Self Employed	8	1.70
5.	Business	5	1.06
6.	Abroad	8	1.70
	Total	471#	100.00

#570 - 99 unemployed = 471

7.3 Subject-wise & Duration-wise placement

One of the objectives of the study has been to find out that subject-wise which subject provided fast and more job opportunities to research fellows viz-a-viz to see in how much time they got their first placement after completion of Ph.D. Data on this is presented in the following Tables 7.5 and 7.6.

These two Tables indicate that majority of them got their first placement within 12 months of their qualifying Ph.D. Apparently, these Tables indicate that Life Sciences provided more job opportunities followed by Chemical Science and Physics whereas in reality this may not work out as a true position. There are limitations to this as the number of respondents and the response rate for all the subjects is not the same.

Table 7.5
Subject-wise & Duration-wise placement: JRFs 1996-1999

S.No.	Subject		Duration in Months			
.700	1. 11. 12. 12. 12. 12. 12. 12. 12. 12. 1	0-6	6-12	12-18	18-24	
1.	Chemical Science	66	62	4	3	135
2.	Earth Science	8	8	4	2	22
3.	Life Sciences	170	66	6	2,	244
4.	Mathematics	26	8	2	1	37
5.	Physics	57	40	6	2	105
6.	Computer Sc. & Appln.	2	1	-	٠-	3
7.	Electronic Science	-	1	-	-	1
8.	Forensic Science	-	1	-	-	1
	Total				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	548

Table 7.6
Subject-wise & Duration-wise placement: JRFs 2000-2001

S.No.	Subject	Duration in Months				
	_	0-6	6-12	12-18	18-24	
1.	Chemical Science	57	55	3	2	117
2.	Earth Science	8	6	1	1	16
3.	Life Sciences	161	69	2	1	233
4.	Mathematics	21	4	1	1	27
5.	Physics	44	30	2	2	78
6.	Computer Sc. & Appln.	-	-	-	-	-
7.	Electronic Science	-	-	-	-	-
8.	Forensic Science	-	-	-	-	-
	Total				1 - 2	471

7.4 Income Statistics of Ph.Ds

Tables 7.7 and 7.8 indicate that income-wise the majority of Ph.Ds are in the annual income range of Rs. 1-2 lakhs followed by a significant number in the range of Rs. 2-3 lakhs and above.

Table 7.7
Annual Income of Ph.Ds: JRFs of 1996-1999

S.No.	Annual Income	No. of JRFs	%age
1.	Under Rs 50,000	-	-
2.	Rs 50,001 to 1,00,000	31	5.66
3.	Rs 1,00,001 to 2,00,000	400	72.99
4.	Rs 2,00,001 to 3,00,000	100	18.25
5.	Rs 3,00,001 to 4,00,000	8	1.46
6.	Rs 4,00,001 to 5,00,000	6	1.09
7.	Rs 5,00,001 to 6,00,000	3	0.55
	Total	548**	100.00

^{**} 594 - 46 unemployed = 548

Table 7.8
Annual Income of Ph.Ds of 2000-2001

S.No.	Annual Income	No. of JRFs	%age
1.	Under Rs 50,000	-	-
2.	Rs 50,001 to 1,00,000	51	10.83
3.	Rs 1,00,001 to 2,00,000	359	76.22
4.	Rs 2,00,001 to 3,00,000	54	11.47
5.	Rs 3,00,001 to 4,00,000	3	0.64
6.	Rs 4,00,001 to 5,00,000	2	0.42
7.	Rs 5,00,001 to 6,00,000	2	0.42
	Total	471@	100.00

@ 577 - 99 unemployed = 471

7.5 Academic Specialization & its linkage with present job

Out of the 1019 (548+471) employed follows 714 (70.06 per cent) have stated that they have been in a position to utilize their academic specialization in their jobs. However, 305 (29.94 per cent) of them have stated that they have not been able to get opportunity to make use of their academic specializations.

7.6 Special Incentive after Ph.D

None of the fellows received any special incentive in their job after getting doctorate degree.

7.7 Job Satisfaction

Tables 7.9 & 7.10 indicate that 300 (54.74 per cent) Ph.Ds of 1996 - 1999 and 246 (52.23 per cent) Ph.Ds of 2000-2001 are satisfied with their jobs. The data shows that dissatisfaction level is quite high amongst the employed Ph.Ds.

Table 7.9

Job Satisfaction of Ph.Ds: JRFs of 1996 - 1999

S.No.	Satisfaction	No. of JRFs	%age
1.	Yes	300	54.74
2.	No	222	40.51
3.	No Comments	26	4.75
	Total	548	100.00

Table 7.10
Job Satisfaction of Ph.Ds: JRFs 2000-2001

S.No.	Satisfaction	No. of JRFs	%age
1.	Yes	246	52.23
2.	No	196	41.61
3.	No Comments	29	6.16
	Total	471	100.00

7.7.1 Reasons for dissatisfaction

- 1. There is no security of job.
- 2. Present job has no relationship to the studies pursued.
- 3. After working so hard for over 5 years to get Ph.D degree, short-term assignments of 6 months to 1 year are provided and the remuneration paid-out is too little.
- 4. There is no recognition to hard work you do on the research project and you stagnate in a post for years.
- 5. Remaining unemployed even after completing Ph.D has rather become a curse than getting any respect or satisfaction.
- 6 Engineering degree holders are considered better and paid better than Ph.D.
- 7. After doing Ph.D, the job provided is that of Research/Technical Assistant and does not meet financial need and the job satisfaction.
- 8. Universities, Institutions and Laboratories prefer and provide jobs to their own students and NET fellows are avoided. There is no compulsion on them to recruit NET fellows.
- 9. Though employed as Scientist yet the work being done is not innovative.
- 10. Any innovative idea given to seniors is either not accepted or is misused by them by presenting the same as their own.
- 11. There is not much importance given to R&D in our country and therefore qualified Ph.Ds have to waste their time in doing routine kind of research.
- 12. The research work being attended has commercial benefits for the employer which does not provide job satisfaction to the researcher.

CHAPTER-8

VIEWS OF ACADEMICIANS/RESEARCH GUIDES ON NET

To obtain expert comments/suggestions on the NET system, Questionnaire 3 was sent to 100 academicians/research supervisors/senior scientists working with and/or associated with universities, research organizations all over India. 53 completed Questionnaires were received from them. Almost all of them have stated that NET is a very good system and needs to be continued. However, few specific comments made by some of them are given below in brief.

- 1. The introduction of NET system as a qualifying examination for Junior Research Fellowship and enhancement of fellowship amount by 60 per cent by CSIR and the UGC is a right step. Students who were earlier not interested have been attracted towards research and this has helped poor students too. However, there is a need to review, the way the research is done and Ph.Ds are awarded in our institutions.
- 2. Based on the recommendations of Prof. Balchandra Mungakar's Committee report, UGC have already revised the qualifications for recruitment of the teachers in the universities and colleges. It has been recommended that now onwards M. Phil/Ph.D will be considered as an alternative to NET/SLET. This may give rise to mad race for acquiring research degrees, due to which quality of research may suffer. Already the quality of research carried out in the universities has gone down. There is a need to try and revamp the NET instead of seeking to do away with it. NET can be broad-based so as to assess teaching capability and research aptitude.
- 3. NET certifies a student to be eligible for lectureship and to carry out research as a Junior Research Fellow. A lecturer and/or a JRF who clears NET consisting of various disciplines such as botany, chemistry, zoology, microbiology, biotechnology, biochemistry, physics, mathematics and computer science is certainly in a better position to teach or do research. However, students failing to qualify the NET should not be considered unfit for research. Ph.D registration is open without any test or examination in many universities in India and many of these unsuccessful students have made use of this mode for their Ph.Ds.
- 4. Due to National Eligibility Test (NET), the number of post graduate students opting for Ph.D has gone up. However, many of them are really not having aptitude and a knack for science. The job opportunities are continuously shrinking and even those students who have interest in science end up doing Ph.D. without any job guarantee for them. To ensure quality there is a need to filter the NET system so that only students with scientific aptitude make a foray in Ph.D

- 5. A good research scholar largely contributes quality to his Ph. D. work through his various quality attributes. A research scholar must have an inquisitive mind and sound knowledge of his subject. The scholar should be intelligent, methodical and hard working. NET should continue to check these quality attributes in order to create a talented pool of scientists in India.
- 6. Clearing NET is not difficult if one has in-depth knowledge of the concerned subject at the graduate and post-graduate levels. Contrary to this, a view is expressed that an average preparation of the Master's degree course is not enough and there is a need to prepare separately for NET. Such views apart, there is always a need to prepare for appearing in an examination. NET should continue in its present form and there seems to be no better alternative to this.
- 7. Students should lay their emphasis on NET syllabus and go through the UGC model question papers. These papers are available from the National Institute of Science Communication and Information Resources (NISCAIR).
- 8. To the conception that "Fellowship" is used by some fellows as a spring-board for preparation to appear in competitive examinations for jobs, the response from scholars is a mixed one. 53 scholars responded to the Questionnaire and all of them have agreed to the conception. 35 of them have expressed their view, that there being no guarantee of jobs after completing Ph.D in 5 to 6 years time, students tend to misuse the fellowship. 18 scholars have expressed a view that misuse of fellowship by JRFs should be stopped. Those who misuse the fellowship be asked to pay back the fellowship amount with penalty.

CHAPTER-9

AN OVERVIEW ON NET BY JRFs

To obtain frank opinion from JRFs on NET, some open ended questions were asked. Their opinion suggestions and comments have been coordinated/synchronized and are stated hereunder:

Q. Whether NET is a good system for providing fellowships? If, 'Yes', in what way it has benefited you as a recipient of the same.

9.1 NET – A GOOD OR BAD SYSTEM

The following Table indicates that 1646 (90 per cent) of the JRFs consider that NET is a good system. Benefits derived by them are briefly state below.

Table 9.1
NET – A GOOD OR BAD SYSTEM: JRFs of 1996 – 2001

S.No	Response	No. of JRFs*	%age
1.	Good	1646	90.00
2.	Bad	183	10.00
	Total	1829*	100.00

^{* 1996} to 1999 = 656 & 2000-2001=1173 Total: 1829

BENEFITS DERIVED BY JRFs

- 1. NET scheme is very helpful in developing a research career as it provides good exposure to modern research techniques. It has fulfilled our long awaited wish to become a Researcher/Scientist.
- 2. It is the best system to judge the merit of the students and thereby providing fellowships. It has helped the students like us who belong to the needy families to achieve higher education and a career.
- 3. NET offers opportunity to students to pursue research work in their subject of interest in good quality labs in the country without applying any influence and approach.
- 4. NET is an excellent system to recognize, reward and nurture the talent of the students. The possibility of doing innovative research would not have otherwise been possible. It has provided opportunity for an excellent career and respect in society.
- 5. NET is useful in selecting meritorious candidates and helps in curbing the bias attitudes and hindrances generally noticed in selections.

Q. Whether NET system needs to be continued in the present form?

9.2 NET SYSTEM – TO CONTINUE IN PRESENT FORM

The response to this question is indicated in the following Table. Majority of them i.e. 1704 (93.17 per cent) are in favour of continuing NET in its present form and only 45 (2.46 per cent) have desired that it should be discontinued. Many of them have stated that NET questions have high standard as these test the knowledge in the subject as well as the research aptitude of the candidate.

Table 9.2
NET SYSTEM – TO CONTINUE IN PRESENT FORM: JRFs 1996 - 2001

S. No	Response	No. of JRFs	%age
1.	To continue	1704	93.17
2.	Discontinue	45	2.46
3.	No Comments	80	4.37
	Total	1829	100.00

Q. Give your suggestions, if any, for improvement in the NET system.

9.3 SUGGESTIONS – TO IMPROVE NET SYSTEM

The data on this aspect is summarized in the following Table. 1659 (90.70 per cent) JRFs feel that there is no change required in the present NET system. A few of them i.e. 170 (9.30 per cent) feel that there is a need to improve it steadily so as to groom young scientists to international standards. Top meritorious fellows be given chance to work in India's best laboratories.

Table 9.3 SUGGESTIONS – TO IMPROVE NET SYSTEM: JRFs 1996 - 2001

S. No	Improvement	No. of JRF	%age
1.	Yes	170	9.30
2.	No	1659	90.70
	Total	1829	100.00

Q. If you have any comments on the pattern of questions set in the test papers of NET system, please state those briefly hereunder:

COMMENTS:

- Analytical ability of the students should be tested in NET. Descriptive
 questions should not be stereotype. Too much emphasis should not be given to
 multiple-choice type. Quality is desirable and not the quantity. No relaxation
 in quality standards should be made for reserved categories except in fee, age
 etc. Otherwise, below standard research fellows and lecturers will be
 produced.
- 2. Equal weightage should be given to organic, inorganic and physical chemistry, which is not done at present.
- 3. Presently, in Earth Science stream, majority of the questions pertain to pure geology. This makes difficult for students of meteorology and oceanography to qualify NET.
- 4. Life Sciences being a broad subject area, the questions should be related to all sub-sections of the subject and not limited only to certain subjects such as genetics, cytology and microbiology.
- 5. Standard of NET for lectureship is lower as the students who earlier failed twice-thrice in combined test of JRF, could clear the same easily for lectureship.
- 6. Test papers of NET should lay stress on testing logical reaction to problems in the subject, apart from fundamentals, as the research is mainly analytical.
- Q. There is a conception that "Fellowship" is used by some fellows as a spring-board for preparation to appear in competitive exams., for jobs. Do you agree with the conception and feel, such a violation be stopped? Please give your suggestions/comments.

9.4 CONCEPTION ABOUT FELLOWSHIP VIOLATION

The replies to this question have been consolidated and presented in the following Table:

Table 9.4 CONCEPTION ABOUT FELLOWSHIP VIOLATION; JRFs 1996 - 2001

S. No	Response	No. of JRFs	%age
1.	Agree	1097	59.98
2.	Disagree	548	29.96
3.	No Comments	184	10.06
	Total	1829	100.00

SELECTED COMMENTS & SUGGESTIONS:

- 1. CSIR/UGC should put a restriction on the candidates that after accepting junior research fellowship they will not be allowed to appear in a competitive examination. They should get a bond signed in this regard from the fellows. Anyone found violating should be debarred from the fellowship permanently and be asked to deposit back the fellowship amount with penalty.
- 2. Certainly, some of the fellows take it as a stop-gap arrangement and use the fellowship money for preparing themselves for competitive examinations. This should be stopped.
- 3. Such violations do happen when Guides/Supervisors are not in proper touch of the students and do not continuously check the progress reports of the fellows. If the progress is not satisfactory they can try to find out as to whether the fellow is spending his/her time in preparation for competitive examinations. They can have a better check on this violation and stop it.
- 4. A NET fellow should continue to get his fellowship amount even after completing his/her Ph.D till the time he/she gets employment. This would curtail the violation.
- 5. It would be difficult to stop such violation as there is no job surety after completing Ph.D. Jobs should be assured to NET fellows who complete their Ph. D.
- 6. NET fellows should be given financial guarantee that they can go for Post Doctoral studies after completing their Ph. D.
- 7. It would be considered a violation only if there is a job guarantee after Ph.D. Otherwise, selecting a profession or a career is a fundamental right of a candidate and if a fellow appears in competitive examination, he/she should not be stopped to do so.
- 8. For appearing in competitive examinations some fellows become overage by the time they complete their Ph.D. Since there is no job guarantee after doing Ph.D, there is no harm if they appear in competitive examinations and get selected.
- 9. NET fellows loses his interest in research field when he finds less brilliant classmates settled in good jobs. Therefore, he/she tends to violate the fellowship and tries to find a good job by appearing in competitive exams.

- 10. If Government really wishes to use the talent of NET Research Fellows, it should create an Indian Scientific Cadre Service similar to IAS which will certainly provide job assurance to fellows and stop the violation.
- Q. Give your comments & suggestions frankly on any aspect(s) of "NET Fellowship", which may not have been covered in this questionnaire.
 - 1. After completion of Ph.D, each fellow should be given an independent project related to his/her field of research which should be useful to our national cause and be considered as post-doctoral research work.
 - 2. It should be made mandatory for JRFs to publish at least three papers in the reputed international journals before submission of Ph.D Thesis.
 - There should be an annual field-wise educational camp in which the NET fellows and the scientists from various universities and laboratories should meet and discuss their Ph. D project.
 - 4. NET should be made mandatory for lectureship. Exemption from NET will be injustice to candidates who take this exam.
 - 5. There should be post-doctoral opportunities along with financial assistance for NET qualified JRFs.
 - 6. Fellows should be given annual grant for books in addition to annual contingency grant especially to those coming from poor families.
 - Unlike UGC fellows, CSIR fellows are not compensated for staying in university hostels and they spend money on hostel rent and mess bills. This should be looked into.
 - 8. The timing of the NET result does not match with the admission timings of many of the top institutes. This should be looked into.
 - 9. CSIR/UGC should have a grievance cell where fellows can register their grievances about any irregularity or conduct of the Ph.D Supervisor, Department or Institute. NET fellows are left with no defense against the partisan whims of their Ph.D supervisors and draconian rules of their Institutes.
 - 10. The fellowship grant should directly be sent to the joint account of Research Fellows and the Guide. In the present status the fellow has to spend much of his/her time in getting fellowship amount from the Laboratory, University, Institution etc., with whom he/she is affiliated for doing Ph.D.

- 11. Many of the Universities, Institutions and Laboratories either lack in having proper infrastructural facilities or do not allow NET fellows to use the same on one pretext or the other.
- 12. Guides/Supervisors initially show interest but later on lack in their guidance. There is a need to identify Guides who can properly guide the fellows and have commitment towards national development.

CHAPTER - 10

RECOMMENDATIONS

- 10.1 Research Standard of many State Universities is going down. There is a need to design and develop a "Scientific Research Policy" at Central level in coordination with States to clearly define the concepts and areas of research which are foremost for the development of the country. Various organizations, universities and institutions have their own plans which lead to duplication and replication and waste of money and effort.
- Scholars should not be allowed by universities, institutions and laboratories etc., to do research on worn-out subjects or by reshaping the old themes and ideas.
- 10.3 Research organizations such as CSIR, ICMR, DBT, DST etc., should maintain a regular dialogue with Universities to promote research in niche areas.
- 10.4 Every University and Institution of higher learning should be involved in orientation/faculty development programmes so as to improve their research guidance skills.
- Apart from development of research faculty, there is a pertinent need to update infra-structure. Facilities of established R&D Institutions should be opened to scientific faculty of Universities etc.
- Each Scientific Institution, Laboratory and Ministries of the Government of India should create subject/field-wise an All India Directory of Research Scientists containing their profile in brief with areas of specialization in which they can provide research guidance to students. This can be uploaded as websites and upgraded from time to time depending upon the requisite additions and deletions.
- There is a need to consider formation of an Indian Academic & Scientific Service for providing jobs to the NET qualified Ph.Ds in the research institutions/laboratories and as teachers in colleges and universities etc.
- Fellows who are found meritorious and complete their Ph. D with top quality research work should be given continued financial assistance to carry out post-doctoral research in order to further facilitate in creating a pool of talented scientists in India.

- A Grievance Cell be set up at CSIR and UGC Headquarters to look into the problems and complaints of NET fellows about the maltreatment by the Guides, misuse of funds and scholar's time by Supervisors for their personal work as well as in releasing funds by universities, institutions and laboratories.
- 10.10 Interaction and coordination with the Industry is essential with regard to the kind of research need for potential growth of our country.
- 10.11 Commitment on part of Guides/Supervisors is very important. There is a need to evolve mechanism by which their commitment can be assured and students do not suffer in the mid of their Ph.Ds.

Annex.1

CAREER PROFILE OF NET QUALIFIED RESEARCH FELLOWS: 1996-2001 LOCAL PROJECT ADVISORY COMMITTEE (LPAC)

1. Dr. Rajesh Luthra Chairman Head-HRD Group Council of Scientific & Industrial Research (CSIR) CSIR Complex, Pusa, New Delhi - 110 012 2. Mr. Rakesh Chetal Member Adviser-NSTMIS Division Department of Science & Technology Technology Bhawan, New Delhi - 110016 3. Ms. Namita Gupta Member Scientist 'E', NSTMIS Division, Department of Science & Technology Technology Bhawan, New Delhi - 110 016 4. Mr. Vijay Bharat Member Director (T) Department of Secondary & Higher Education Ministry of HRD, Shastri Bhawan, Rajendra Prasad Road, New Delhi - 110 001 5. Dr Harish K. Saxena Member Professor Moti Lal Nehru College **Delhi University** New Delhi - 110 021 6. Dr. M. V. Krishnaswamy Member Joint Secretary **UGC-NET Bureau** South Campus (Delhi University) New Delhi - 110 021 7. Dr. P. Venkateswara Rao Member Adviser - RID All India Council for Technical Education NBCC Building, East Tower, 4th Floor Bhisham Pitamah Marg, Pragati Vihar New Delhi - 110 003 8. Dr (Ms) Tripti P. Desai Member Professor (OB) Institute for Integrated Learning in Management (IILM) Lodhi Institutional Area, Lodhi Road New Delhi - 110 003 9. Prof Y. L. Nangia Member Director **Project Director** Manpower Management Centre 12, DDA Commercial Complex, Munirka New Delhi - 110 067

NET SUBJECTS OF UGC WITH CODE NUMBERS

- 01 Economics/RuralEconomics/Co-operation/Demography/Development Planning/Development Studies/Econometrics/Applied Economics/Development Economics/Business Economics
- 02 Political Science
- 03 Philosophy
- 04 Psychology
- 05 Sociology
- 06 History
- 07 Anthropology
- 08 Commerce
- 09 Education
- 10 Social Work
- 12 Home Science
- 14 Public Administration
- 15 Population Studies
- 16 Music
- 17 Management (including Business Administration Management/Marketing Management/Industrial Relations and Personnel Management/Personnel Management/Financial Management/Co-operative Management)
- 18 Maithili
- 19 Bengali
- 20 Hindi
- 21 Kannada
- 22 Malayalam
- 23 Oriya
- 24 Punjabi
- 25 Sanskrit
- 26 Tamil
- 27 Telugu
- 28 Urdu
- 29 Arabic
- 30 English
- 31 Linguistics
- 32 Chinese
- 33 Dogri
- 34 Nepali
- 35 Manipuri
- 36 Assamese
- 37 Gujarati
- 38 Marathi
- 39 French
- 40 Spanish
- 41 Russian
- 42 Persian
- 43 Rajasthani
- 44 German

- 45 Japanese
- 46 Adult Education/Continuing Education/Andragogy/Non Formal Education
- 47 Physical Education
- 49 Arab Culture and Islamic Studies
- 50 Indian Culture
- 55 Labour Welfare/Personnel Management/Industrial Relations/Labour and Social Welfare/Human Resource Management
- 58 Law
- 59 Library and Information Science
- 60 Buddhist, Jaina, Gandhian and Peace Studies
- 62. Comparative Study of Religions
- 63 Mass Communication and Journalism
- 65 Performing Art Dance/Drama/Theatre
- 66 Museology and Conservation
- 67 Archaeology
- 68 Criminology
- 70 Tribal and Regional Language/Literature
- 71 Folk Literature
- 72 Comparative Literature
- 73 Sanskrit traditional subjects (including Jyotisha/Sidhanta Jyotish/Navya Vyakarna/Vyakarna/Mimansa/Navya Nyaya/Sankhya Yoga/Tulanatmaka Darshan/Shukla Yajurveda/Madhav Vedant/Dharmasasta/Sahitya/Puranotihasa/Agama)
- 74 Women Studies
- 79 Visual Art (including Drawing and Painting/Sculpture Graphics/Applied Art/History of Art
- 80 Geography
- 81 Social Medicine and Community Health
- 82 Forensic Science*
- 83 Pali
- 84 Kashmiri
- 85 Konkani
- 87 Computer Science and Applications*
- 88 Electronic Science*
- 89 Environmental Sciences*
- 90 Politics (including International Relations/International Studies including Defence/Strategic Studies, West Asian Studies/South East Asian Studies, African Studies, South Asian Studies, Soviet Studies, American Studies)
- 91 Prakrit
- 92 Human Rights and Duties (The candidates who have passed any of the Masters Degree examination in Political Science, Sociology, Social Work, Public Administration and Law are eligible to appear in this subject)
- 93 Tourism Administration and Management
- * The present study is concerned only with the science subjects for which the NET is conducted by CSIR. However, these 4 subjects for which UGC conducts the NET examination, have been included in the scope of the present study.

Annex.III

MEMBERSHIP OF PROFESSIONAL BODIES

S.No.	Names of Professional Bodies	No. of JRFs
1.	Acoustical Society of India	(1)
2.	Aeronautical Society of India	(2)
3.	All India Federation of University & College Teachers	(1)
4.	All India Association of Teacher Educators	(2)
5.	American Association for Cancer Research	(1)
6.	American Chemical Society	(1)
7.	American Geophysical Union	(2)
8.	American Physiological Society	(2)
9.	American Society for Cell Biology	(1)
10.	American Thyroid Association	(1)
11.	Association for Cell & Chromosome Research	(1)
12.	Association for Food Scientists & Technologists	(3)
13.	Association for Microbiologists of India	(11)
14.	Bioencapsulation Research Group, France	(1)
15.	Bioinformatics Society of India	(1)
16.	Biosensor Society of India	(1)
17.	Botanical Society of India	(1)
18.	British Society for Development Biology	(1)
19.	Calcutta Mathematical Society	(2)
20.	Chemical Research Society of India	(6)
21.	Crystal Growth Centre	(1)
22.	Electrochemical Society of India	(1)
23.	European Federation of Biotechnology	(1)
24.	European Society for Mathematical Biology	(1)
25.	Geographical Society of India	(3)
26.	Geological Society of India	(1)
27.	Green Earth Foundation	(1)
28.	Indian Association for the Cultivation of Science	(4)
29.	Indian Association for the Study of Traditional Asian Medicine	4 7 7
30. 31.	Indian Association of Biology Teachers	(2)
31. 32.	Indian Association of Cancer Research	(4)
32. 33.	Indian Association of Chemistry Teachers	(2)
33. 34.	Indian Association of Physics Teachers	(1)
34. 35.	Indian Biophysical Society	(1)
36.	Indian Botanical Society	(1)
30. 37.	Indian Chemical Society Indian Council of Chemistry	(2)
37. 38.	20 - Charles Commander Charles and the selection of the comment of	(3)
39.	Indian Immunology Society Indian Laser Association	(3)
40.	Indian Mathematical Society	(1)
40.	Indian Medical Informatics Association	(3)
42.	Indian Meteorological Society	(1)
43.	Indian Mycological Society	(1)
43. 44.	Indian National Science Congress Association	(1)
45.	Indian Pharmacological Society of India	(6)
45. 46.	Indian Physical Society Indian Physical Society	(1)
40. 47.	Indian Physical Society Indian Physics Association	(1)
47.	Indian Society for Chemical Science	(2)
49.	Indian Society for Magnetic Fluids Research	(1)
47.	menan society for iviagnetic rivids research	(1)

50.	Indian Society for Parasitological	(1)
51.	Indian Society of Analytical Scientists	(2)
52.	Indian Society of Cell Biology	(2)
53.	Indian Society of Chemical Science	(1)
54.	Indian Society of Chemists & Biologists	(1)
55.	Indian Society of Engineering Geology	(1)
56.	Indian Society of Human Genetics	(3)
57.	Indian Society of Plant Breeders	(1)
58 .	Indian Society of Plantation Crops	(2)
59.	Indian Statistical Institute	(1)
60.	Institute of Engineers, India	(2)
61.	International Association of Nanotechnology, U.S.A.	(1)
62.	International Association of Gondwane Research, Japan	(1)
63.	International Environmental Society	(1)
64.	International Frequency Censor Association	(1)
65.	International Society for Conservation of National Resources	(1)
66.	International Society for Herbal Medicine	(1)
67.	International Society of Genetics	(1)
68.	International Society of Gravitational Physiology	(1)
69.	Kerala Mathematical Association	(2)
70.	Laser and Spectroscopic Society of India	(1)
71.	Marine Biological Association of India	(1)
72.	Microwave Photonics Research group	(1)
73.	Mushroom Society of India	(1)
74.	Nagpur University Mathematics Teachers Association	(1)
75.	National Society of Ultrasonic	(1)
76.	Nutrition Society of India	(1)
77.	Operational Research Society of India	(1)
78.	Phypological Society	(1)
79.	Physical Society for Nuclear Radiation Safety	(1)
80.	Society for Marine Biologists	(1)
81.	Society for Polymer Science of India	(1)
82.	Society of Applied Genetics	(1)
83.	Society of Biochemists	(8)
84.	Society of Biological Chemists	(3)
85.	Society of Biological Sciences	(1)
86.	Society of Biotechnologists, India	(8)
87.	Society of Cytogenetics	(1)
88.	Society of Mathematical Biology	(1)
89.	Society of Reproductive Biology & Endocrinology	(1)
90.	Solid State Chemists Association	(1)
91.	SPIE – The International Society of Optical Engineering	(3)
92.	The Genetics Society, U.K.	(1)
93.	Van Sanrakshan Samiti	(1)
94. 05	West Bengal Government College Teachers Association	(1)
95. 06	World Wide Fund – India	(2)
96.	Zoological Society of India	(2)
	Total:	<u>168</u>

QNR.I

MANPOWER MANAGEMENT CENTRE NEW DELHI

(RESPONSE TO THIS QUESTIONNAIRE WILL BE HELD STRICTLY CONFIDENT

This study has been sponsored by the Department of Science & Technol Government of India.

QUESTIONNAIRE

CAREER PROFILE OF NET QUALIFIED RESEARCH FELLOWS: 1996 TO 1999

(Kindly write/fill-up and/or select & tick [$\sqrt{\ }$] your reply, whichever is applicable): [Please do not leave any question unanswered/blank]

I. ACADEMIC & FAMILY BACKGROUND

1.	Your Name:						
	(In Capital Letters)				- * ·		
2.	Date of Birth/Age:						
3.	Sex:	[1]	Male	[2]	Female		
4.	Marital Status (At the time of taking up NET Fellowship):	[1]	Married	[2]	Unmarr	ied	
5.	Category to which you belong:	[1] [3]	General ST	[2] [4]	SC OBC		
6.	Write the State to which you belong:	0.					
7.	Permanent Residential Address:			s de april			
8.	Present Communication Address:						
9.	Your Tel. No:	Mobile	e No				
10	Your F-mail ID:						

11. Research Fellow's Qualification:

<u> </u>			% age/ Grade	wile the second	Scholarship/ Fellowship/ Award(s)
					received
Graduation			1		
			Notes Sala		
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Post- Graduation					
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Ph.D					
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Post-Doctoral	er in the second of the second				
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		2			
Any Other					
Please pecify)	-				
1 2 /					
2. Mem	nbership of Professional Bo	dies:	[1] Yes	[2]	No
2. a) If 'Y	es', please mention the nan	ne(s) of F	Professional F	Body(s) hereunder	••
- 11 1 1-000-				(c)der	-

13.		Family	's Background:			[1]	Urban	l toma	[2]	Rural	
14.		Parent	's Occupation:			Father	<u>r</u>			Mothe	<u>r</u>
						[1] [2] [3] [4] [5] [6] [7]	BUSI AGRI	ESSION NESS CULTU SEHOLI RED	RÉ	[1] [2] [3] [4] [5] [6] [7]	
15.		Parent	's Annual Incom	ne:		Fathe	<u>r</u>			Mothe	<u>r</u>
						[1] [2] [3] [4] [5]	1,00,0 2,00,0	Rs. 1 - 1, 001 - 2, 001 - 3, 001 &	00,000	[1] [2] [3] [4] [5]	
			2.	F	ELLOWS	SHIP T	ENURI	\mathbf{E}			
16.	a)	Which	of the followin	g NET	you quali	fied:					
		[1] [2]	June 1996 Dec 1996	[3] [4]	June 19 Dec 19		[5] [6]	June 1 Dec 1		शि उ	ine 1999 Dec 1999
	b)	In wha	nt subject you qu	alified	the NET:						
		[1] [5] [8]	Chemistry Physics Forensic Sc.	[2] [6] [9]		iter Sc.	[3] [7] ease spe	Life S Electr cify:	onics	Maths	
17.	a)	In whi	ch year you tool	k up Fe	llowship:						
		[1]	1996	[2]	1997		[3]	1998	[4]	1999	[5] 200
		[5]	Did not take [1] To av		owship d r fellowsh					availed):	j. (v.
			[3] To tak [4] Unabl	ke up a le to get	road for hi job: [1] registrati ason, pleas	Scient on for P	ific h.D/Pla	[2]	Non-S	Scientific	
	b)	Which	of the followin	g organ	izations a	warded	Junior 1	Research	Fellows	ship to yo	ou:
			[1] CSIR		[2]	UGC					

	c)	What motivated you to take up NET Fellowship:
		[1] Teaching [2] Research [3] Any Other, please specify:
	d)	Please give below complete name & address of Institution/Laboratory/University etc., where you got your Fellowship affiliated for your research work/Ph.D. and the name(s) of your Supervisor(s)/Guide(s):
18.	a)	State the exact subject-area of your Ph.D (e.g. Biotechnology, Biology, Botony, Zoolgy etc., etc.):
	b)	Mention the title of your research work:
19.	a)	Did you get up-gradation to Senior Research Fellowship after completion of two years research work?
		[1] Yes [2] No
	b)	If 'No', was your term of JRF extended to 3 rd Year?
		[1] Yes [2] No
	c)	If 'Yes', could you get Senior Research Fellowship after the 3 rd Year or was it terminated by the Expert Committee?
		[1] Yes [2] Terminated
20.	a)	Did you drop-out from research work of your own:
		[1] Yes [2] No
	b)	If 'Yes', at what stage you dropped out:
		[1] Ist Yr. [2] 2^{nd} Yr. [3] 3^{rd} Yr. [4] 4^{th} Yr. [5] 5^{th} Yr.
	c)	Tick Mark the reason(s) for your dropping out from the research work?
		[1] Lack of proper supervisory guidance [2] Lack of facilities at the Institution/Laboratory/University etc [3] Unavoidable family circumstances [4] To pursue & avail other career opportunities [1] Scientific [2] Non-Scientific [5] To avail other Fellowships [6] Any other reason(s) please specify:

21.	a)	Did you compete in any Combined Civil Services Exam., or any other co job during your tenure of research fellowship?							competition for	
			[1]	Yes		[2]	No			
	b)	If 'Yes', in w	hich yea	r(s) did y	you appe	ar in the	compe	titive ex	am.?	
			[1]	Year(s):					
	c)	Were you suc	cessful i	n the coi	mpetitiv	e exam.?				
			[1]	Yes		[2]	No			
	d)	If successful, did you accept the job offered to you?								
			[1]	Yes		[2]	No			
22.	a)	During fellowship tenure, did you join any other professional course?								
		[1] Computer [2] Managem [4] Any other, please specify					[3]	Chart	ered Ac	countant
	b)	Nature of the	course?							
		[1]	Full-t	ime	[2]	Part-ti	me			
	c)	Did you comp	olete you	r profess	sional co	urse?				
		[1]	Yes		[2]	No				
23.	a)	In which year, did you complete Ph.D.?								
		[1]	Year:	-		_				
	b)	If Ph.D is not yet completed, state below briefly the reasons for the same?								
24.	Did yo	ur Ph.D degree	help yo	u:	-					1
	a) b) c) d) e) f)	in getting a jo in getting high in getting pos- in getting mon- in getting resp was of no help any other, plea	ner posit t-doctora te import pect from	al fellow tant responsecty	onsibilit	ies	[1] [1] [1] [1] [1]	Yes Yes Yes Yes Yes Yes	[2] [2] [2] [2] [2] [2]	No No No No No
25.	a) b)	Did your Ph.I If 'No', please	degree e elabora	fulfill you	our expe lo you fe	ctations eel so:	[1]	Yes	[2]	No

26. Furnish below, information about your research paper(s) published from your Ph.D and award(s), if any received by you during your Fellowship Tenure:

(Please attach extra sheet if the space below is insufficient)

A. PUBLICATIONS:

S.No	Title of Paper(s)	Name of Journal	Year/ Volume/ Page No.	National/ Inter- national
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B. AWARDS:

S.No.	Name of Award(s)/ Title of Patent(s)	Awarding Organization(s)	Year	National/ Inter- national
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				in f
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CAREER PROFILE

		A.	Classification: Type of Employment:		Nature of Jo	b:
			 [1] Teaching [2] Research [3] IAS & Allied Serv [4] Banking [5] Business [6] Profession [7] Other (please spec 	 [1] Public Sector [2] Private Sector [3] Government [4] Self-Employment [5] Abroad [6] Other, please specification 		
		В.	Employment & Income S	-		,
		S.No.	Designation/Post held	Date(s) From To	Gross* Salary/Income	Name of Organization/ Place of Posting
			er as he was the color for	la ¹ i e go ge	nest in the ages	
					was to the same was	
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		A COLOR		1 0 2 0 2 1 0 2 1 0		- 1
			ive of DA, VDA, HRA, Coss, OR Income from Sel			lit from
28.	a)		our present work pertains to		on [1] Yes	[2] No
	b) c)	getting	get special incentive in yo doctorate degree please briefly mention the	and the remains of the source	[1] Yes	[2] No
29.	a)		satisfied with your present ness/profession etc.?		[1] Yes	[2] No
	b)	If 'No',	state the reasons for the sa	me:	ara esta esta esta esta esta esta esta est	() ()

AN OVERVIEW ON NET

30.	Give y	our comments on the following aspects of the NET Scheme:
	a)	Whether NET is a good system for providing fellowships? If 'Yes', in what way it has benefited you as a recipient of the same?
	b)	Whether NET system needs to be continued in the present form:
		[1] Yes [2] No
	c)	Give your suggestions, if any, for improvement in the NET system:
	d)	If you have any comments on the pattern of questions set in the test papers of NET system, please state those briefly hereunder:
	e)	There is a conception that "Fellowship" is used by some fellows as a spring-board for preparation to appear in competitive exams., for jobs. Do you agree with this conception and feel, such a violation be stopped? Please give your suggestions/comments:
	f)	Give your comments & suggestions frankly on any aspect(s) of "NET Fellowship" which may not have been covered in this questionnaire:
NOT	E:	Please give a photocopy of this questionnaire to any "Fellow" known to you who may have taken up "Fellowship" along with you and is willing to participate in this study. OR you may send his/her address to us for mailing a questionnaire directly to him/her.

This questionnaire duly completed may please be returned to us at the earliest at the following address:

Prof. Y.L. Nangia
Director
Manpower Management Centre
(Research & Training Division)
BH-6C, Munirka Flats, New Delhi- 110067

Mobile: 9811345676

Tel: 26101416, (O), 26106890 (R), E-mail: <u>vlnangia@vsnl.com</u>, nangia@ mmcindia.org

* * *

ABOUT THE INSTITUTE

Manpower Management Centre (MMC), was set-up in 1987 as a non-profit organization in Delhi under the Societies Registration Act (XXI) of 1860, vide Registration No. 18171/87 for the development of manpower basically by carrying out manpower research and planning to anticipate long-run labour market needs, manpower development through lectures, seminars, courses, conferences and training programmes etc., as well as manpower placement by maintaining Manpower Data Bank and providing its advisory & consultancy services to members and other agencies. Since 1987, it has conducted a number studies exemplary and commendable research various Ministries/Departments/Agencies of the Government of India. MMC's Governing Board is constituted of senior academicians and officials from various fields. For details, please visit our Website: www.mmcindia.org.

STATUS

MMC is a registered charitable institution under Section 12A(a) of Income-Tax Act, 1961. It is also an approved institution under Section 80-G of Income-Tax Act for receiving Donations, which are exempt from income-tax in the hands of donors. The institution is also registered under FCRA, 1976.

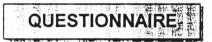
QNR.2

MANPOWER MANAGEMENT CENTRE NEW DELHI

(RESPONSE TO THIS QUESTIONNAIRE WILL BE HELD STRICTLY CONFIDENTIAL)

This study has been sponsored by the Department of Science & Technology,

<u>Government of India.</u>



CAREER PROFILE OF NET QUALIFIED RESEARCH FELLOWS: 2000 & 2001

(Kindly write/fill-up and/or select & tick [/] your raply, whichever is applicable): [Please do not leave any question unanswered/blank]

I. ACADEMIC & FAMILY BACKGROUND

1.	Your Name: (In Capital Letters)	<u>.</u>			
2.	Date of Birth/Age:				
3.	Sex:	[1]	Male	[2]	Female
4.	Marital Status (At the time of taking up NET Fellowship):	[1]	Married	[2]	Unmarried
5.	Category to which you belong:	[1] [3]	General ST	[2] [4]	SC OBC
6.	Write the State to which you belong:	-			
7.	Permanent Residential Address:	************			
8.	Present Communication Address:		-		
9.	Your Tel. No:				
10.	Your E-mail ID:				

11. Research Fellow's Qualification:

Qualification	n Uni	versity/Instituti	on	Year	Division/ % age/ Grade	Subjects	Distinction/ Scholarship/ Fellowship/ Award(s) received
Graduation				Anna Anna Anna Anna Anna Anna Anna Anna			
	ĺ					e	
Post- Graduation		2 %					
			2		- ,		
M.Phil							297
							*
Ph.D					-		
						e e	-
Post-Doctora	ı						
Any Other (Please specify)							
12. N	1embers	hip of Profession	al Bod	ies:	[1] Yes	[2]	No
12. a) If	'Yes', p	olease mention th	ne nam			Body(s) hereunde	r:
_			-			·	

13.		Family's Background:	[1]	Urban	[2]	Rural
14.		Parent's Occupation:	Fathe	<u>r</u>		Mother
			[1] [2] [3] [4] [5] [6] [7]	SERVICE PROFESSION BUSINESS AGRICULTUI HOUSEHOLD RETIRED OTHERS	RE	[1] [2] [3] [4] [5] [6] [7]
15.		Parent's Annual Income:	Fathe	<u>r</u>		Mother
			[1] [2] [3] [4] [5]	Upto Rs. 50,001 - 1,100,001 - 2,12,00,001 - 3,00,001 &	00,000	[1] [2] [3] [4] [5]
		2. FELLOWS	SHIP T	ENURE		
16.	a)	Which of the following NET you quali	fied:			
		[1] June 2000 [3] [2] Dec 2000 [4]	June 2 Dec 2			
	b)	In what subject you qualified the NET:				
			iter Sc.	[3] Life Sc [7] Electro ease specify:	nics	Maths
17.	a)	In which year you took up Fellowship:				
		[1] 2000	[2]	2001	[3]	2002
		[4] Did not take up Fellov [1]To avail other fellov				
		[2] For going abroa [3] To take up a jo [4] Unable to get registration [5] Any other reason, pleas	b: [1] on for P	Scientific [2] h.D/Placement	Non-So	cientific
	b)	Which of the following organizations as	warded .	Junior Research	Fellows	hip to you:
		[1] CSIR [2]	UGC			

	c)	What	motiva	ted you t	o take u	p NET	Fellowsh	nip:				
		[1] [3]	Teac Any	_	[2] lease spe	Rese	arch					
	d)	where	you go	t your Forvisor(s)	ellowshi 'Guide(s	p affilia):	ated for y	our resea	irch wo	ork/Ph.D	y/Universite. and the na	ame(s)
				v: ,								
18	a)	State the exact subject-area of your Ph.D (e.g. Biotechnology, Biology, Botony, Zocetc., etc.):									Zoolgy 	
	b)	Ment	ion the t	title of y	our resea	arch wo	rk:					
				120								
19.	a)	up-grada work?	ation to	Researc	ch Fellov	vship a	after cor	npietion o	ftwo			
			[1]	Yes		[2]	No		[3]	Not c	ompleted 2	Yrs.
	b)	If 'No	', was y	our term	of JRF	extende	ed to 3 rd	Year?				
			[1]	Yes		[2]	No		[3]	Not c	ompleted 2	Yrs.
	c)				get Seni pert Con			ellowship	after	the 3 rd	Year or v	was it
			[1]	Yes		[2]	Termi	inated	[3]	Not c	ompleted 2	Yrs.
20.	a)	Did yo	ou drop-	out from	researc	h work	of your o	own:				
			[1]	Yes		[2]	No					
	b)	If 'Ye	s', at wl	nat stage	you dro	pped ou	ıt:					
				[1] [4]	Ist Yr. 4 th Yr.		[2] [5]	2 nd Yr. 5 th Yr.		[3]	3 rd Yr.	
	b)	Tick N	Mark the	reason(s) for yo	ur drop	ping out	from the	resear	ch work	?	
		[1] [2] [3] [4] [5] [6]	Lack Unavo To pu To avo	of faci oidable ursue and ail other	family c d avail of Fellows	he Insti ircums ther car hips	tution/Latances eer oppo	aboratory ortunities[1] Scie	entific [2]Non-Scie	ntific
						4						

21.	a)						ivil Servi Iowship?		ım., or a	ny other	r competiti	on for
				[1]	Yes		[2]	No				
	b)	If 'Ye	es', in w	hich yea	r(s) did	you app	ear in the	e compe	titive ex	sm.?		
				[1]	Year	(s):		-				
	c)	Were	you suc	cessful i	n the co	mpetitiv	e exam.	?				
	Œ			[1]	Yes		[2]	No				
	d)	If suc	cessful,	did you	accept t	he job o	ffered to	you?				
				[1]-	Yes		[2]	No				
22.	a)	Durin	g fellow	ship ten	ure, did	you joir	any oth	er profe	ssional	course?		
		[1] [4]	Comp Any o		[2] ease spe		gement				countant	
	b)	Natur	e of the	course?								
			[1]	Full-ti	me	[2]	Part-ti	me				
	c)	Did y	ou comp	lete you	r profes	sional c	ourse?					
			[1]	Yes		[2]	No					
23.	a)	In whi	ich year,	you wi	ll be co	mpleting	g your Ph	.D.?				
			[1]	Year:								
	b)	If you	have co	ompleted	d your P	h.D, sta	te below	the yea	r of its c	ompleti	on:	
			[1]	Year:			-					
24.	In case	e, you ha	ave alrea	idy com	pleted y	our Ph I	O did this	degree	help yo	u:		
	a) b) c) d) e) f)	in gett in gett in gett in gett was of	ing post ing mor ing resp f no help	er positi -doctora e import ect from	l fellov ant resp society	oonsibili	ties	[1] [1] [1] [1] [1]	Yes Yes Yes Yes Yes Yes	[2] [2] [2] [2] [2] [2]	No No No No No	
25.	a) b)			s comple elabora				ll your	expectat	ions: [1]]Yes [2]No)

26. Furnish below, information about your research paper(s) published from your Ph.D and award(s), if any received by you during your Feliowship Tenure:
(Please attach extra sheet if the space below is insufficient)

A. PUBLICATIONS:

S.No	Title of Paper(s)	Name of Journal	Year/ Volume/ Page No.	National/ Inter- national
			-	
				<u> </u>
	1			
	-			
				ž

B. AWARDS:

S.No.	Name of Award(s)/ Title of Patent(s)	Awarding Organization(s)	Year	National/ Inter- national
				þ
	22.			
	: · · · · · · · · · · · · · · · · · · ·			

CAREER PROFILE

		A.	Classification: Type of Employment:		Natui	re of Jol	b:	
			 [1] Teaching [2] Research [3] IAS & Allied Serv [4] Banking [5] Business [6] Profession [7] Other (please spec Employment & Income S	ify:	[1] Public Sector [2] Private Sector [3] Government [4] Self-Employment [5] Abroad [6] Other, please spec			r nent
		S.No.	Designation/Post held	Date(s) From To	Gros Salary/I		Organ Pla	me of nization nce of sting
			sive of DA, VDA, HRA, Coness, OR Income from Sel				fit from	
28.	a) b)	Did yo	our present work pertains to u get special incentive in yo		on [1]	Yes	[2]	No
	c) 1		doctorate degree ' please briefly mention the	nature of incentiv	[1] e:	Yes	[2]	No
29.	a)		u satisfied with your present		[1]	Yes	[2]	No

AN OVERVIEW ON NET

30.	Give y	our comments on the following aspects of the NET Scheme:
	a)	Whether NET is a good system for providing fellowships? If 'Yes', in what way it has benefited you as a recipient of the same?
	b)	Whether NET system needs to be continued in the present form:
		[1] Yes [2] No
	c)	Give your suggestions, if any, for improvement in the NET system:
	d)	If you have any comments on the pattern of questions set in the test papers of NET system, please state those briefly hereunder:
	e)	There is a conception that "Fellowship" is used by some fellows as a spring-board for preparation to appear in competitive exams., for jobs. Do you agree with this conception and feel, such a violation be stopped? Please give your suggestions/comments:
	f) Giv	ve your comments & suggestions frankly on any rspect(s) of "NET Fellowship" which may not have been covered in this questionnaire:
NOTE	2:	Please give a photocopy of this questionnaire to any "Fellow" known to you who may have taken up "Fellowship" along with you and is willing to participate in this study. OR you may send his/her address to us for mailing a questionnaire directly to him/her.

ONR.3

(For Research Guides/Academicians/SeniorScientists)

MANPOWER MANAGEMENT CENTRE NEW DELHI

(RESPONSE TO Tails QUESTIONNAIRE WILL BE HELD STRICTLY CONFIDENTIAL)

This study has been sponsored by the Department of Science & Technology, Government of India. Separate Questionnaires are being sent to Recipients. This Questionnaire is being sent to you for your expert comments/suggestions.



CAREER PROFILE OF NET QUALIFIED RESEARCH FELLOWS: 1996 TO 2001

(Kindly write/fill-up and/or select & tick [$\sqrt{\ }$] your reply, whichever is applicable): [Please do not leave any question unanswered/blank]

I. PERSONAL BACKGROUND

1.	Your Name (In Capital Letters):				
2.	Date of Birth/Age:		1		
3.	Sex:	[1]	Male	[2]	Female
4.	Marital Status:	[1]	Married	[2]	Unmarried
5.	Write the State to which you belong:				
6.	Residential Address:				
7.	Official Address:				
8.	Designation/Post held at present:				
9.	Your Tel. No:	_ Mobil	e No		
:0.	Your E-mail ID:				
11.	Total Number of NET Qualified Resear being guided/supervised by you for their work/Ph.D at present:	ch Felle r re s ear	ows		

AN OVERVIEW ON NET

12.	Give y	our comments on the following aspects of the NET Scheme:
	a)	Whether NET is a good system for providing fellowships?
	b)	Whether NET system needs to be continued in the present form:
		[1] Yes [2] No
	c)	Give your suggestions, if any, for improvement in the NET system:
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	()	Give your comments & suggestions frankly on any aspect(s) of "NET Fellowship" which may not have been covered in this questionnaire:
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		study. OR you may send his/her address to us for mailing a questionnaire directly to him/her.

MANPOWER MANAGEMENT CENTRE (MMC)

is a registered institution under the
Societies Registration Act (XXI) of 1860.

MMC is also recognized as a charitable institution
by the Government of India. Its thrust is on
manpower consultancy, placement, research & training.

Study conducted by



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MUNIRKA, NEW DELHI - 110067

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