CENTRE FOR DEVELOPMENT ECONOMICS
DELHI SCHOOL OF ECONOMICS
DELHI -110007

Prof. Suresh Aggarwal
Department of Business Economics
University of Delhi, South Campus,
New Delhi 110021

January 01, 2016

Subject: **Contractual appointment as Co-Investigator in the research study entitled '*Disaggregated Industry Level Productivity Analysis for India: The KLEMS Approach*', funded by Reserve Bank of India.**

Dear Suresh,

I am happy to extend your tenure as one of the Co-Investigators in the research project entitled '*Disaggregated Industry Level Productivity Analysis for India: The KLEMS Approach*' housed at the Centre for Development Economics, Delhi School of Economics, funded by Reserve Bank of India and also to contribute a paper as part of the deliverables to be submitted to the sponsors of this project. The total duration of the project is three years (started in January 01, 2015). This contract is for second year of the project, 2016.

The project would offer you a modest honorarium of INR 200,000 subject to the deduction of TDS as applicable. You will also be paid travel allowance to cover the costs of your travel in Delhi pertaining to the project related work.

The research team consists of the undersigned, the Principal Investigator, Prof. Biswanath Goldar (Institute of Economic Growth, Delhi) as Honorary Advisor, Dr. Deb Kusum Das (University of Delhi) and Dr. Abdul Azeez Erumban (The Conference Board, Brussels) as Co-Investigators. The team will be assisted by Mr. Pilu Chandra Das, Consultant and research associates to be appointed from time to time. Dr. Deb Kusum Das will continue to be the Co-ordinator of the project.

If this is acceptable, I would be grateful if you could sign and return a copy of this offer letter as your acceptance.

I look forward to work with you on the said project.

Best regards,

Dear Sir,
It is an honour to
accept the offer.
[illegible]

KLKrishna
K. L. Krishna
Principal Investigator

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Gender Discrimination in Manufacturing Employment in India, 1999–2009

Bishwanath Goldar and Suresh Chand Aggarwal

7.1 Introduction

There have been a number of studies on gender discrimination in India. A common finding of these studies is that after controlling for endowments and certain other factors, the wages received by women are relatively lower than those received by men (see, for instance, Reilly and Vasudeva-Dutta, 2005; Menon and Rodgers, 2007; Khanna, 2012; Krishna and Bino Paul, 2012; and Paul and Paul, 2013). In this chapter, a different dimension of discrimination is studied, namely discrimination in job tenure (regular wage jobs versus casual jobs).[1] The analysis is confined to Indian manufacturing, as in the paper of Menon and Rodgers (2007). The main hypothesis tested econometrically is that after controlling for endowments and industry affiliation, the women tend to get discriminated in the matter of getting regular jobs. A related hypothesis is about the effect of economic reforms, particularly trade liberalization, on gender discrimination. There are reasons to believe that liberalization of trade and industrial policies, inasmuch as it leads to increased competition, will reduce gender discrimination in wages. This view is based on a theory of discrimination (see Becker, 1971). The argument is that gender discrimination is costly and the employers do discrimination despite it being costly because of the nature of their preferences. Hence, the employers will have to curb their preference for discrimination if competitive forces bring down their profit margin.

A question of particular interest to this chapter is the inter-state differences in the extent of gender-based discrimination in manufacturing employment. The focus, as mentioned above, is on the tenure of employment i.e., how far

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In Book

7 Productivity growth in India under different policy regimes

DEB KUSUM DAS, ABDUL A. ERUMBAN, SURESH AGGARWAL, AND SREERUPA SENGUPTA

7.1 Introduction

Following the substantial liberal market reforms, the Indian economy has been growing at a spectacular rate in the last decade and this has attracted much attention in the literature (e.g. Bhagwati and Panagariya 2013; Eichengreen *et al.* 2010; Panagariya 2008; Bosworth and Collins 2008).[1] In 1991, when India started liberalizing the economy, its size was only 3% of global gross domestic product (GDP), while in 2013 it was almost double at 6% (The Conference Board 2014), definitely suggesting a faster growth compared to most other emerging economies, except China. The Indian economy grew at an average annual rate of 7% since 1996 for a period of fifteen years, with little deviation from the mean growth rate. Even when the global economy was suffering from recession in 2008 and 2009, the Indian economy grew at about 6–8%, although the rate of growth slowed down significantly to an average of 5% after.[2]

[1] This chapter is from a paper presented at the 3rd world KLEMS conference held in Tokyo, Japan on May 16–17, 2014, organized by REITI (Japan). The authors would like to thank REITI for travel and other support for Deb Kusum Das and Suresh Aggarwal, and all conference participants especially Barbara Fraumeni and Harry Wu for useful comments. Detailed comments by Marcel Timmer and Dale Jorgenson on the first draft are also acknowledged. The authors thank K. L. Krishna and B. N. Goldar for advisory support in discussions relating to the construction of India KLEMS dataset. Financial support from Reserve Bank of India in building the India KLEMS dataset is gratefully acknowledged. The usual disclaimers apply.

[2] The recent set-backs, particularly after 2012, are sometimes attributed partly to the global financial crisis (Mohan and Kapur 2015). However, multiple factors played a substantial role in dragging down India's growth. These include both internal and external factors including soaring inflation, increased fiscal and current account deficit, and a weakening of Indian Rupee.

In Book

The Indian Journal of Labour Economics, Vol. 57, No. 3, 2014

EMPLOYMENT OF CASUAL WORKERS IN ORGANISED MANUFACTURING IN INDIA: ANALYSIS OF TRENDS AND THE IMPACT OF LABOUR REFORMS

Bishwanath Goldar and Suresh Chand Aggarwal*

The paper analyses trends in the employment of casual labour in India's organised manufacturing sector during the decade 1999-2000 to 2009-10 by using unit level data of the 55th, 61st and 66th Rounds of the Employment–Unemployment surveys conducted by the National Sample Survey Organisation (NSSO). An attempt has been made to explore the impact of labour regulations on the employment of casual workers. The analysis has been conducted at both the all-India level and the level of major Indian states. The trends in casualisation by education and by the size of firms have also been examined. An econometric analysis of the reasons as to why firms hire casual labour instead of regular labour has been attempted. The impact of labour market reforms on employment of casual labour has also been investigated. The results of the analysis presented in the paper basically show that casualisation of labour in organised manufacturing prevails in many traditional industries and in many major states of India. The presence of casual labour is higher among females, in rural areas, in 'big' firms and among relatively less educated workers. The wages of casual workers have tended to be lower than those of regular workers. It has been found that labour market reforms do benefit casual labour and firms tend to hire more of regular workers.

Keywords: *Casual labour, Organised manufacturing, Labour market reforms*

I. INTRODUCTION

Several studies have noted the increasing casualisation or informalisation of labour in India, particularly an upward trend in the share of casual or informal workers out of total employment in the industrial sector or the non-agricultural sector. To give some examples, Papola (2007) has drawn attention to the increasing casualisation in India and has noted that the proportion of casual workers out of aggregate employment in India increased from 23 per cent in 1972-73 to 33 per cent in 1999-2000. Maiti and Mitra (2010) have presented estimates of informal employment in Indian manufacturing for the years 1999-2000 and 2004-05. According to their estimates, the share of the informal sector in the manufacturing workforce increased from 78 per cent in 1999-2000 to 85 per cent in 2004-05. Srivastava

* Institute of Economic Growth, Delhi; and Department of Business Economics, South Delhi Campus, University of Delhi, Delhi, respectively; Email: bng@iegindia.org and sureshchag@yahoo.com, respectively. This paper was presented at the National Seminar on "Globalisation, Labour Markets and Employment Relations in India", organised by the Institute for Human Development (IHD) and the Indian Society of Labour Economics (ISLE), 9-10 July, 2012, at ICSSR Western Regional Centre, Mumbai.

11/08/2014

ज्ञान-विज्ञान विमुक्तये

UNIVERSITY GRANTS COMMISSION
BAHADUR SHAH ZAFAR MARG
NEW DELHI-110002

No.F.1-4/2011 (e-content)

July, 2014

To

31 JUL 2014

The Registrar
University of Delhi
South Campus, New Delhi 110021

AR (Acs)

Sub: Project "Production of e-content courseware on post graduate subjects.

Sir,

The Ministry of Human Resource Development (MHRD), under its National Mission on Education through Information and Communication Technology (NME-ICT) has awarded the above project to the UGC as a nodal agency. The Standing Committee/ Sub Committee of Standing Committee of e-content constituted by the UGC, has selected **Prof. S.C. Aggarwal** from the department of Business Economics of your university for developing e-content at PG level for the subject **Business Economics.**

In this context I am directed to convey that MHRD does not allow institutional/ overhead charges in this project and request you to release the entire funds to Principal Investigator and allow PI to utilize it for e-content development as per approved budget head.

Yours sincerely,

Diksha Rajput
(Diksha Rajput)
Publication Officer

5/8 1. S.O. (R)
2. Copy to Prof. S.C. Aggarwal

No. 10/28/2014-CC
Government of India
Ministry of Environment, Forests & Climate Change
Climate Change Division

Paryavaran Bhawan,
CGO Complex, Lodhi Road,
New Delhi-110003

Dated: 20th June, 2014

To,

The Director, Institute of Economic Growth (IEG),
University Enclave, University of Delhi (North Campus),
Delhi – 110 007

Sub: - Letter of Award for carrying out "Modeling Studies on Greenhouse Gas Emission and Emission Intensity of Indian Economy" by Consortium of IEG, NISTADS (CSIR) and University of Delhi (Department of Business Economics)

Sir,

I am directed to refer to this Ministry's letter dated 9.01.2014 inviting the Expression of Interest and your proposal dated 07.02.2014 for carrying out "Modeling Studies on Greenhouse Gas Emission and Emission Intensity of Indian Economy". In consideration of your above proposal, I am directed to convey the sanction of the President to award of aforesaid mentioned study to the Consortium led by the Institute of Economic Growth (IEG) and including NISTADS (CSIR) and University of Delhi (Department of Business Economics) at a total cost of Rs. 43,25,000/- (Rupees forty three lakhs twenty five thousand only) inclusive of all taxes. The duration of the project is 18 months.

2. The break-up of the total cost of the project is as per the details given below:

S. No.	**Item**	**Costs (in Rs.)**		
		NISTADS	**DU**	**IEG**
1.	Manpower			
	• Existing	0	0	0
	• Additional Manpower (including outsourcing)	11,00,000	4,00,000	12,50,000
2.	Equipment/ software	0	55,000	1,00,000
3.	Travel	2,00,000	25,000	80,000
4.	Recurring Expenses (Expenditure consumables/stationary, data)	0	20,000	20,000
5.	Field Study/Workshop	0	0	0
6.	Institutional Overheads Consultancy /Infrastructural	3,00,000	1,00,000	2,00,000
	Taxes (As applicable) Service Tax @ 12.36%	1,97,500	74,000	2,03,500
	Sub Total	17,97,500	6,74,000	18,53,500
	TOTAL	**43,25,000**		

[signature]

3. This order is subject to the following terms and conditions:

(i) Terms and conditions mentioned in **Annexure-I** to this sanction order would be followed by the Project proponents.

(ii) The study would cover scope of work and objectives specified in the Invitation for Expression of Interest (EOI) and included in **Annexure-II** to this sanction order.

(iii) The study would be completed within 18 months from the date of start. Project proponents would take all actions as may be required to achieve the aims and objectives of the study within the stipulated time frame and sanctioned funds.

(iv) All correspondence with regard to the study shall be with the lead partner of the Consortium. However, all partners of the Consortium shall be jointly and severally liable for all obligations of the lead partner for completion of the study to the satisfaction of the Ministry.

(v) All payments for the study shall be made only through the lead partner of the Consortium. The payment schedule would be as following:-

a) 30% of the total cost as mobilization advance on award of work
b) 40% of the total cost on submission of the preliminary results of the study within six months from date of start
c) 30% of the total cost on acceptance of the final report within 18 months from date of start

(vi) The 'starting date' for the study would be the date of issue of this letter of award. Project proponents shall ensure its readiness and mobilize its team in order to commence the required services from the starting date.

(vii) The deployment of the manpower for the study will be as per the original proposal submitted to the Ministry.

(viii) The Steering Committee constituted by the Climate Change Division of the Ministry would guide and monitor the study on periodic basis. The proponents will present progress of the study and discuss issues to ensure consultation with the Ministry for desired outputs in the monthly review meetings to be held in the Ministry.

(ix) Before release of funds, the lead partner IEG would furnish a 'Bond' in the prescribed format for Rs. 43,25,000/- (Rupees Forty three lakhs twenty five thousand only) to this Ministry.

(x) Any request for further release of funds should be supported with upto date physical progress and audited Utilization Certificate and Expenditure Statement to be submitted by the lead partner in the prescribed format. The lead partner would also seek permission to carry forward unspent funds at the end of the financial year.

(xi) If project proponents fail to complete the work as envisaged in this Order within the agreed project schedule, they shall be liable for liquidated damages to the Ministry for meeting any extra cost incurred by the Ministry due to alternative arrangement of the work left unfulfilled by the project proponents.

(xii) The data, reports and other outputs of the study will become the property of this Ministry. It should not be shared or disseminated without the prior approval of the Ministry.

4. The expenditure involved will be debitable to Major Head 3435.03.104.07.00.31 Grants-in-Aid (Plan) under Demand No. 31 of Ministry of Environment, Forests & Climate Change for the financial year 2014-15.

5. The receipt of this award letter shall be acknowledgment per return. This sanction issues with the approval of the Chief Accounting Authority. The advice of the Integrated Finance Division was conveyed vide Dy. No. 687/AS&FA dated 05/06/2014.

Yours faithfully,

Ajay Raghava

(Ajay Raghava)
Deputy Director

Copy to:

1. Secy(EF&CC)/AS(SK)/JS(CC)
2. Pay & Accounts Officer, MoEF&CC, New Delhi
3. Cash Section, MoEF&CC, New Delhi
4. The Director of Audit-Commerce, Works and Misc, AGCR Building, New Delhi
5. IFD/B&A/Guard File/Sanction Folder

ANNEXURE – I

1. The grant provided by the Government should be spent only for the purpose for which it has been sanctioned. The organization is not permitted to seek or utilize funds for the same purpose from any other organization (Government, Semi-government, Autonomous or Private).

2. Any unspent amount out of the grant given by the Government must be surrendered to the Government. If unutilized amount of one financial year is required to be carried on to the next financial year, specific permission of the Government must be obtained.

3. The organization will furnish an Utilization Certificate within sixty days of the close of each financial year i.e. by 31st May of each year, for the amount released during the previous financial year.

4. The Government may depute any person to visit the organization for the purpose of monitoring its work. Full facilities must be provided by the organization to the persons deputed by the Government.

5. The organization will maintain proper accounts in the form specified by the Government. The Comptroller and Auditor-General of India at his discretion may audit the books of accounts of the organization.

6. The organization will furnish to the Government annually a report of its work within three months and its audited accounts within nine months of the close of the financial year.

7. If a part or whole grant is kept in a bank account earning interest, the interest thus earned should be reported to the Government. The interest earned will be treated as credit to the organization to be adjusted towards future grants.

8. The organization will send to the Government at the end of each financial year a list of assets acquired, with the funds granted by the Government. "Assets" means(a) immovable property; and (b) movable property of a capital nature where the value exceeds Rs. 1000/-.

9. Any assets acquired out of the grants given by the Government will be entered into a stock register as per the Performa prescribed by the Government and shall be exclusively used for the purpose for which the asset is sanctioned. It is the responsibility of the organization to maintain the assets properly.

10. The organization will furnish half yearly expenditure statements in the prescribed Performa.

11. All the assets acquired/created out of the grants will be the property of the Government and without the prior permission of the Government will not be disposed off encumbered or utilized for any purpose other than for which it is sanctioned.

12. The Government of India has the discretion to gift the assets to the grantee Organization if it considers appropriate to do so or dispose of the assets by transfer to other organization in a manner as deemed appropriate.

13. In case of violation of any of these conditions of the grant or in case of closure or dissolution of the organization, the Government may take possession of all the assets of the organization acquired out of the Government grants and use them in any manner deemed appropriate or to recover from the organization the value of such assets at its discretion.

14. The staff employed by the organization shall not be the employees of the Government of India and will be governed solely by the rules of the organization with respect to all matters including terms and tenure of service.

Annexure-II

SCOPE OF WORK: India has taken several measures that have a direct bearing on mitigating climate change. Some of these measures are: improving energy efficiency and conservation, power sector reforms and promoting renewable energy. A National Action Plan on Climate Change was launched in 2008 with eight missions, of which three missions namely National Mission on Enhanced Energy Efficiency, National Solar Mission and National Mission on Sustainable Habitat are mitigation oriented. Sustainable Development is one of the Central themes of India's 12 Five Year Plan, which outlines a low carbon inclusive growth strategy. Such on-going as well as the planned policies and measures will significantly contribute towards reduction of greenhouse gas emissions in India. In this background, Government of India intends to launch modeling studies with the following **objectives**:-

1. To delineate and discuss the contributions of various sectors like (i) Energy (Electricity, Other Non Electricity, Transport, Buildings), (ii) IPPU (Process, Products), (iii) Agriculture, (iv) LULUCF and (v) Wastes to GHG emission intensity of Indian economy during the period 2005-2010, 2010-2015 & 2015-2020.

2. To project trajectories of GHG emissions of India in post-2020 period till 2050 in the time frames 2020 to 2030, 2030 to 2040 and 2040-2050.

3. Assessment of implications of various developmental paradigms/pathways/structural shifts/ technological changes on National Greenhouse Gas Emission Trajectories in the time frames 2020-2030, 2030-2040 and 2040-2050.

4. Scenario analysis of alternate growth pathways (5-9% GDP growth rate) and its impact on the Emission Projections for stabilization of GHG concentration.

5. This should take into account the requirement of growth, poverty alleviation, urbanization and other foreseeable developments/eventualities in the mentioned time frames.

6. Study of feasibility and cost estimates for mitigation in different sectors of economy and technology.

7. Analysis of the extant ongoing and planned policies, their impact on the GHG emission intensity of Indian economy and their contribution to emission intensity reduction of Indian economy, including the cost/economic implications thereof.

8. Identification of gaps and possible options for addressing the challenges of reduction of emission intensity of India in the context of sustainable growth as per voluntary pledges of India.

9. To identify and project requirement for international support in terms of technology, know-how, funds and capacity building.

10. The interested researchers/institutions will indicate the model/framework to be used in the study.

Considering the possibilities of different models/frameworks leading to slightly different projections about the trajectories, a synthesis report may have to be prepared to provide a comprehensive picture of the various aspects outlined under the scope of studies. Sectoral assessments will incorporate socio-economic parameters (apart from GDP and Population growth), distributional and equity issues and relevant policies which are important for sustainable development of the Indian economy. It will provide inputs for the design of sector specific mitigation responses and their attendant implications for financial and technological resource requirements.

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