

Cartagena de Indias, February 12th, 2009

Welcome

Dear Friends and Colleagues,

It is our pleasure to welcome you to Cartagena for the **First Conference of the Regional Science of the Americas: RSAmericas2009**. On behalf of the RSAmericas and the Organizing Committee, I would like to thank you for joining us at this historical meeting, and for sharing your experience, research and views with all the participants. I would also like to thank the North American Regional Science Council and the Banco de la República, Central Bank of Colombia, the co-sponsors of this conference, for their invaluable help and support to make this meeting a success.

The First Conference of the Regional Science of the Americas is intended to be a major international forum for researchers and policy-makers in the field of Regional Science in our continent, focusing on today's most challenging issues. RSAmericas2009 brings together more than 100 participants from 17 different countries. The papers cover all major areas of the field, with applications for a wide range of regions in the continent.

I hope you will also have some time to visit the charming Cartagena. I bet you will enjoy this lively city, full of history and enchants.

I am so pleased you are here and I wish you an excellent and memorable conference as well as an enjoyable stay in Cartagena!

**Eduardo Haddad**

**President of RSAmericas**

## **RSAmericas Council**

Patricio Aroca, Universidad Catolica del Norte, Antofagasta, Chile  
Edward Feser, University of Illinois at Urbana-Champaign, Urbana, IL, USA  
Eduardo Haddad, University of Sao Paulo, Brazil  
James LeSage, Texas State University, TX, USA  
Mark Partridge, Ohio State University, OH, USA  
Mario Polese, Universite du Quebec, QC, Canada  
Jean-Claude Thill, University of North Carolina at Charlotte, NC, USA

Eduardo Haddad

**President**

## **Conference Organizers and Program Participants**

### **Scientific Program Committee members**

Luc Anselin, Arizona State University, USA  
Patricio Aroca, Universidad Catolica del Norte, Chile  
Juan Barón, CEER - Banco de la Republica, Colombia  
Jaime Bonet, Interamerican Development Bank, USA  
Carlos Azzoni, University of Sao Paulo, Brazil  
Ciro Biderman, MIT, USA  
Roberta Capello, Politecnico di Milano, Italy  
João Francisco de Abreu, Pontifical Catholic University of Minas Gerais, Brazil  
Juan Carlos Duque, EAFIT University, Colombia  
Pedro Elosegui, BCRA, Argentina  
Edward Feser, University of Illinois at Urban-Champaign, USA  
Luis Galvis, CEER - Banco de la Republica, Colombia  
Leonardo Gasparini, Universidad Nacional de La Plata, Argentina  
Mauricio Ramirez Grajeda, Universidad de Guadalajara, Mexico  
Eduardo Haddad, University of Sao Paulo  
Randall Jackson, West Virginia University, USA  
Pavlos Kanaroglou, McMaster University, Canada  
Kara Kockelman, University of Texas, Austin, USA  
Francisco Martinez, Universidad de Chile, Chile  
Ann Markusen, University of Minnesota, USA  
Joel Outtes, Universidade Federal do Rio Grande do Sul, Brazil  
Mark Partridge, Ohio State University, USA  
Elena Safirova, Resources for the Future, USA  
Roger Stough, George Mason University, USA  
Jean-Claude Thill, University of North Carolina at Charlotte, USA  
Tito Yepes, World Bank, USA

### **Program co-chairs:**

Luis Armando Galvis, CEER - Banco de la Republica, Colombia  
Adolfo Meisel, CEER - Banco de la Republica, Colombia  
Jean-Claude Thill, Executive Director NARSC.

**Keynote Speakers**

Geoffrey Hewings, University of Illinois at Urbana-Champaign.  
Juan R. Cuadrado-Roura, Universidad de Alcalá, Madrid, Spain.

**Secretariat of the Conference**

Irene Salazar, CEER – Banco de la República

**Web Manager**

Melanie Triana Salazar, Profesional Júnior - Unidad de Investigaciones  
Gerencia Técnica, Banco de la República.

**Design and illustrations**

Gabriel Pulido, Profesional - Sección de Publicaciones  
Departamento Comunicación Institucional, Banco de la República

**Emergency Contact Numbers:**

Irene Salazar, CEER – Banco de la República  
Tel. (+57) 301 501 3036

Ambulance: 125

Police Department: 112

## SCHEDULE OVERVIEW (Room assignments in parentheses)

TIME	Wed Feb. 11	Thu Feb. 12	Fri Feb. 13
7:30 - 8:00		Registration Opens	
8:00 - 8:30		Welcome Address: Adolfo Meisel, Roberta Capello, Eduardo Haddad. (Manzanillo del Mar, 3rd Floor)	
8:30 - 9:00		Plenary Session 1: "Demographic challenges to regional development" Keynote Speaker: Geoffrey Hewings. (Manzanillo del Mar, 3rd Floor)	
9:00 - 9:30			
9:30 - 10:00		Sessions	Sessions
10:00 - 10:30			
10:30 - 11:00			
11:00 - 11:30		Coffee Break	Coffee Break
11:30 - 12:00		Sessions	Sessions
12:00 - 12:30			
12:30 - 13:00			
13:00 - 13:30		Lunch (Room: Sports Bar, 2nd Floor)	Lunch (Room: Sports Bar, 2nd Floor)
13:30 - 14:00			
14:00 - 14:30	RSAI Colombia Constitution Workshop. Invitation Only. Place: "Casa de Bolívar", Banco de la República	Sessions	Sessions
14:30 - 15:00			
15:00 - 15:30			
15:30 - 16:00		Coffee Break	Coffee Break
16:00 - 16:30		Sessions	Sessions
16:30 - 17:00			
17:00 - 17:30			
17:30 - 18:00			
18:00 - 18:30	Dinner		Plenary Session 2: "Regional Policy: What (it seems) have we learnt?" Keynote Speaker: Juan R. Cuadrado-Roura (Republicano, 3rd Floor)
18:30 - 19:00	Workshop	Conference Welcome Reception (Fifth Floor, by the pool)	City Tour and Dinner Reception. Place: Club de Pesca de Cartagena. Transportation will be provided from the Hotel Almirante Estelar.
19:00 - 19:30	Reception.		
19:30 - 20:00	Invitation Only.		
20:00 - 20:30			
20:30 - 22:00			

## PROGRAM AT A GLANCE

Day	Time	Session Number	Session
Thursday	7:30 - 8:00	<b>Registration Opens</b>	
	8:00 - 8:30	<b>Welcome Address: Adolfo Meisel, Roberta Capello, Eduardo Haddad. (Manzanillo del Mar, 3rd Floor)</b>	
	8:30 - 9:30	<b>Plenary Session 1: "Demographic challenges to regional development" Keynote Speaker: Geoffrey Hewings. (Manzanillo del Mar, 3rd Floor)</b>	
	9:30 - 11:00	111	Public Policy and Regional Economics (Republicano, 3rd Floor)
		112	GIS & Spatial Analysis Applications I (Colonial, 3rd Floor)
		113	Agglomeration and Economic Development (Contemporáneo, 3rd Floor)
		114	Network Based Applications (San Sebastián del Pastelillo, 2nd Floor)
11:00 - 11:30	Coffee Break		
Thursday	11:30 - 13:00	RSAmericas Council Meeting. Invitation Only. (Manzanillo del Mar, 3rd Floor)	
		121	Growth and Institutions (Republicano, 3rd Floor)
		122	Regional Development (Colonial, 3rd Floor)
		124	Income, Inequalities and poverty I (Contemporáneo, 3rd Floor)
	13:00 - 14:30	<b>Lunch (Room: Sports Bar, 2nd Floor)</b>	
Thursday	14:30 - 16:00	131	Assessing Quality of Life (Republicano, 3rd Floor)
		132	Input-Output and Industrial Linkages (Colonial, 3rd Floor)
		133	Growth and Economic Cycles (Contemporáneo, 3rd Floor)
		134	Sustainable Development I (San Sebastián del Pastelillo, 2nd Floor)
	16:00 - 16:30	Coffee Break	
Thursday	16:30 - 18:30	141	Growth and Evolution of Cities (Republicano, 3rd Floor)
		142	Environment and Amenities in Cities (Colonial, 3rd Floor)
		143	Free Trade and Growth (Contemporáneo, 3rd Floor)
		144	Spatial Econometrics: Methods and Applications I

			(San Sebastián del Pastelillo, 2nd Floor)
	18:30-20:00	<b>Conference Welcome Reception (Fifth Floor by the pool)</b>	
<b>Friday</b>	9:00 - 11:00	211	New Economic Geography (Republicano, 3rd Floor)
		212	GIS & Spatial Analysis Applications II (Colonial, 3rd Floor)
		213	Regional Policies (Contemporáneo, 3rd Floor)
		214	Spatial Econometrics: Methods and Applications II (San Sebastián del Pastelillo, 2nd Floor)
	11:00 - 11:30		Coffee Break
<b>Friday</b>	11:30 - 13:00	222	Growth and Convergence (Republicano, 3rd Floor)
		223	Latinamerican Case Studies (Colonial, 3rd Floor)
		224	Income, Inequalities and poverty II (Contemporáneo, 3rd Floor)
	13:00 - 14:30		<b>Lunch (Room: Sports Bar, 2nd Floor)</b>
<b>Friday</b>	14:30 - 16:00	231	Growth in Cities (Republicano, 3rd Floor)
		232	Input-Output & CGE (Colonial, 3rd Floor)
		233	Regional Growth and Location Patterns (Contemporáneo, 3rd Floor)
		234	Sustainable Development II (San Sebastián del Pastelillo, 2nd Floor)
	16:00 - 16:30		Coffee Break
<b>Friday</b>	16:30 - 18:00	241	Local Governments and Decentralization (Republicano, 3rd Floor)
		242	Migration and Development (Colonial, 3rd Floor)
		243	R&D and Productivity (Contemporáneo, 3rd Floor)
		244	Service Sector (San Sebastián del Pastelillo, 2nd Floor)
	18:00 - 19:00	<b>Plenary Session 2: "Regional Policy: What (it seems) have we learnt?"</b> Keynote Speaker: Juan R. Cuadrado. (Republicano, 3rd Floor)	
	19:00 - 22:00	<b>City Tour and Dinner Reception.</b> Place: Club de Pesca de Cartagena. Transportation will be provided from the Almirante Estelar Hotel.	

Note: Each paper has an ID that is used to identify the discussant. For instance, the presenter of paper 1112 is supposed to discuss paper 1111.

- The presenter of The first paper in each session is to act as The Chair of that session. Room assignments in parentheses.

Day	Time	Session Number	Session	Paper ID	Title	Authors	email	Affiliations	Discussant
Thursday	9:30 - 11	111	Public Policy and Regional Economics  (Republicano)	1111	INFLUENCE OF THE LOCAL GOVERNMENT'S POLITICAL ORIENTATION ON HOUSING PRICES	Alejandro Garcia Pozo	alegarcia@uma.es	Universidad de Málaga - Spain	1112
				1112	DID WELFARE REFORM IN THE U.S. INDUCE A RACE TO THE BOTTOM IN CASH ASSISTANCE TO THE POOR? EVIDENCE USING STATES' WELFARE EXPENDITURES FROM 1997-2006	Luz Amparo Saavedra	lasaavedra@stthomas.edu	University of St. Thomas	1113
				1113	URBAN AND HOUSING POLICIES, AND THEIR IMPACT ON THE URBAN AND ENVIREMANTAL REALITY IN MEXICO: THE CASE OF THE METEPEEC MUNICIPALITY	Alberto Javier Villar Calvo ALEJANDRO DE LAS HERAS ISLAS	betovillarmx@yahoo.com.mx aheras38@hotmail.com	— Universidad Autónoma del Estado de México	1111 1111
		112	GIS & Spatial Analysis Applications I  (Colonial)	1121	CULTURAL DEVELOPMENT POTENTIAL OF THE BRAZILIAN STATES: A SPATIAL ANALYSIS	Amir Neto Fernando Perobelli	amirneto@gmail.com fernando.perobelli@uff.edu.br	Federal University of Juiz de Fora- Brazil Federal University of Juiz de Fora- Brazil	1122 1122
				1122	SPRAWL MODEL OF ECONOMIC AND POPULATION OF THE METROPOLITAN AREA OF MEXICO CITY, 1993-2003	Luis Quintana-Romero Normand Eduardo Asuad Sanén Roberto Ramirez Hernández	luquinta@apolo.acatlan.unam.mx nasuad@yahoo.com robrami@unam.mx	Universidad Nacional Autónoma de Mexico Universidad Nacional Autónoma de Mexico Universidad Nacional Autónoma de Mexico	1123 1123 1123
				1123	THE INCOME AND POPULATION EVOLUTION IN THE CITIES OF RIO GRANDE DO SUL STATE BETWEEN 1970 AND 2000: A SPATIAL ANALYSIS	Izete Pengo Bagolin	lzete.bagolin@pucrs.br	Pontificia Universidade Católica do Rio Grande do Sul	1121
				113	Agglomeration and Economic Development  (Contemporáneo)	1131	AGGLOMERATION ECONOMIES AND INDUSTRIAL DEVELOPMENT: HYPOTHESES AND PRACTICES IN CHILE	Daisuke Nakamura Miguel Atienza	dnakamura@ucn.cl miatien@ucn.cl
		1132	ECONOMICAL AGGLOMERATIONS IN BRAZIL: DISTINCTIVE APPROACH, SIMILAR TECHNICS.			Jackson T. Bittencourt Olga Lúcia C. De Freitas Firkowski	jbittencourt@up.edu.br —	University Positivo Federal University of Paraná - Brazil	1133 1133
		1133	INDIVISIBILITIES, SYNERGY AND PROXIMITY: THE NEED FOR AN INTEGRATED APPROACH TO AGGLOMERATION ECONOMIES			Roberta Capello	roberta.capello@polimi.it	Politecnico di Milano - Italy	1131
		114	Network Based Applications (San Sebastián del Pastelillo)	1141	KNOWLEDGE FLOWS, GEOGRAPHY AND ECONOMIC DEVELOPMENT: A SOCIAL NETWORKS APPROACH FOR THE CASE OF PATENTS IN HIGH-TECH INDUSTRIES IN THE US	Luis Armando Galvis	lgalviap@banrep.gov.co	CEER -Banco de la Republica, Cartagena	1142
	1142			IDENTIFYING INDUSTRY CLUSTERS IN COLOMBIA BASED ON GRAPH THEORY	Dairo Andres Gomez Juan C. Duque	dgomezca@eafit.edu.co jduquec1@eafit.edu.co	Research in Spatial Economics (RISE-group). EAFIT University Research in Spatial Economics (RISE-group). EAFIT University	1143 1143	
	1143			STRATEGICALLY MANAGING ENTREPRENEURIALSHIP'S INNOVATIVE CAPACITY'	Maria Pinilla Ramirez	M.F.Pinilla.Ramirez@rug.nl	University of Groningen	1141	
	115			Coffee Break	115	—	—	—	—

Note: Each paper has an ID that is used to identify the discussant. For instance, the presenter of paper 1112 is supposed to discuss paper 1111.

- The presenter of The first paper in each session is to act as The Chair of that session. Room assignments in parentheses.

Day	Time	Session Number	Session	Paper ID	Title	Authors	email	Affiliations	Discussant		
Thursday	11:30 - 1	121	Growth and Institutions (Republicano)	1211	COMPETITIVE CAPABILITIES OF THE MEXICAN CITY SYSTEM. THE INSTITUTIONAL FAILURE	Guillermo E. Ibarra	gibarra@uas.uasnet.mx	Universidad Autónoma de Sinaloa	1212		
						Ana Luz Ruelas	aruelas@uas.uasnet.mx	Universidad Autónoma de Sinaloa	1212		
				1212	INSTITUTIONS AND GROWTH: A DYNAMIC PANEL DATA ANALYSIS (1980-2004)	Flávio Vilela Vieira	flaviovieira@ufu.br	Federal University of Uberlândia	1213		
				1213	THEORY OF ENDOGENOUS INSTITUTIONS AND EVIDENCES FROM AN IN-DEPTH FIELD STUDY IN INDONESIA	Iwan J. Azis	_	Cornell University	1211		
							Maria M. Wihardja	mw465@cornell.edu	Cornell University	1211	
		122	Regional Development (Colonial)	1221	CAPACITY-BUILDING TOOLS FOR LOCAL DEVELOPMENT: THE CASE OF INTEGRATED LOCAL DEVELOPMENT PROGRAMS (PISL) IN ITALY		Alberto Brugnoli	_	IReR (Lombardy Regional Institute for Research) Milano	1222	
							Sabrina Bandera	c-bander@irer.it	IReR (Lombardy Regional Institute for Research) Milano	1222	
				1222	NATIONAL AND INTERNATIONAL REPUTATION OR REGIONAL ENGAGEMENT: THE ROLE OF HIGHER EDUCATION INSTITUTIONS IN THE PROCESS OF REGIONAL DEVELOPMENT		Cássio Rolim	cassio.rolim@ufpr.br	Federal University of Paraná - Brazil	1223	
							Maurício Serra	serra@ufpr.br	Federal University of Paraná - Brazil	1223	
		1223	RESTRUCTURING OF THE MEXICAN ECONOMY AND CHANGES TO THE REGIONAL PRODUCTION PATERNS IN MEXICO 1980-2005	Arturo Ranfla González	aranfla@uabc.mx	Universidad Autónoma de Baja California	1221				
		124	Income, Inequalities and poverty I (Contemporáneo)	1241	KUZNETS CURVE FOR INCOME IN COLOMBIA: AN EMPIRICAL ANALYSIS		Leonardo Bonilla	lbonilme@banrep.gov.co	CEER -Banco de la Republica, Cartagena	1242	
						1242	A CHARACTERIZATION OF REGIONAL DISPARITIES IN ARGENTINA (1986-2006)	Beatriz Alvarez	bealvarez@hotmail.com	Universidad Nacional de La Plata - Argentina	1241
			13:00 - 1	125	Lunch	125	(Room: Sports Bar)	_	_	_	_

Note: Each paper has an ID that is used to identify the discussant. For instance, the presenter of paper 1112 is supposed to discuss paper 1111.

- The presenter of The first paper in each session is to act as The Chair of that session. Room assignments in parentheses.

Day	Time	Session Number	Session	Paper ID	Title	Authors	email	Affiliations	Discussant		
Thursday	14:30 - 1	131	Assessing Quality of Life (Republicano)	1311	WELL-BEING AT THE SUB-CITY LEVEL: THE BUENOS AIRES NEIGHBORHOOD QUALITY OF LIFE SURVEY	Andrés Ham	ham.andres@gmail.com	Universidad Nacional de La Plata - Argentina	1312		
						Guillermo Cruces	gcruces@gmail.com	Universidad Nacional de La Plata - Argentina	1312		
						Martín Tetaz	martintetaz@yahoo.com.ar	Universidad Nacional de La Plata - Argentina	1312		
				1312	MODELLING QUALITY OF LIFE AND POPULATION GROWTH USING SIMULTANEOUS EQUATION MODELS. THE CASE OF THE BARCELONA METROPOLITAN AREA	Alessandra Faggian	A.Faggian@soton.ac.uk	University of Southampton - UK	1313		
						Vicente Royuela	vroyuela@ub.edu	Universitat de Barcelona	1313		
						1313	QUALITY OF LIFE IN URBAN NEIGHBORHOODS IN COLOMBIA: THE CASES OF BOGOTÁ AND MEDELLÍN	Carlos Medina	cmedindu@banrep.gov.co	Banco de la República	1311
				Jairo Núñez	jnunez@cable.net.co			Centro Nacional de Consultoría	1311		
				1311		Leonardo Morales	zurito75@gmail.com	Banco de la República	1311		
						132	Input-Output and Industrial Linkages (Colonial)	1321	AGGLOMERATION, INDUSTRIAL LINKAGES AND CHANGES IN INDUSTRY LOCATION IN MEXICO	Jorge Eduardo Mendoza Cota	jmendoz@mail.sdsu.edu
				1322	STRUCTURAL INTERDEPENDENCE AMONG COLOMBIAN DEPARTMENTS					Eduardo A. Haddad	ehaddad@usp.br
		Fernando S. Perobelli	fernando.perobelli@uff.edu.br					Federal University of Juiz de Fora, Brazil	1323		
		1323	THE TRANSPORT SYSTEM AS DETERMINANT OF PATTERNS OF LINKAGES AND MULTIPLIERS: A MULTI-REGIONAL INPUT-OUTPUT MODEL FOR SÃO PAULO'S ROADS	Geoffrey. J. D. Hewings	hewings@uiuc.edu			Regional Economics Applications Laboratory, UIUC, USA	1323		
				Jaime Bonet	jaimebonet@yahoo.com	Interamerican Development Bank	1323				
		133	Growth and Economic Cycles (Contemporáneo)	1331	ARE MEXICAN STATES AND UNITED STATES BUSINESS CYCLES SYNCHRONISED? EVIDENCE FROM MANUFACTURING PRODUCTION	Jeanett Campos Chávez	jeanettcach7@hotmail.com	Universidad Autónoma del Estado de México	1332		
						Pablo Mejía-Reyes	pmejia@yahoo.co.uk	Universidad Autónoma del Estado de México	1332		
				1332	EVIDENCE ABOUT CONVERGENCE AND SYNCHRONIZATION BETWEEN MEXICO AND UNITED STATES: A REGIONAL APPROACH	José Francisco Pérez de la Torre	delatorrefrancisco@gmail.com	FES Acatlán, UNAM	1333		
						1333	INDUSTRIALIZATION AND GROWTH: THRESHOLD EFFECTS OF TECHNOLOGICAL INTEGRATION	Carlos Humberto Ortiz	ortizc@univalle.edu.co	Universidad del Valle	1331
				Erika Raquel Badillo	erikabad84@hotmail.com			Universidad del Valle	1331		
				Javier Andrés Castro	jacastro@univalle.edu.co	Universidad del Valle	1331				
		134	Sustainable Development I (San Sebastián del Pastelillo)	1341	DEVELOPMENT OF A MODEL TO MONITOR THE IMPACT OF THE ADOPTION OF COMMON CODE FOR THE COFFEE COMMUNITY (4C) ON THE SUSTAINABILITY OF THE COFFEE PRODUCTIVE CHAIN IN THE MAIN PRODUCING COUNTRIES	Flavia Bliska	bliska@iac.sp.gov.br	Instituto Agronômico, IAC	1342		
1342	ECONOMIC DEVELOPMENT, THE ENVIRONMENT AND PUBLIC POLICIES IN THE BRAZILIAN AMAZON DURING THE PERIOD OF GLOBALIZATION					José Nilo de Oliveira Júnior	josenilo@ufpa.br.	Universidade Federal do Pará	1343		
				Paul John Cooney	pcooney@ufpa.br	Universidade Federal do Pará	1343				
				Wesley Pereira de Oliveira	wesleypo@ufpa.br.	Universidade Federal do Pará	1343				
1343	THE ABSENCE OF THE NATIONAL AND INTERNATIONAL ENVIRONMENTAL RESPONSIBLE IN THE PRODUCTIVE CHAINS			Jose Stalin Rojas Amaya	josestalinrojas@gmail.com	Universidad Nacional de Colombia	1341				
				Olmo Alfredo Chiquillo Barragán	oachiquillo@unal.edu.co	Universidad Nacional de Colombia	1341				
	16:00 - 1			135	Coffee Break	135					

Note: Each paper has an ID that is used to identify the discussant. For instance, the presenter of paper 1112 is supposed to discuss paper 1111.

- The presenter of The first paper in each session is to act as The Chair of that session. Room assignments in parentheses.

Day	Time	Session Number	Session	Paper ID	Title	Authors	email	Affiliations	Discussant	
Thursday	16:30 - 1	141	Growth and Evolution of Cities (Republicano)	1411	BACKGROUNDS OF THE INDUSTRIALIZATION IN MEXICO CITY AND ITS INFLUENTIAL AREAS	Javier Lapa Guzmán	timito26@hotmail.com	Universidad Nacional Autónoma de Mexico	1412	
						Miriam Román Gutiérrez	miriam_carter@hotmail.com	Universidad Nacional Autónoma de Mexico	1412	
				1412	TECAMAC: FROM EXPANDED PERIPHERY TO BICENTENNIAL CITY?	Alfonso Rivas Cruces	arc@correo.azc.uam.mx	Universidad Autónoma Metropolitana, Azcapotzalco	1413	
				1413	CANADIAN URBAN HIERARCHY 1971-2001	Ms Aurélie LALANNE	lalanne_aurelie@hotmail.com	University of Bordeaux (PhD student)	1411	
		142	Environment and Amenities in Cities (Colonial)	1421	DISTANCES FROM URBAN PRODUCTION EXTERNALITIES AND CONSUMER AMENITIES: MAPPING THE ECONOMICS OF REMOTENESS		Dan S. Rickman	_	Oklahoma State University	1422
							Kamar Ali	_	University of Saskatchewan	1422
							M. Rose Olfert	_	University of Saskatchewan	1422
							Mark D. Partridge	partridge.27@osu.edu	Ohio State University	1422
				1422	THE INDUSTRIAL CONCENTRATION EFFECT CONCERN ENVIRONMENTAL INNOVATION: THE CASE OF POLO INDUSTRIAL DE MANAUS (BRAZIL)		José Nilo de Oliveira Júnior	josenilo@ufpa.br	Universidade Federal do Pará	1423
							Marcelo Bentes Diniz	mbdiniz2007@hotmail.com	Universidade Federal do Pará	1423
							Márcia Jucá Teixeira Diniz	_	Universidade Federal do Pará	1423
				1423	URBAN DYNAMYC EVALUATION FOR THE CITY OF ENVIGADO		Alejandro Betancourt A	abetan16@eafit.edu.co	EAFIT University	1421
			Jose Luis Franco			jfranco7@eafit.edu.co	Research in Spatial Economics (RISE-group). EAFIT University	1421		
			Luis Antonio Quintero			lquinte3@eafit.edu.co	Research in Spatial Economics (RISE-group). EAFIT University	1421		
		143	Free Trade and Growth (Contemporáneo)	1431	FACING CHALLENGES OF FREE TRADE AGREEMENTS THROUGH DEPLOYMENT OF STRATEGIC POLICIES TOWARDS REGIONAL INTEGRATION, USING INTELLIGENT INFRASTRUCTURE		Klaus Banse	k.banse@its-colombia.org	ITS Colombia	1432
						1432	SPATIAL ASPECTS OF TRADE LIBERALIZATION IN COLOMBIA: A GENERAL EQUILIBRIUM APPROACH		Eduardo A. Haddad	ehaddad@usp.br
					Fernando S. Perobelli			fernando.perobelli@uff.edu.br	Federal University of Juiz de Fora, Brazil	1433
					Geoffrey. J. D. Hewings			hewings@uiuc.edu	Regional Economics Applications Laboratory, UIUC, USA	1433
					Jaime Bonet			jaimebonet@yahoo.com	Interamerican Development Bank	1433
				1433	THE EFFECT OF TRADE ON REGIONAL DISTRIBUTION IN MEXICO	Rafael Garduño-Rivera	rgardun2@illinois.edu	University of Illinois at Urbana-Champaign	1434	
		1434	THE NORTH AMERICAN FREE TRADE AREA FULFILLED ITS PROMISE? AN ASSESSMENT AFTER 15 YEARS	Bernard L. Weinstein	bernard.weinstein@unt.edu	University of North Texas	1431			
		144	Spatial Econometrics: Methods and Applications I (San Sebastián del Pastelillo)	1441	THE SPATIAL AGGLOMERATION OF EDUCATED PEOPLE IN COLOMBIA		Juan Tomas Sayago	juantomas.sayago@gmail.com	Universit degli studi di Pavia	1442
						1442	SPATIAL EFFECTS IN HEDONIC PRICE MODELS: A GIS-BASED ASSESSMENT		Juan Ignacio Zoloa	juanignaciozoloa@yahoo.com.ar
	Raúl Sánchez			ros@mail.utexas.edu	CEDLAS– UNLP – University of Texas at Austin			1443		
	Juan C. Duque			jduquec1@eafit.edu.co	EAFIT			1441		
1443	THE MAX-P-REGION PROBLEM				Luc Anselin	luc.anselin@asu.edu	Arizona State University	1441		
			Sergio J. Rey	srey@asu.edu	Arizona State University	1441				

Note: Each paper has an ID that is used to identify the discussant. For instance, the presenter of paper 1112 is supposed to discuss paper 1111.  
- The presenter of The first paper in each session is to act as The Chair of that session. Room assignments in parentheses.

Day	Time	Session Number	Session	Paper ID	Title	Authors	email	Affiliations	Discussant
Friday	9:00 - 11	211	New Economic Geography	2111	ANALYSIS OF THE COMPETITIVENESS OF THE COLOMBIAN DEPARTMENTS FROM THE PERSPECTIVE OF TRADE THEORY AND NEW ECONOMIC GEOGRAPHY	Daniel Valderrama	--	--	2112
			(Republicano)	2112	ON COURNOT'S PROBLEM AND THE NEW ECONOMIC GEOGRAPHY	Héctor Mauricio Posada Duque	hmposada@economicas.udea.edu.co	Universidad de Antioquia	2112
						Jorge Lotero Contreras	jlotero@agustinianos.udea.edu.co	Universidad de Antioquia	2112
						Ana M. B. Barufi,	--	--	2113
						Eduardo A. Haddad	ehaddad@usp.br	University of São Paulo	2113
						Jaime Bonet	jaimebonet@yahoo.com	Interamerican Development Bank	2113
					Silvio M. A. Costa	--	--	2113	
				2113	THE DYNAMICS OF SPATIAL AGGLOMERATION IN CHINA: AN EMPIRICAL ASSESSMENT	Ana Isabel Moreno-Monroy	A.I.Moreno.Monroy@rug.nl	University of Groningen	2111
		212	GIS & Spatial Analysis Applications II	2121	A COMPUTATIONALLY EFFICIENT FORMULATION FOR THE ALDSTADT AND GETIS AMOEBA ALGORITHM	Alejandro Betancourt A	abetan16@eafit.edu.co	EAFIT University	2122
			H. Velasquez			--	Research in Spatial Economics (RISE-group). EAFIT University	2122	
			Jose Luis Franco			jfranco7@eafit.edu.co	Research in Spatial Economics (RISE-group). EAFIT University	2122	
			Juan C. Duque			jduquec1@eafit.edu.co	EAFIT	2122	
						2122	ECONOMIC GROWTH IN THE MUNICIPALITIES IN RIO GRANDE DO SUL: A SPATIAL ANALYSIS FROM 1970 TO 2000	Izete Pengo Bagolin	lzete.bagolin@puccrs.br
						Matheus Lisboa	matheus.lisboa@gmail.com	Pontificia Universidade Católica do Rio Grande do Sul	2123
				2123	VISUALIZING REGIONAL, HISTORICAL AND CULTURAL HERITAGE USING GIS AND MULTIDIMENSIONAL SCALING- THE CASE OF MINAS GERAIS /BRAZIL	Altino Caldeira	--	Pontifical Catholic University of Minas Gerais	2121
						Joao Francisco de Abreu	jofabreu@hotmail.com	Pontifical Catholic University of Minas Gerais	2121
		213	Regional Policies	2131	EFFICIENCY DETERMINANTS OF LOCAL GOVERNMENT SPENDING ON EDUCATION AND HEALTH: THE CASE OF CEARA.	Daniel A. Feitosa Lopes	danielfeitosa@ipece.ce.gov.br	Institute for Research and Economic Strategy of Ceará	2132
			Marcelo Ponte Barbosa			mponte@ipece.ce.gov.br	Institute for Research and Economic Strategy of Ceará	2132	
			Marcos Costa Holanda			holanda@ipece.ce.gov.br	Institute for Research and Economic Strategy of Ceará	2132	
			Nicolino Trompieri Neto			nicolino@ipece.ce.gov.br	Institute for Research and Economic Strategy of Ceará	2132	
						2132	EVALUATION OF REGIONAL POLICIES. A MODEL ON THE MACROECONOMIC EFFECTS	Juan R. Cuadrado-Roura	jr.cuadrado@uah.es
						Simon Sosvilla-Rivero	--	Complutense University, Madrid	2133
				2133	PERSONAL AND REGIONAL REDISTRIBUTION THROUGH PUBLIC FINANCE. THE CASE OF PROVINCIAL GOVERNMENTS IN ARGENTINA.	Alberto Porto	alberto@depeco.econo.unlp.edu.ar	Universidad Nacional de La Plata - Argentina	2131
			Cecilia Peluffo			--	Universidad Nacional de La Plata - Argentina	2131	
			Walter Alberto Cont			Walter@fiel.org.ar	Universidad Nacional de La Plata - Argentina	2131	

Note: Each paper has an ID that is used to identify the discussant. For instance, the presenter of paper 1112 is supposed to discuss paper 1111.

- The presenter of The first paper in each session is to act as The Chair of that session. Room assignments in parentheses.

Day	Time	Session Number	Session	Paper ID	Title	Authors	email	Affiliations	Discussant		
Friday		214	Spatial Econometrics: Methods and Applications II	2141	ANALYSIS OF SPATIAL CONVERGENCE OF AGRICULTURAL PRODUCTIVITY FOR THE MUNICIPALITIES OF THE AMAZON (1995-2005)	André Luiz Ferreira e Silva	_	Universidade Federal do Pará	2142		
						José Nilo de Oliveira Júnior	josenilo@ufpa.br.	Universidade Federal do Pará	2142		
						Marcelo Bentes Diniz	mbdiniz2007@hotmail.com	Universidade Federal do Pará	2142		
			(San Sebastián del Pastelillo)	2142	LOCALIZATION OF NEWCOMERS IN MANUFACTURING AND SERVICES IN MEXICO: A SPATIAL ECONOMETRIC ANALYSIS FOR 2004	Gustavo Félix Verduzco	gfelix@cise.uadec.mx	Universidad Autónoma de Coahuila	2143		
						Miguel Ángel Quirarte Lugo	_	Universidad Autónoma de Coahuila	2143		
						Múltiple dimensiones de crecimiento regional económico: el caso de Brasil, 1991-2000	Guilherme Mendes Resende	G.Resende@lse.ac.uk	Instituto de Pesquisa Econômica Aplicada	2144	
						2143	THE IMPACT OF MIGRATION ON CHILEAN POPULATION SPATIAL CONCENTRATION	Francisco Rowe	_	Universidad Católica del Norte, Chile	2141
2144	Patricio Aroca	paroca@ucn.cl	Universidad Católica del Norte, Chile	2141							
11:00 - 1	215	Coffee Break	215								
11:30 - 1		222	Growth and Convergence (Republicano)	2221	BEYOND INCOME: CONVERGENCE IN LIVING STANDARDS. THE COLOMBIAN CASE	Edgard Moncayo	edgardmoncayo@yahoo.com	Universidad Central	2222		
						2222	CONVERGENCE IN THE CANADIAN PROVINCES: EVIDENCE USING UNEMPLOYMENT RATES	Firouz Fallahi	_	University of Tabriz	2223
								Gabriel Rodríguez	gabriel.rodriguez@bcpr_gob.pe	Central Bank of Peru	2223
		2223	THE SOURCES OF SPANISH REGIONAL GROWTH AND CONVERGENCE	Francisco Pérez	_	Universitat de València	2221				
				Javier Quesada	_	Universitat de València - Spain	2221				
				Matilde Mas	matilde.mas@ivie.es	Universitat de València - Spain	2221				
		223	Latinamerican Case Studies (Colonial)	2231	DYNAMIC OF INCOME CONVERGENCE AND ECONOMICS GROWTH IN LATIN AMERICA	Luckas Sabioni Lopes	luckas.lobes@ufv.br	FEDERAL UNIVERSITY OF VIÇOSA - BRAZIL	2232		
						Sílvia Harumi Toyoshima	_	FEDERAL UNIVERSITY OF VIÇOSA - BRAZIL	2232		
				2232	IMPACT OF PRODUCTS WITH DESIGNATION OF ORIGIN (PDO) IN MEXICO, AS A SUBSET OF CULTURAL GOODS, FROM A REGIONAL ECONOMY APPROACH	Manuel Pérez Tapia	homo.economicus@hotmail.com	Universidad Nacional Autónoma de Mexico	2233		
						Marisol Velázquez Salazar	velazquezsm@hotmail.com	Universidad Nacional Autónoma de Mexico	2233		
		2233	PUBLIC SPENDING AND ECONOMIC CONVERGENCE IN LATIN AMERICA: A SPATIAL ECONOMETRIC APPROACH	Jorge Eduardo Mendoza Cota	jmendoza@mail.sdsu.edu	San Diego State University	2231				
		224	Income, Inequalities and poverty II (Contemporáneo)	2241	A SOCIAL HISTORY OF THE XXTH CENTURY. EVIDENCE FROM COLOMBIAN MUNICIPALITIES	Alejandro Gaviria	agaviria@uniandes.edu.co	Universidad de los Andes	2242		
						David Gelves	d-gelves@uniandes.edu.co	Universidad de los Andes	2242		
				2242	BRAZILIAN SPATIAL DYNAMICS IN THE LONG RUN (1872-2000): "PATH DEPENDENCY" OR "REVERSAL OF FORTUNE"	Leonardo Monasterio	leonardo.monasterio@gmail.com	Federal University of Pelotas	2243		
				2243	SECOND NATURE GEOGRAPHY AND REGIONAL INCOME DISPARITIES IN COLOMBIA	Jesús López-Rodríguez	jelopez@udc.es	University of A Coruña, Spain	2241		
					María Cecilia Acevedo	mcacevedov@gmail.com	Harvard Kennedy School	2241			
13:00 - 1	225	Lunch	225	(Room: Sports Bar)							

Note: Each paper has an ID that is used to identify the discussant. For instance, the presenter of paper 1112 is supposed to discuss paper 1111.

- The presenter of The first paper in each session is to act as The Chair of that session. Room assignments in parentheses.

Day	Time	Session Number	Session	Paper ID	Title	Authors	email	Affiliations	Discussant
Friday	14:30 - 1	231	Growth in Cities (Republicano)	2311	BOGOTÁPOLIS: THE LOCATION OF MANUFACTURING JOBS IN A DEVELOPING METROPOLIS, THE CASE OF BOGOTÁ 1992 - 2003	Javier Pérez Burgos	jip33@cornell.edu	Cornell University	2312
				2312	MARKET POTENTIAL AND SPATIAL CONCENTRATION. MEXICO 1988-2003.	Manuel Damián Lecumberri Fernández	lecumberri2000mx@yahoo.com.mx	Universidad Nacional Autónoma de Mexico	2313
				2313	STAYING ON TOP. WHY CITIES MOVE UP (OR DOWN) THE URBAN HIERARCHY: AN INTERNATIONAL COMPARISON OVER A HUNDRED YEARS.	Jonathan Denis-Jacob Mario Polèse	Jonathan_Denis-jacob@UCS.INRS.Ca mario.polese@ucs.inrs.ca	University of Quebec - Canada Universiy of Québec - Canada	2311 2311
		232	Input-Output & CGE (Colonial)	2321	A SIMULATION ANALYSIS OF TECHNOLOGICAL PROPAGATION EFFECTS OF MARSHALLIAN EXTERNAL ECONOMIES: A CGE APPROACH	Hirotaada KOHNO	--	University of Tsukuba	2322
						Hiroyuki SHIBUSAWA	shibu@hse.tut.ac.jp	Toyohashi University of Technology	2322
						Yoshiro HIGANO	higano@jsrsai.envr.tsukuba.ac.jp	University of Tsukuba	2322
				2322	ASSESSING THE SPATIAL EFFECTS OF THE U.S.- COLOMBIA TRADE PROMOTION AGREEMENT ON COLOMBIAN DEPARTMENTS: A GENERAL EQUILIBRIUM APPROACH	Leandro de Hollanda	leandrodehollanda@usp.br	University of São Paulo	2323
						Marco Laes	marco.laes@usp.br	University of São Paulo	2323
				2323	ELASTICITIES OF REGIONAL TOTAL FACTOR PRODUCTIVITY ON COLOMBIAN ECONOMY: A SPATIAL CGE APPROACH	Daniel Grimaldi	dgrimaldi.daniel@usp.br	University of São Paulo	2321
	Guilherme de Moraes Attuy	guilherme.attuy@usp.br	University of São Paulo			2321			
	233	Regional Growth and Location Patterns (Contemporáneo)	2331	DO URBAN GROWTH CONTROLS HURT REGIONAL ECONOMIC GROWTH?	Boaz Nandwa, Ph.D.	bnandwa@aud.edu	American University in Dubai	2332	
					Laudo Ogura	--	Grand Valley State University - USA	2332	
			2332	LOCATION PATTERNS AND INDUSTRIAL GROWTH IN MÉXICO, 1993-2007	Jesús A. Treviño C.	trevinomty@gmail.com	Universidad Autonoma de Nuevo Leon-Mexico	2333	
					Ardeshir Anjomani	--	School of Urban and Public Affairs	2333	
	2333	REGIONAL ECONOMIC GROWTH UNDER TRADE LIBERALIZATION IN MEXICAN MANUFACTURING: AN ANALYSIS BASED ON GROWTH ACCOUNTING	Adrián de León Arias	leonarias@yahoo.com	Universidad de Guadalajara	2331			
	234	Sustainable Development II (San Sebastián del Pastelillo)	2341	DYNAMIC CARBON TRADING USING THE BOLTZMANN DISTRIBUTION	Ji-Won Park	jp429@cornell.edu	Cornell University	2342	
					2342	FOSSIL-FUELS, BIO-FUELS, AND FOOD: RANKING PRIORITIES!	Guilherme Leite da Silva Dias	guilhoto@usp.br	University of Sao Paulo
Joaquim José Martins Guilhoto			guilhoto@usp.br	University of Sao Paulo			2343		
2343			HYDRIC SUPPLY INCREASE AND ECONOMIC DEVELOPMENT: A VALUATION OF ECONOMIC IN PERSPECTIVE AFTER THE BRAZILIAN PROJECT OF THE TRANSFER OF THE SÃO FRANCISCO RIVER.	Eduardo Kaplan Barbosa	eduardo.barbosa@bndes.gov.br	Brazilian Development Bank	2341		
16:00 - 1	235	Coffee Break	235	--	--	--	--	--	

Note: Each paper has an ID that is used to identify the discussant. For instance, the presenter of paper 1112 is supposed to discuss paper 1111.

- The presenter of The first paper in each session is to act as The Chair of that session. Room assignments in parentheses.

Day	Time	Session Number	Session	Paper ID	Title	Authors	email	Affiliations	Discussant	
Friday	16:30 - 1	241	Local Governments and Decentralization  (Republicano)	2411	FISCAL DECENTRALIZATION IN BRAZIL – THE CREATION OF NEW MUNICIPALITIES DURING THE 1990S	Tiago Cisalpino Pinheiro	tcisalpino@gmail.com	Pontifical Catholic University of Minas Gerais	2412	
				2412	INSTITUTIONAL ASPECTS OF THE FISCAL DECENTRALIZATION PROCESS: COMPARATIVE ANALYSIS OF THE PERFORMANCE PUBLIC FINANCES BETWEEN BRAZIL AND COLOMBIA IN THE LAST TWO DECADE.	João Matos Filho	matosfilho@gmail.com	Universidade Federal do Rio Grande do Norte	2413	
						William Gledson	williangledson@gmail.com	Universidade Federal do Rio Grande do Norte	2413	
				2413	SUB-NATIONAL LOAN AUTHORIZATION IN BRAZIL: IS THERE A ROOM FOR OPPORTUNISTIC POLITICAL BEHAVIOR?	Ciro Biderman	biderman@MIT.EDU	Massachusetts Institute of Technology	2411	
		242	Migration and Development  (Colonial)	2421	IMPACT OF INTERNATIONAL MIGRATION ON HOUSEHOLD BEHAVIOR IN NICARAGUA	Mónica L. Parra Torrado	mlparrat@gmail.com	FEDESARROLLO	2422	
				2422	MIGRATION AND DEVELOPMENT: EMPIRICAL APPLICATIONS BASED ON THE SOLOW-SWAN MODEL WITH MIGRATION	Andre Braz Golgher	agolgher@cedeplar.ufmg.br	Cedeplar/UFMG	2423	
						Lizia Figueiredo	=	Cedeplar/UFMG	2423	
						Roberto Santolin	=	Cedeplar/UFMG	2423	
				2423	THE INFLUENCE OF GOVERNMENT CASH TRANSFERS ON MIGRATION	Carlos R. Azzoni	cazzoni@usp.br	University of São Paulo	2421	
		243	R&D and Productivity  (Contemporâneo)	2431	BARRIERS TO ENTRY, MARKET EXPERIMENTATION AND AGGREGATE PRODUCTIVITY		Adriana Kugler	=	=	2432
							John Haltiwanger	=	=	2432
							Marcela Eslava	meslava@uniandes.edu.co	Universidad de los Andes	2432
							Maurice Kugler	=	=	2432
				2432	FROM TERRITORIAL INNOVATION SYSTEMS -TIS- TO ANTHROPOLOGY OF KNOWLEDGE, TOWARD A "KNOWING SHARED MODEL"	Bernardo Herrera	bherrera@uniandes.edu.co	Universidad de los Andes	2433	
				2433	MULTIFACTOR PRODUCTIVITY IN THE BRAZILIAN AGROINDUSTRY	GONÇALVES, DANIEL F.	danielf_goncalves@yahoo.com.br	University of North Pioneer	2431	
						PARRÉ, JOSÉ L.	=	State University of Maringá	2431	
		244	Service Sector  (San Sebastián del Pastelillo)	2441	A DYNAMIC MULTI-OBJECTIVE LOCATION/ALLOCATION MODEL FOR THE AIR CARGO INDUSTRY		Samuel J. Ratick	sratick@clarku.edu	Clark University	2442
							Yuko Aoyama	yaoyama@clarku.edu	Clark University	2442
							Guido Schwarz	gschwarz@unal.edu.co	Universidad Nacional de Colombia	2442
				2442	EVALUATING COMPETITIVE RETAIL STRATEGIES IN AN URBAN COMMERCIAL DISTRICT WITH SELF-ORGANIZING MAPS		Jean-Claude Thill	Jean-Claude.Thill@uncc.edu	University of North Carolina at Charlotte	2443
	Masakuni Kakoi					kakoi@econ.fukuoka-u.ac.jp	Fukuoka University	2443		
	Saburo Saito					saito@fukuoka-u.ac.jp	Fukuoka University	2443		
2443	TERTIARY SERVICE AND LOCAL DEVELOPMENT				Fernando Salgueiro Perobelli	fernando.perobelli@uff.edu.br	Federal University of Juiz de Fora- Brazil	2441		
		Kênia Barreiro Souza	=	Federal University of Juiz de Fora- Brazil	2441					
		Suzana Quinet de Andrade Bastos	quinet.bastos@uff.edu.br	Federal University of Juiz de Fora- Brazil	2441					

## ABSTRACTS

1111	INFLUENCE OF THE LOCAL GOVERNMENT'S POLITICAL ORIENTATION ON HOUSING PRICES	Alejandro Garcia Pozo , alegarcia@uma.es	Universidad de Málaga - Spain
------	---	---	-------------------------------

Housing price growth can have different causes, from both a demand and supply perspective. The type of management developed by the political parties in the municipalities can be included in the latter category. Hedonic methodology is used as well as some dummy variables within the models to represent this effect.

This paper suggests that management by “independent” political groups (i.e. without a clear political ideology), that have governed consecutively during the three last terms, adds an additional cost to the total price of the houses. This cost can reach 23.92% of the total housing price, according to the analyzed submarket, in contrast to the situation where political change in the municipal governments takes place. Three criteria are used to test statistically the existence of segmentation in the housing market: the weighted mean of the standard errors of the segmented models, Chow F-test on the structural equality of parameters between two estimations and, finally, Tiao-Goldberger test of individual differences in the estimated coefficients in the chosen submarkets.

1112	DID WELFARE REFORM IN THE U.S. INDUCE A RACE TO THE BOTTOM IN CASH ASSISTANCE TO THE POOR? EVIDENCE USING STATES' WELFARE EXPENDITURES FROM 1997-2006	Luz Amparo Saavedra, lasaavedra@stthomas.edu	University of St. Thomas
------	---	---	--------------------------

Using Spatial Econometric techniques we test for the presence of a causal effect of neighboring states' welfare generosity on each other in the United States over the period 1998-2006. The theoretical literature on income redistribution predicts that a decentralized system of income transfers from the wealthy to the poor is subject to the presence of inter-jurisdictional externalities that lead to interjurisdictional competition in welfare provision that result on undesirable low levels of income assistance to the poor. Since 1998 the U.S. states are operating their own welfare programs under the Temporary Assistance for Needed Families (TANF) federal block grant program. This highly decentralized U.S. welfare system provides an excellent opportunity to re-asses the welfare competition hypothesis. After controlling for year and state-specific effects results indicate evidence of welfare interdependence. However, we also find evidence of dependence in unobservables and in some cases we did not obtain the expected signs.

1113	URBAN AND HOUSING POLICIES, AND THEIR IMPACT ON THE URBAN AND ENVIREMANTAL REALITY IN MEXICO: THE CASE OF THE METEPEC MUNICIPALITY	Alberto Javier Villar Calvo, betovillarmx@yahoo.com.mx	Universidad Autónoma del Estado de México
		ALEJANDRO DE LAS HERAS ISLAS, aheras38@hotmail.com	

This work reflects on the impacts of the financial policies of the publicly funded housing sector, as well as the impacts of urban planning, in the last 30 years. These impacts can be seen in the configuration of urban space in Mexico, its environment, and the socio-spatial structure of the cities.

We use as a case study the municipality of Metepec, in the metropolitan area of Toluca. Toluca itself is located in the Mexico City's megalopolis.

We begin by recognizing that urban planning is an ex-post practice, and by documenting the fragmented nature and corporative mechanisms of publicly funded housing in Mexico. Similar characteristics apply to real estate marketing. Therefore, we hypothesize that official housing programs, especially those funded by the Instituto Nacional del Fondo para la Vivienda de los Trabajadores (INFONAVIT) and the Instituto de Seguridad Social del Estado de México (ISSEMYM), as well as post-1980 urban policies, have lacked action guidelines, and concurrent objectives. These facts have been fundamental in the configuration of a disarticulated urban space, its fragmentation, and urban sprawl, which also displays a deep socio-spatial segregation, and sharp environmental impacts.

This reflection is supported by a study of the different real estate marketing promotions in the municipality of Metepec, from the viewpoint of the financial instruments used by the aforementioned institutions, from the 1970s to date. From the case study, we show the environmental impact due to the constructive systems, the modalities of urban space used in housing marketing, as well as their impacts on socio-spatial structure in the new urban spaces.

Based on this diagnosis, and by way of conclusion, alternative scenarios are developed to articulate environmental, urban and housing policies, in order to improve the traditional policy instruments aimed at city organization in Mexico.

1121	CULTURAL DEVELOPMENT POTENTIAL OF THE BRAZILIAN STATES: A SPATIAL ANALYSIS	Amir Neto , amirneto@gmail.com	Federal University of Juiz de Fora- Brazil
		Fernando Perobelli, fernando.perobelli@ufjf.edu.br	Federal University of Juiz de Fora- Brazil

The aim of this research is the determination of the cultural development potential (CDP) from the 27 Brazilian's Federation's units and verify the spatial structure of the CDP. In order to reach the aim we use the factorial analysis and the exploratory spatial data analysis (ESDA). The factorial analysis will enable us to construct factors that explain the potential and ranking the states in terms of its degree of cultural development potential. We use a survey from IBGE and Cultural Ministry as database. This survey presents a great diversity of data for all Brazilian states. After the calculus of CDP we verified the idea of spatial association through the ESDA. The paper was organized as follows: a) a brief discussion about cultural economics; b) the presentation of the methodology; c) the discussion of results and d) some conclusions. We can highlight that we could find three factors that explain the cultural development potential among the Brazilian states; that there is a high degree of correlation between Gross Domestic Product (GDP) and CDP; that there is two clusters in the country, one high-high in the south-southeast regions and other low-low in part of the north region.

1122	SPRAWL MODEL OF ECONOMIC AND POPULATION OF THE METROPOLITAN AREA OF MEXICO CITY, 1993-2003	Luis Quintana-Romero, luquinta@apolo.acatlan.unam.mx	Universidad Nacional Autónoma de Mexico
		Normand Eduardo Asuad Sanén, nasuad@yahoo.com	Universidad Nacional Autónoma de Mexico
		Roberto Ramírez Hernández, robrami@unam.mx	Universidad Nacional Autónoma de Mexico

Mexico City responded to monocentric patterns until the mid-forties, when downtown D.F. (Mexico City), virtually agglomerated all economic activity. Afterwards a pattern of economic dispersion emerges, which results in a economic and population sprawl which exceeds the legal border of the City into the states of Mexico and Hidalgo. By the year 2003, Mexico City was integrated by 12 delegations, 57 municipalities from the state of Mexico and 1 from the state of Hidalgo, conforming a large metropolitan area that contains about 36% of the total population of the country.

In this study, we propose a systematic and formal model that explains the formation of this polycentric city. To which we apply the technique of Spatial Exploratory Data Analysis (ESDA), which identifies

sub-centers of economic activity through the use of the Moran's index, and LISA analysis. A confirmation analysis is performed through a model panel that identifies the causal forces that operate in the centripetal and centrifugal forces that configure the growth of the studied region.

Using available data from Mexico economic Censuses (1993 to 2003) and its territorial breakdown at the AGEB level (geostatistics core area), we identify economic sub-centers for the industry, trade and services activities.

The results show that the industry tends to move away from the central business district (CBD). At first, industry was located in ranked nodes relatively close to the CBD, where these places were outskirts of the small Mexico City of the 40's. Afterwards, the locations of traditional industrial suffered the increase in the cost of urban land and had to relocate to the new suburbs of the city. The areas of the suburbs that offered more advantage, were those close to transportation nodes and those located north of the city with the intention of maintaining access to the north of the country.

The situation for trade in the Metropolitan Area is diametrically opposed to that of the industry. There are large concentrations of business in the city, three sites where most of this activity is carried out: Downtown Mexico City, the Central Market and the so-called Anillo de Circunvalacion corridor, which homes the neighborhood of La Merced. Trade (especially the wholesale which has the largest concentrations of employment) tends to be located in the CBD while the retail trade tends to follow the concentrations of population. The wholesale services maintained a pattern similar to the metropolitan wholesale trade, that is, they tend to be located within or close to the CBD. There are few changes between 1993 and 2003.

1123	THE INCOME AND POPULATION EVOLUTION IN THE CITIES OF RIO GRANDE DO SUL STATE BETWEEN 1970 AND 2000: A SPATIAL ANALYSIS	Izete Pengo Bagolin , Izete.bagolin@pucrs.br	Pontificia Universidade Católica do Rio Grande do Sul
------	--	---	---

The state income and population faced significant changes during the last four decades which are not necessarily in same direction. This work studies how income and population have evolved in the cities of Rio Grande do Sul between 1970 and 2000. The data set comes from the Brazilian census. We apply a conversion system, which has been created through a new methodology proposed by the Economy and Statistician Foundation of Rio Grande do Sul – FEE. Such methodology reduces data problems caused by the process of municipality emancipation. By utilizing ESDA it was possible to construct global and local index to analyze spatial correlation. The results show that spatial aspects cannot be ignored; rather they indicate there has been a significant change in the map of clusters across cities in terms of both income and population.

1131	AGGLOMERATION ECONOMIES AND INDUSTRIAL DEVELOPMENT: HYPOTHESES AND PRACTICES IN CHILE	Daisuke Nakamura, dnakamura@ucn.cl	Universidad Católica del Norte
		Miguel Atienza, miation@ucn.cl	Universidad Católica del Norte

The notion of agglomeration economies plays an important role together with the analyses of business location decisions and industrial development. A hypothetical model is introduced in this paper to clarify those relationships, which is followed by a case study of Chile in recent two decades. It is revealed that the country has two different types of location forces, characterized by a clear spatial pattern in capital and peripheral areas, which are respectively relevant to urbanization and localization types of agglomeration economies. In addition, further attempt is made to provide practical remedies for accumulative issues of severe spatial concentration in Santiago and for spatial exclusions in local areas, referring to recent changes in economic spatial structure and foreign trade.

1132	ECONOMICAL AGGLOMERATIONS IN	Jackson T. Bittencourt, jbittencourt@up.edu.br	University Positivo
------	------------------------------	---	---------------------

	BRAZIL: DISTINCTIVE APPROACH, SIMILAR TECHNICS.	Olga Lúcia C. De Freitas Firkowski,	Federal University of Paraná - Brazil
--	---	-------------------------------------	---------------------------------------

One of the questions with big importance in the contemporary literature of the economical geography is in the point of economics agglomerations for instance, the industrial districts in Italy, the so-called “clusters” in the United States of America, and the Local Productive Arrangements in Brazil - serving to instruct the local development. This agglomerations tends to represent different configurations, but shows distinctive degrees of development, therefore its economical and social potential give its different forms in the area.

The search for explication of the agglomeration phenomenon passed by the theory of the industrial localization and had its teorical base in the industrial districts of Marshall. It turned to be the most spreaded concept up from the productive reconstruction in the 1960,s to 1970,s. It shows experiences of success in the economies of America, Italy and Germany (Silicon Valley, Third Italy and Baden-Württemberg), and it’s coming to consecrate itself due to its productive efficacy and competitiveness, and is highlighting itself like a phenomenon at the present time in a new manner of capitalists agglomeration. This way it goes to be a thematic of fundamental importance for new researches.

In the brazilian case the agglomerations are not recent phenomenon, but came to be a new dynamic in the decade of the 1980,s and the 1990,s. This new dynamic may be associated with three questions: Debility of economic growth under the leadership of the state or multinationals; The crisis on the job market, which created investments in little businesses, as an alternative for gains; And the growths of the entrepreneurial culture in the country.

From this context surged in Brazil an intensely production of “papers“ by important educational institutions with the aim to appraise principally the identify agglomerations, in wish to identify settlements to develop policies for local development.

One of the principal discussions about the criterion to define the productive agglomeration may be seen by the assignments of the Federal University of Rio de Janeiro and the University of Campinas by the assignments of Cassiolato and Suzigan. Respective they establish distinctive topologies to explain the phenomenon of the agglomeration, as well as its stages.

In the decade of 1990 the brazilian literature used to define the agglomerations as “clusters“ a term used by the american literature, to describe this phenomenon. The necessity of a typology for the national ambit became intelligible due to the existent differences between the relationship of the local economic agents, with the representation of the State, due to this the conception of the Local Productive Arrangements, entered in the development of the agglomerations.

The search for this typology seemed to have finished. However some authors are discussing vehement as well the conception, as also the methods of data-acquisition. This questioning is based on the lacking of criterions for the approaches and statistical techniques more rigorous for the data acquisitions and selection of the agglomerations which would turn the public and private politics more efficient.

This is the problematic to be worked on this text in which, based on the theoretical discussion authors selected, the concept of Local Productive Arrangement will be reviewed from different approaches, highlighting the need for a rereading.

1133	INDIVISIBILITIES, SYNERGY AND PROXIMITY: THE NEED FOR AN INTEGRATED APPROACH TO AGGLOMERATION ECONOMIES	Roberta Capello , roberta.capello@polimi.it	Politecnico di Milano - Italy
------	---	--	----------------------------------

The aim of the paper is to provide a review of the literature on agglomeration economies through an historical perspective, in terms of both theoretical and empirical studies developed. The authors are aware that recent reviews have been made (e.g. Rosenthal and Strange, Handbook of Urban and Regional Economics, 2004); the paper builds upon these recent contributions with the aim to underline additional contributions existing in the literature, to draw some suggestions on steps achieved and challenges that regional scientists still have to face on the issue of agglomeration economies.

The paper bases its review on a taxonomy of approaches, built on different dimensions that are behind the concept of agglomeration economies, namely:

- a geographical dimension;
- an industrial dimension;
- a socio-economic and cultural dimension, more recently highlighted as a cognitive dimension.

These dimensions are present in the concept of agglomeration economies, and explain their nature, their scope and their intensity. As the paper underlines, over time they have been given a different importance; the focus on one of these dimensions has allowed the opening of different parts of the “black box” of agglomeration economies, reinforcing and enriching the concept from different perspectives. Moreover, the paper underlines that over time steps forward have been made by adopting a *multidimensional approach*, rather than one single dimension approach, enriching the large variety of approaches existing in the literature, and again providing in-depth understanding of the concept. The same taxonomy is used for the empirical analyses, were the different methodologies adopted to measure agglomeration economies are highlighted, linked to the different dimensions used.

The paper stresses two main issues. The first is that a socio-cultural/cognitive perspective, still today ignored by mainstream approaches to agglomeration economies, is an additional important conceptual dimension with which to understand the complex mechanisms whereby exchanges of knowledge, labour or intermediate goods take place in agglomerated areas. The second is that a *multidimensional approach* comprising the three different dimensions to the study of agglomeration economies makes it possible to overcome a deterministic approach to agglomeration economies and move instead towards a stochastic interpretation, opening the black box of this complex phenomenon.

1141	KNOWLEDGE FLOWS, GEOGRAPHY AND ECONOMIC DEVELOPMENT: A SOCIAL NETWORKS APPROACH FOR THE CASE OF PATENTS IN HIGH-TECH INDUSTRIES IN THE US	Luis Armando Galvis, lgalviap@banrep.gov.co	CEER -Banco de la Republica, Cartagena
------	---	--	---

Empirical testing of the effects of knowledge spillovers did not have much presence in the literature until scholars like Griliches (1980) and later Jaffe, Trajtenberg and Henderson (1993) started using patents to proxy for those sources of "new ideas" and patent citations to proxy for knowledge flows and spillovers. Why patent citations can be used to "measure" knowledge flows? People have the incentive to patent new inventions to benefit from the future royalties paid by whoever wants to use their innovation, as they have to cite previous innovations that were used as reference or that served as source of inspiration for the new innovation. The US Patents Office has a record of all the patents and the citations to previous patents and that is the source employed to build the structure of knowledge flows in most of the previous literature dealing with this issue, and this paper is no exception. My interest is specifically to test the relation between knowledge flows and geography and study the different behaviors in a group of high-tech sectors. Furthermore I am interested on relating those flows to economic development introducing some models from network theories, specifically dealing with graph theory to evaluate the extent to which the configuration of interdependences in the flows of knowledge may exert some influence on the economic performance of the Counties and Metropolitan Areas in terms of employment growth.

1142	IDENTIFYING INDUSTRY CLUSTERS IN COLOMBIA BASED ON GRAPH THEORY	Dairo Andres Gomez, dgomezca@eafit.edu.co	EAFIT University
		Juan C. Duque, jduquecl@eafit.edu.co	EAFIT University

Colombian economy is nearly to face a free trade agreement with the US. This new challenge requires from policy makers a deeper understanding of the structure of Colombian economy that allows them to design better strategies that ensure that this agreement will be mutually beneficial for both economies. The findings in this paper shed light on the understanding of the industry clusters in the Colombian economy. The analysis relies on a recent methodology proposed by Duque and Rey (2008) where intricated input-output linkages between industries are simplified using network analysis. In addition to other techniques for cluster identification available in the literature, this novel methodology allows

not only to classify each industry in a given cluster, but also to understand how industries are related to each other within their clusters. The results show that Colombian economy can be broken into twelve industry Clusters. Each of these clusters is characterized in terms of their internal and external linkages. Also, an impact analysis based on input-output simple multipliers is carried out for each cluster as well as for each industry.

1143	STRATEGICALLY MANAGING ENTREPRENEURIALSHIP'S INNOVATIVE CAPACITY'	Maria Pinilla Ramirez, M.F.Pinilla.Ramirez@rug.nl	University of Groningen
------	---	--	-------------------------

This study explores the relationship between entrepreneurial strategies and the innovation performance of entrepreneurship. Among various entrepreneurial strategies, this paper investigates the effects of internal and external networking on firm's innovative capacity. The focus here is to explore entrepreneurial strategies specifically, the ones developing firm's internal capabilities and strategies enhancing external networking. Based on literature review, there is need to integrate, from an organizational network perspective, the strategic management framework and the innovation performance of entrepreneurships in order to develop a model that can explain the optimal effects/behaviour of the firm's internal and external interactions on management of organizational performance. There is relative few empirical evidence about models of successful management innovation and there is neither empirical studies focus on the relation between innovation and on network analysis which have developed a multitheoretical perspective as means to compare and integrate diverse theories. In short the research topic of this study has its roots on the integration of entrepreneurial (competitive behaviour) and strategic (advantage seeking) perspective in performing innovation. To account for the value creation process of entrepreneurial strategies -especially those that build internal capabilities and develop external networks- this paper combine three literature streams: the resource-based view of the firm, social capital theory and the strategic network perspective. This study expects that entrepreneurial may benefit when they are characterized by superior set of internal resources and an enhanced network structure, which enabled internal firm capabilities. Relational structures and social capital are two important conceptual for the present topic; first of all, their study should require a holistic level of analysis, they both are associated within the same level of analysis and simultaneously are outcomes and generators of each other at all firm's levels. Social structures among individual members of a firm are linked to social capital at different levels of analysis. First, when individuals use their direct and indirect ties to accomplish individual goals. Second, when social structure at individual level impacts social capital at higher levels of analysis. A research paper (Kratzer, Van Engelen & Leenders, 1998) found that the structure of social relationships between individuals affects their level of agreement and, therefore, their group performance; thus affecting outcomes at the firm level. Furthermore, individuals also might maintain relationships with firm's outsiders; in this case firms can draw social capital from its employee's contacts, leading to information or resource sharing (among others) (Gabbay & Leenders, 1999). Drawing on the above perspectives, this study expects that entrepreneurial may benefit when they are characterized by superior set of internal resources and an enhanced network structure, which enabled internal firm capabilities.

#### **Research Goal**

This study is exploring conditions under which innovative entrepreneurships can achieve a relative sustainable performance on a long term; analyze interfirm relationships; and will search for possible mechanisms that a firm need in order to be aligned with it's internal and the external network to successfully be innovative. The following are the study's general objectives: › To investigate, what and how innovation resources interact with the firm's internal and external networks. › To analyze the effect of the interaction between innovation resources (i.e., SME strategic), the internal network, external network of a firm on it's innovation capacity. It is the interest of the present study to research on small and medium enterprises (SMEs) in the Netherlands. Lazear (2002, p.1) wrote, "The entrepreneur is the single most important player in a modern economy". The efficiently transformation of knowledge into economic applications is a crucial factor in explaining macroeconomic growth.

1211	COMPETITIVE CAPABILITIES OF THE MEXICAN CITY SYSTEM. THE INSTITUTIONAL FAILURE	Guillermo E. Ibarra, gibarra@uas.uasnet.mx	Universidad Autónoma de Sinaloa
		Ana Luz Ruelas, aruelas@uas.uasnet.mx	Universidad Autónoma de Sinaloa

Under the NAFTA, the Mexican regional development became more unequal social and spatially. Only a few regions took advantages of the new open market environment, mostly the border northern states and the central Mexico. This is the same for the cities whom compete now globally. The study of the competitiveness of the cities is spreading in the country attended by agencies and the academia for raising a new public policy for the local development. In this paper we present a study of the competitiveness of the main 50 cities of Mexico. We estimate 60 indicators in four components: demographic and human advantages, advance economic sectors, institutional capabilities, and urban and sustainable development. With these elements we devise a general index of competitive capabilities. The group of the very high capability is led by Mexico City and Monterrey, the biggest urban centers of the country, and it is composed also by cities benefited by NAFTA. Nevertheless in the 13 there are coastal cities, Veracruz, the main port for international trade, Cancun the greatest tourist destination, and Ciudad del Carmen, the richest oil city. The study reveals a low impact of the institutional factors in the competitive capabilities of the Mexican cities. We found a kind of convergence by the worst institutional practices (corruption, a weak transparency and accountabilities) that undermine the economic development. For the contrary the factors of the traditional economic theory framework, like investment, productivity and human capital, overweight the general index. This conclusion highlight that the institutional bonus for the local economic development is very weak in the Mexico City system.

1212	INSTITUTIONS AND GROWTH: A DYNAMIC PANEL DATA ANALYSIS (1980-2004)	Flávio Vilela Vieira, flaviovieira@ufu.br	Federal University of Uberlândia
------	--	--	----------------------------------

The present paper evaluate on historical and empirical grounds growth models using a dynamic panel data analysis for a set of ninety one countries from 1980 to 2004, focusing on the role of institutions. The results suggest that Corruption, Bureaucracy and Law and Order are important to foster economic growth, together with other variables such as initial income level (convergence), human capital, government consumption and inflation (macroeconomic stability). The estimation using the GMM System seems to be more robust regarding the significance and expected coefficient signs for the variables used in our growth models. An increase in institutional quality indicators has a positive and significant impact on long run growth.

1213	THEORY OF ENDOGENOUS INSTITUTIONS AND EVIDENCES FROM AN IN-DEPTH FIELD STUDY IN INDONESIA	Iwan J. Azis,	Cornell University
		Maria M. Wihardja, mw465@cornell.edu	Cornell University

In this paper, we seek an alternative to the past institutional reforms by modelling institution as an endogenously determined parameter. We categorize institutions into three types: positively self-reinforcing institution, neutrally self-reinforcing institution, and negatively self-reinforcing institution. These institutions are endowed with different levels of initial social-economic factors, but they share the same past institutional effects, such as corrupt public institutions. We argue that the different initial social-economic levels create different self-reinforcement factors as described in Avner Greif's endogenous institution model. Then, we argue that different types of self-reinforcement factors reinforce different types of progress. This creates an evolution between welfare and institution. We show evidences of how pre-decentralization social conditions affect post-decentralization institutions. High Human Poverty Indexes in 1999 are associated with negative net effects of local capture on welfare, low quality and quantity of local leadership, and low participation levels. From our field study and theoretical frameworks, we conduct an Analytical Network Process analysis and we show that participation factor plays a significant role in determining how an institution and welfare evolve.

1221	CAPACITY-BUILDING TOOLS FOR LOCAL DEVELOPMENT: THE CASE OF INTEGRATED LOCAL DEVELOPMENT PROGRAMS (PISL) IN ITALY	Alberto Brugnoli,	IReR (Lombardy Regional Institute for Research) Milano
		Sabrina Bandera, c-bander@irer.it	IReR (Lombardy Regional Institute for Research) Milano

The paper illustrates the case of the **Integrated Local Development Programs (PISL - Programmi Integrati di Sviluppo Locale)** that have been carried out in Italy (Lombardy Region) since 2005. The PISL aim to enhance the socio-economic development of deprived areas according to a logic of integrated development (with regard to policies, tools, and resources).

The PISL are a set of multi-sectoral, coherently joined-up actions and projects, that share the objective of the development of a given territory. They are the fruit of partnerships between public and private actors – of institutional, economic, and social nature – such as municipalities, provincial councils, chambers of commerce, business associations, NGOs, etc. that share one or more goals for the development of a specific area.

The setting up and running of PISL has been supported by the Lombardy Regional Institute for Research (IReR).

IReR has accompanied the whole process of **definition, development and testing of methods and tools for managing the PISL** that could be incisive and could trigger capacity-building dynamics in the field of local development policies.

This goal has been pursued through action-research fieldwork. To this purpose, four workshops have been set up on the following themes:

- 1) building the capacity to plan, manage and self-evaluate local partnerships;
- 2) consolidating public-private partnerships;
- 3) developing, analysing and representing the territory and local strategies;
- 4) financial instruments.

As concerns PISL results and the research on this subject, the paper will notably focus on the topic of **capacity building in the field of local-development policies** and particularly on:

- the **organizational approach**, i.e. how to put in place and to manage PISL;
- the **implementation tools**, i.e. how to draft and carry out programs and to realize projects (“Toolbox for local development” realized for the research, see [www.irer.it/pisl/pisl](http://www.irer.it/pisl/pisl)).

The PISL and their methodology seem particularly significant for an experimental transfer to territorial contexts presenting one or more of the following features:

- peripheral nature (with a valuable environmental character);
- socio-economic weaknesses;
- institutional fragmentation;
- difficulties in developing public-private partnerships.

1222	NATIONAL AND INTERNATIONAL REPUTATION OR REGIONAL ENGAGEMENT: THE ROLE OF HIGHER EDUCATION INSTITUTIONS IN THE PROCESS OF REGIONAL DEVELOPMENT	Cássio Rolim, cassio.rolim@ufpr.br	Federal University of Paraná - Brazil
		Maurício Serra, serra@ufpr.br	Federal University of Paraná - Brazil

Universities have always contributed to the development of countries and the emphasis was on a national and international reputation, which means that the quest for knowledge was disconnected from regional environment. In fact, the concern with the Higher Education Institutions (HEIs) contribution to regional development is relatively recent and derives from an intense globalization and localization process and, at the same time, from a new way of looking at the competitiveness of regions and at regional innovation systems. In this regard, the local environment became essential for determining the locational decision of enterprises insofar as the local availability of knowledge and skills is as fundamental as physical infrastructure, being regionally engaged universities not only a key

locational factor, but also an important tool for regional development. Thus, the engagement of universities with others regional actors is expected in order to provide responses to regional needs, which includes two important aspects: the provision of lifelong learning and the creation of knowledge-intensive employments that will allow graduates to find local jobs and remain in their regions. The main objective of this article is to analyse the cooperative efforts between HEIs in the northern Parana region, southern Brazil, and their regional partners in the pursuit of regional development.

1223	RESTRUCTURING OF THE MEXICAN ECONOMY AND CHANGES TO THE REGIONAL PRODUCTION PATERNS IN MEXICO 1980-2005	Arturo Ranfla González , aranfla@uabc.mx	Universidad Autónoma de Baja California
------	---	---	---

The restructuring of the Mexican economy and its marks in the production process had a direct impact in the regional recomposition experienced by the 33 federative entities integrating the Mexican Territory. The axis of the reconstruction process was the liberalization of the Mexican economy that affected the production and consumption processes during the period being analyzed. In terms of production, there was an expansion of the export sector and changes in the composition and the dynamics of sectors oriented to the domestic market. Such processes produced a rearrangement of the sectorial structure in the different regions, changes in its dynamics and important modifications in the regional production pattern that the country had in the commencement of the period.

These changes have been studied from different angles, from the perspective of neoclassical convergence models (Esquivel, 2000); from the perspective of the impact that the economic policy had in the regions (Katz, 1998 and Godínez, 1999); from its territorial impact (Hiernaux, 1998) and in respect to its urban impact (Graizbord and Ruiz, 1999). Our work privileges the change in the economical model and in its territorial impact for the 1980-2005 period, a period that was characterized by changes in the rules of the game of the national economy, for a turbulent external and internal economic environment and by the multiplication of regional and local initiatives aimed at more competitive federative entities vis-à-vis the external sector.

In order to comply with the purposes of the research, we instrumented the analysis of the structural and temporary changes along the period by using the disaggregated GDP by region in nine sectors. With the purpose of the analysis the localization quotients were estimated on one hand, and the specialization and concentrations of Krugman, index for five-year periods, on the other, thus allowing to maintain the conditions of a transversal and longitudinal analysis. The applications and results obtained were studied and geographically represented in order to identify regional profiles and geographical patterns derived from the process.

The work identified the regional transformation experienced by Mexico with the application of the new model and made it possible to identify the structural changes experienced by its productive base in each one of the regions for the period we studied. The results are integrated in two sections: a) estimation and analysis of both the winning and losing regions in the restructuration process during the period, b) the structural changes experienced by each one of the regions and their articulation levels with the general process.

1241	REGIONAL DIFFERENCES IN INCOME DISTRIBUTION IN COLOMBIA	Leonardo Bonilla , lbonilme@banrep.gov.co	CEER -Banco de la Republica, Cartagena
------	---	--	--

This paper studies regional characteristics of household and personal income distribution in Colombia. Three objectives are proposed. First, I measure the importance of *interregional* differences among total inequality of income. Then I test whether income inequality have any spatial pattern. Finally, I evaluate the relationship between inequality and income levels. Evidence tends to support significant differences in inequality among departments and major cities. Intermediate income level departments and cities are better off in terms of income distribution, while richest regions present consistently higher inequality measures.

1242	A CHARACTERIZATION OF REGIONAL DISPARITIES IN ARGENTINA (1986-2006)	Beatriz Alvarez, bealvarez@hotmail.com	Universidad Nacional de La Plata - Argentina
------	---	---	--

There is a generalized consensus that in a fair society attributes such as effort, and not circumstances, should be rewarded. This paper focuses on the geographic location aspect of the many attributes that can generate an unfair society that rewards circumstances instead of effort or innate ability.

Income inequality changed differently in different regions in Argentina in the last 20 years. This fact can be reflecting different opportunities faced by people who were born in different regions. This study tries to characterize the evolution of regional disparities in incomes in Argentina. Data from the EPH (Encuesta Permanente de Hogares) household survey are used from 1986 to 2006. A variant of the micro-econometric decomposition methodology proposed in Bourguignon et al. (1998) is applied.

First, the paper reports information on inequality in incomes in every region of Argentina since the beginning of the 80's. Although the core of the statistics is on household income inequality, the study also presents information of inequality in the distribution of earnings, hourly wages, hours worked, employment, unemployment, child labor, non-labor income, education, literacy, school enrollment, household size and housing. In addition, results on aggregate welfare are reported, as well as other dimensions of social justice, beyond inequality: polarization, mobility and poverty. This first part of the paper provides evidence of different kinds of behavior followed by the different regions in relation to inequality.

Then, results from microdecompositions are reported at country and regional levels. In the country level, the study tries to assess the relevance of regional returns among the different factors that affected inequality in the period 1986-2006 in Argentina. At the regional level, the evolution of the determinants' relative importance in every region is characterized and comparisons among regions in different times of the analyzed period are reported. Changes in returns to education and experience, in the gender wage gap, in returns by region and by economic sector, in overall prices and in unobservable factors, as well as of changes in hours of work and in labor force participation, and the transformation of the educational structure of the population were all analyzed as determinants.

This study aims to be useful for policy making in leveling out the playing field. By providing the causes of regional disparities, it is expected that policy makers can effectively apply policies directed to provide equality of opportunities.

1311	WELL-BEING AT THE SUB-CITY LEVEL: THE BUENOS AIRES NEIGHBORHOOD QUALITY OF LIFE SURVEY	Andrés Ham, ham.andres@gmail.com	Universidad Nacional de La Plata - Argentina
		Guillermo Cruces, gcruces@gmail.com	Universidad Nacional de La Plata - Argentina
		Martín Tetaz, martintetaz@yahoo.com.ar	Universidad Nacional de La Plata - Argentina

The purpose of this study is to provide indicators of quality of life for urban neighborhoods and their determinants in the Buenos Aires Metropolitan Area (AMBA). While disparities in other cities in Latin America may be attributed to geographical characteristics, the AMBA spatial configuration stems mostly from historic, political and economic factors. These characteristics make the Buenos Aires Metropolitan Area an interesting case study for the interaction between urban public policy and quality of life. Most previous studies in this line suffer from informational availability. This paper addresses the challenge of providing sub-city specific indicators by presenting the Neighborhood Quality of Life Survey (NQLS), a survey which was designed to collect information on a wide range of subjects related to the respondent's neighborhood, her satisfaction with life, and household and dwelling characteristics. The challenge of studying quality of life is tackled by analyzing and comparing quality of life indices derived from two alternative methodologies, the hedonic and life satisfaction approach. The NQLS was designed as a two step data collection process, comprising a household survey and a geographical module with objective indicators collected at the street level. The data collection effort was conceived as a pilot to be applied only to four selected neighborhoods, with the advantage of being able to apply a longer household questionnaire and collect more infrastructure data than what

would have been the case in a larger study. The data collected include individual characteristics, neighborhood amenities and attributes, as well as subjective assessments of domains specific to each neighborhood. These variables are complemented by geo-referenced objective data on local infrastructure for each surveyed block. In general, the results by neighborhood indicate the presence of two distinct sets of areas: a better-off area, where the rent is higher and residents have higher incomes, higher education levels and higher degrees of satisfaction with their lives and their neighborhoods, and two worseoff areas with lower levels of all these indicators. The hedonic approach stems from Blomquist's (2005) methodology and uses both objective and subjective characteristics to derive an index of living standards for each neighborhood. The results for the hedonic approach highlight the importance of objective and subjective assessments in inferring QoL, and offer a consistent ranking of each neighborhood into the two areas mentioned beforehand. The life satisfaction approach is an original extension of the methodology presented by van Praag and Ferrer-i-Carbonell (2008) since we model simultaneously the relationships between income and general life satisfaction and between life satisfaction and neighborhood quality of life. The results for this approach indicate the presence of a significant and robust relationship between satisfaction with one's neighborhood and satisfaction with one's life, capturing unaccounted sub-city differences using both objective and subjective data. The correlations between indices based on both methodologies are all positive and in the 0.153-0.248 range, indicating that the two methodologies are, at least partially, accounting for some common underlying level of quality of life at the sub-city level. In conclusion, the two approaches suggest an important role for urban public policy making in improving quality of life at the sub-city level.

1312	MODELLING QUALITY OF LIFE AND POPULATION GROWTH USING SIMULTANEOUS EQUATION MODELS. THE CASE OF THE BARCELONA METROPOLITAN AREA	Alessandra Faggian, A.Faggian@soton.ac.uk	University of Southampton - UK
		Vicente Royuela , vroyuela@ub.edu	Universitat de Barcelona

In this work we look at changes in the intra-metropolitan distribution of population. We use the classical determinants of urban growth to test which ones are more important within a metropolitan area. These determinants are: amenities and disamenities, which are considered as constituents of the more global concept of quality of life; the supply-oriented dynamic approach; and the city network paradigm. In particular we focus our paper on the role of quality of life variables in urban growth. In this sense, as we expect a potential endogeneity between quality of life and urban size (growth), we use a simultaneous equation model. We also expect a spatial relationship between the considered variables. Thus, we estimate our simultaneous equation model empirically using several alternatives, including spatial econometrics. Our exercise is developed in a local dynamic framework, the Metropolitan Area of the city of Barcelona (Spain), in the period 1991-2004.

1313	QUALITY OF LIFE IN URBAN NEIGHBORHOODS IN COLOMBIA: THE CASES OF BOGOTÁ AND MEDELLÍN	Carlos Medina, cmedindu@banrep.gov.co	Banco de la República
		Jairo Núñez, jnunez@cable.net.co	Centro Nacional de Consultoría
		Leonardo Morales, zurito75@gmail.com	Banco de la República

We use data from Bogotá and Medellín to describe key quality of life indicators of each city and illustrate their spatial segregation at the census sector level. We present evidence that the main two Colombian cities are highly spatially segregated. Household are spatially segregated according to their education levels and access to education, coverage of public services, households headed by women and key demographic variables like their levels of adolescent pregnancy. Social phenomena like crime, measured by the homicide rates at the census sector level, present as well clusters of higher incidence in these cities. Not surprisingly, our estimated quality of life indexes resemble the mentioned

segregation patterns in each city. We present evidence that the spatial agglomeration is statistically significant for each of the variables enumerated.

We estimate hedonic models of house values and life satisfaction for Bogotá and Medellín and find that the importance of the average level of education at the census sector level to determine house prices is striking. We also compare hedonic models for Bogotá and Medellín. Bogotá is better endowed than Medellín in the variables included in the analysis, in particular, it has higher education levels, and additionally, education is more equally distributed within census sectors. Bogotá has also better access to gas, and has in general houses with better conditions.

The hedonic models based on house values and life satisfaction approaches used in this article lead to similar conclusions in the aggregate when comparing their implied quality of life indexes. Although each approach allows us to determine its specific determinants, and these are not always the same, implied by their aggregated indexes suggest that these factors are just different faces of the same story.

From a policy perspective, the evidence suggests that redesigning the current socioeconomic stratification system in a way that still allows reaching the poorest while preventing segregation to deepen, might be the most important challenge to face in order to improve quality of life in main Colombian cities.

1321	AGGLOMERATION, INDUSTRIAL LINKAGES AND CHANGES IN INDUSTRY LOCATION IN MEXICO	Jorge Eduardo Mendoza Cota, <a href="mailto:jmendoz@mail.sdsu.edu">jmendoz@mail.sdsu.edu</a>	San Diego State University
------	---	--	----------------------------

The Mexican economy experienced a geographical dispersion of the manufacturing sector localization that favored the northern border region and the states surrounding Mexico City during the period 1980-2003. The objective of this paper was to develop a generalized method of moment econometric model to estimate the influence of manufacturing agglomeration, inter-industrial links and distance in the location decisions of the manufacturing firms. The results showed evidence that industrial dispersion has had a negative impact in localization of manufacturing firms, weakening the inter-industrial links and the economies of scale in Mexico.

1322	STRUCTURAL INTERDEPENDENCE AMONG COLOMBIAN DEPARTMENTS	Eduardo A. Haddad, <a href="mailto:ehaddad@usp.br">ehaddad@usp.br</a>	University of São Paulo
		Fernando S. Perobelli, <a href="mailto:fernando.perobelli@ufjf.edu.br">fernando.perobelli@ufjf.edu.br</a>	Federal University of Juiz de Fora, Brazil
		Geoffrey. J. D. Hewings, <a href="mailto:hewings@uiuc.edu">hewings@uiuc.edu</a>	Regional Economics Applications Laboratory, UIUC, USA
		Jaime Bonet, <a href="mailto:jaimebonet@yahoo.com">jaimebonet@yahoo.com</a>	Interamerican Development Bank

This paper advances on the analysis of the structural interdependence among Colombian departments. The results show that Bogotá has a large influence in the other regional economies through its purchasing power. Additionally, it can be observed a center-periphery pattern in the spatial concentration of the effects of the hypothetical extraction of any territory. From a policy point of view, the main findings reaffirm the role played by Bogotá in the polarization process observed in the regional economies in Colombia in the last years. Any policy action oriented to reduce these regional disparities should take into account that, given the structural interdependence among Colombian departments, new investment in the lagged regions would flow through Bogotá and the major regional economies.

1323	THE TRANSPORT SYSTEM AS DETERMINANT OF PATTERNS OF LINKAGES AND MULTIPLIERS: A MULTI-REGIONAL INPUT-OUTPUT MODEL FOR SÃO PAULO'S ROADS	Fernando Sakon, <a href="mailto:fsakon@gmail.com">fsakon@gmail.com</a>	University of São Paulo
------	--	--	-------------------------

The classical hypothesis of Weber-Moses location theory is that firms will maximize its profits by maximizing their revenues while reducing costs. There are several determinants of production, its growth and development. The infrastructure and especially the transport system becomes determinants of economic development, because it affects the location of production, the investments, the combination of production factors, the flow of people and goods, among others. This paper aims to show how the 7 main roads of the Brazilian state of São Paulo (Rio-Santos, Fernão-Dias, Anhanguera-Bandeirantes, Marechal Rondon, Raposo Tavares and Régis Bittencourt) relate to the metropolitan region of São Paulo and other Brazilian macro-regions (North, Northeast, Midwest, Rest of Southeast and South), influencing the national and regional productive structure under a multi-regional input-output system for 13 regions and 20 industries which intends to examine the multipliers effects in production, income and employment.

1331	ARE MEXICAN STATES AND UNITED STATES BUSINESS CYCLES SYNCHRONISED? EVIDENCE FROM MANUFACTURING PRODUCTION	Jeanett Campos Chávez, jeanettcach7@hotmail.com	Universidad Autónoma del Estado de México
		Pablo Mejía-Reyes, pmejia@yahoo.co.uk	Universidad Autónoma del Estado de México

Since regional business cycles can differ from the national ones and respond differently to external shocks, this paper analyses the degree of synchronisation between the Mexican states and the US business cycles by using a growth cycles approach for the period 1993-2007. Yet, since the 1995 recession in Mexico seems to be essentially idiosyncratic, the results for the period 1997-2007 are discussed in more detail in the paper. The business cycle indicators are obtained from seasonally-adjusted monthly manufacturing production indexes given that several papers have reported a higher degree of synchronisation for this output measure and due to data availability. The robustness of our results is evaluated by using three different de-trending methods, namely the filters introduced by Hodrick and Prescott (1998) and Christiano and Fitzgerald (1999) and the annual growth rate. Our findings confirm that the Mexican aggregate cycle is highly synchronised to the US business cycle. However, although specific Mexican state cycles are pro-cyclical with respect to the US business cycle, their synchronisation is very heterogeneous among them. In particular, that synchronisation is strong and robust only for the states of Baja California, Distrito Federal, Jalisco and Nuevo León and at least moderate for the State of Mexico and Querétaro. Notice that the total share of these states in the national manufacturing productions lies above three quarters, which may explain the high synchronisation documented for the national cycle. In turn, the synchronisation is moderate and robust for another four states, Aguascalientes, Coahuila, Puebla and San Luis Potosí. In line with the international literature, these results may be explained by international linkages of state manufacturing production associated to ‘maquila’ production, especially in the northern states, and international trade carried out by multinational firms, mainly by traditionally industrialised states. One general implication of our results refers to the need of analysing the nature of specific cycles given that they can differ from the aggregate one.

1332	EVIDENCE ABOUT CONVERGENCE AND SYNCHRONIZATION BETWEEN MEXICO AND UNITED STATES: A REGIONAL APPROACH	José Francisco Pérez de la Torre, delatorrefrancisco@gmail.com	FES Acatlán, UNAM
------	--	---	----------------------

In recent decades, Mexico has opened its borders to trade, to a greater extent in 1985 to enter the GATT (now WTO) and in 1994 when the NAFTA was enacted. This has resulted in new economic phenomena for Mexico in connection with its main trading partner, the United States, as the synchronization of business cycles (Castillo et al: 2004, Torres and Vela: 2002, Cuevas et al: 2003, Herrera: 2003, and Chiquiar Ramos-Francia: 2004, among others) and processes of economic convergence. The aim of this paper is to demonstrate the synchronization and conditional convergence between the states of Mexico and the economic performance of the United States, based on panel data, cointegrated panel data (Baltagi: 2005) and spatial econometrics techniques (Arbia: 2006). The results

suggest that the Mexican states that are convergence and synchronization with the U.S., have a strong commercial relationship with this. The proposal of this article is to lay the foundation for analyzing the production and trade structures of the Mexican states and include in the analysis states of the United States, for purposes of design of regional policy.

1333	INDUSTRIALIZATION AND GROWTH: THRESHOLD EFFECTS OF TECHNOLOGICAL INTEGRATION	Carlos Humberto Ortiz, ortizc@univalle.edu.co	Universidad del Valle
		Erika Raquel Badillo, erikabad84@hotmail.com	Universidad del Valle
		Javier Andrés Castro, jacastro@univalle.edu.co	Universidad del Valle

Countries enjoy the benefits of industrialization in economic growth after surpassing a certain threshold of technological integration in the manufacturing sector. This feature of development is consistent with the observed gaps in long-run growth rates between rich and poor economies.

1341	DEVELOPMENT OF A MODEL TO MONITOR THE IMPACT OF THE ADOPTION OF COMMON CODE FOR THE COFFEE COMMUNITY (4C) ON THE SUSTAINABILITY OF THE COFFEE PRODUCTIVE CHAIN IN THE MAIN PRODUCING COUNTRIES	Flavia Bliska, bliska@iac.sp.gov.br	Instituto Agronômico, IAC
------	--	-------------------------------------	---------------------------

The growing consumption of agricultural products known as “sustainables”, mainly in developed countries, is considered an alternative to reduce the instability of agricultural markets and therefore to increase the economic, social and environmental values of their production. In this context, some initiatives related to sustainable coffee production have arisen in the main coffee producing countries, such as the certification of sustainable coffees and the Common Code for the Coffee Community (4C). The Common Code was created with the purpose of increasing the commerce of coffee produced on a sustainable basis so as to promote regional development in the long term. However, there is a growing concern about the impacts of actually adopting this code of conduct on the sustainability of the coffee production chain throughout the world over the time, especially in respect to impacts on rural workers, small producers and other small players in the chain, with less representation in the 4C. Due this concern, it was developed a model for monitoring the impacts of adopting the 4C, especially – though not exclusively – on rural workers and small players of the productive chain, vis-à-vis the three sustainability dimensions used in 4C: environmental, social and economic. The developed model involves as few indicators as possible, and can be applied quickly and effectively without loss of important information, in order to analyse, over the time, the behaviour of the main components of the three sustainability dimensions. The project’s strategy is to gather qualitative and quantitative information on the sustainability of the coffee produced and its impacts on man, the environment and the management of coffee plantations. In accordance with those aims, the monitoring model was developed on the basis of diagnoses, Delphi technique, and field tests conducted initially in three countries – Brazil, Uganda and Vietnam, from December 2007 to April 2008. These countries represent three different types of social and labour relationships, and are highly representative of the total volume of coffee produced worldwide.

Delphi technique was used to identify and rank the main sustainability indicators. This technique allows a qualitative approach based on specialists’ opinions obtained from a structured questionnaire. The specialists were represented by players in the chain of coffee production, producers’ representatives, workers, industries, exporters, certifiers, scientific researchers, agricultural extensionists and other institutional and organizational specialists related to this chain of production in Brazil, Uganda and Vietnam. Delphi questionnaire was also applied inside the 4C members – Delphi group methodology. Interviews with coffee producers, collectors, researchers, consultants and other stakeholders were important to analyse coffee production systems and their relations with 4C in those countries. Results of Delphi

support the fieldwork observations, and the selection of the sustainability indicators. Were selected three economy indicators (farm management, economic empowerment, and income/profitability), four social (health and safety, education/child labour, and social empowerment) and three environment (natural resources, land use, and pollution). In the future, this monitoring system can be applied in coffee-producing countries, such as Brazil, Vietnam, Colombia, Indonesia, Peru, Mexico and Guatemala. First results are expected by the end of 2009.

1342	ECONOMIC DEVELOPMENT, THE ENVIRONMENT AND PUBLIC POLICIES IN THE BRAZILIAN AMAZON DURING THE PERIOD OF GLOBALIZATION	José Nilo de Oliveira Júnior , josenilo@ufpa.br.	Universidade Federal do Pará
		Paul John Cooney , pcooney@ufpa.br	Universidade Federal do Pará
		Wesley Pereira de Oliveira , wesleypo@ufpa.br.	Universidade Federal do Pará

As a result of the development strategies pursued in the Amazon region over several decades combined with the recent period of globalization, there have been significant environmental impacts and consequences; the most notable being the accelerated deforestation of the Amazon. This paper aims to present an overall assessment of three main aspects for the Amazon region: (1) the trajectory of economic processes, (2) government policies relating to both the environment and economic processes, and (3) the resulting environmental impacts. Given the fact that government policies are the net result of varied and often conflicting interests, whether it be transnational corporations (TNCs), non-governmental organizations (ONGs), regional developers, or civil society, a number of policies or government efforts will often be contradictory. In addition to analyzing the economic and environmental processes and public policies, it is our intention to try and identify the main actors, beneficiaries and losers in the context of the development of the Amazon over the last twenty years. It is thus our hope to shed light upon the seeming intractable problem of discerning which path of sustainable development will be most fruitful for the future of the Amazon.

1343	THE ABSENCE OF THE NATIONAL AND INTERNATIONAL ENVIRONMENTAL RESPONSIBILITY IN THE PRODUCTIVE CHAINS	Jose Stalin Rojas Amaya, josestalinrojas@gmail.com	Universidad Nacional de Colombia
		Olmo Alfredo Chiquillo Barragán, oachiquillob@unal.edu.co	Universidad Nacional de Colombia

This paper seeks to present the displacement of a chain of production from developed countries to underdeveloped countries because of the imposition of environmental legislation demands that does not have the principle of international responsibility. The leather-tanning-manufacturing chain has shifted from European countries toward countries like Colombia in the past 10 years. The movement to found a "clean process" in Europe has targeted to a "dirty process" in underdeveloped countries. Among the causes of the above displacement one could find the application of rules and techniques for clean production and the implementation of better environmental regulations. The paper intends to propose the principle of international environmental responsibility, through the case of Villapinzón (a small village of Cundinamarca – province of Colombia).

In Villapinzón, whose main economic activity is tannery, based the competitive advantage in its knowledge of such process; but its disadvantage in the pollution of the Bogotá River by the dumping to it of chromium and other pollutants.

The environmental authority while enforcing the law without institutional coordination is causing the disappearance of this economic activity. Different institutions apply the law to producers in a compartmentalized and not integrated nor synchronized. Each entity applies the principle of Dura Lex, Sed Lex (the law is hard, but it's the law), inducing them to comply with the law and perish trying to

economically fulfill them. Under the slogan "We do not sell water, but clean products", leather producers are asking for harmonization of legislation to promote trade with international environmental standards. At the same time agencies start to responsible for enforcing the law in applying the it in an orderly manner. This is the principle of environmental responsibility. The law met the parties but each one tries that the other party moves forward.

The principle of international environmental responsibility claims that the producers of underdeveloped countries improve their production processes by applying principles of cleaner production but the developed countries only import and buy products that are clean but socially responsible products. The producers of Villapinzón can produce in a clean way if the environmental entities not only apply the principle of "dura lex, sed lex" and change the principle of "lex hard, sine qua non intergra lex". The environmental law is applied harshly as long as the law provides options trading

The implementation of international agreements and protocols should include a verification mechanism of joint responsibilities that the state is institutionally synchronized.

The Villapinzon case explains the disappearance of a regional economic activity due to the implementation of a national and international environmental law applied unilaterally that is not articulated among institutions.

1411	BACKGROUNDS OF THE INDUSTRIALIZATION IN MEXICO CITY AND ITS INFLUENTIAL AREAS	Javier Lapa Guzmán, timito26@hotmail.com	Universidad Nacional Autónoma de Mexico
		Miriam Román Gutiérrez, miriam_carter@hotmail.com	Universidad Nacional Autónoma de Mexico

This paper emerge from the necessity to explain the Mexican economic situation and its influential area, that's why, the importance to know the evolution that the area has suffer, which represents the principal economic motor of the country.

The empirical evidence in this paper shows a clear process of deindustrialization since 1930 in Mexico city, when the city starts a quick process of industrialization. By 1970 the city has become into a real economic centralization. What it notably change along the time, because in 1988 represents 29%, in other words, the importance of the national industry in Mexico city decrease in more than 20% in the last 30 years, data that make us think in the causes and consequences of this phenomenon, not just for the city rather for the whole country, because it refers to the major impact of the GDP geographic zone, furthermore counting with the major population.

This paper constitutes the historic section of a big project, where we tried to study, the harmful effects that the deindustrialization has experience in this region, for this it' necessary to know the course of this process, because only in this way it's possible to understand the nature of this change in the economic activities in the city, in order to gave solutions for specific issues.

Because of that, this paper is a data compilation that form one complete historical description of the industrial life of the city throughout XX century, considering the participation of the main delegations of the federal district as well as the most important municipalities of the state of Mexico, beginning with the analysis of the five stages of development which crossed the country and affect positively the industrial scope of the city, and its levels of contribution to the national GDP, that of the same form that participation in the industrial activity of the country, has gone in frank diminution, in contrast to happened to the sector of the services that have gone in constant increase since 1960.

1412	TECAMAC: FROM EXPANDED PERIPHERY TO BICENTENNIAL CITY?	Alfonso Rivas Cruces, arc@correo.azc.uam.mx	Universidad Autónoma Metropolitana, Mexico
------	--	--	--

The accelerated growth of urban housing complexes in the municipality of Tecamac shows how the construction of peripheral agglomerations impact over the urban area extension.

Intensive private housing production -sponsored by programs and policies that favors a capitalist market system financed by the Estate- has been systematically disregarded on its importance of being planned as strategic resource for the sustainable economic development of the territory.

Due to its size and population density, urban housing complexes are equivalent to the territorial conformation of a city, but they are designed as neighborhoods. Therefore, they bequest to inhabitants a variety of problems, ranging from the lack of commercial and urban services, to the lack of cultural and recreational centers; as well as imposing over households a long distance daily travel to their jobs. Under such context, last year Tecamac was chosen to become a bicentennial city, as part of a regional development initiative by the government of the State of Mexico. This means that Tecamac is thought to become a self-sufficient city, able to integrate “housing districts” made of productive activities, urban facilities and services, along with other land uses. A city that will provide, as well, road corridors and transport systems, in order to grant to inhabitants the appropriate wellbeing and life quality conditions.

This article wants to do a report on the state of affairs that an intensive private housing production imposes over the city and its population, while away from a sustainable urban development vision. To point out, too, how development regulations are not entitled to add a sustainable self sufficiency to the city. And, finally, to stress how they rather diminish and exacerbate its urban viability.

Key words: Housing district, urban housing complex, self-sufficient city, and sustainable urban development.

1413	CANADIAN URBAN HIERARCHY 1971-2001	Ms Aurélie LALANNE, lalanne_aurelie@hotmail.com	University of Bordeaux (PhD student)
------	------------------------------------	--	--------------------------------------

This paper provides a description of the Canadian urban hierarchy between 1971 and 2001 allowing us to raise several issues. The urban hierarchy is often defined according to two properties: statistical stability, which refers to Zipf’s law and spatial organization stability which refers to central places theory. Because of the internationalization and globalization process, scientists’ community watches closely the evolution and the composition of the city size distribution fearing a polarisation between big cities and small cities which don’t have ability to be connected with the rest of the world (Julien 1995; Buisson and Rousier 1998; Lacour and Puissant 1999). The statistical stability could be disturbed especially a system such as Canada. Actually, Canada has at least two specificities which lead us to think that it is a special case. Canada is an young urban system more sensitive than others to exogenous shocks such as globalization and internationalization. Canada is not a mature system and we could imagine that its evolution is not fixed yet. Its growing international opening offers an interesting framework. Canada is an opened country. The United States and Canada are the world’s largest trading partners with important quantities of people and goods flowing across border each year. Hence we can’t consider that this country offers a conformed background for this pattern.

This paper deals with the growth of employments in Canadian cities greater than 10.000 inhabitants between 1971 et 2001. The purpose of this paper is to examine the evolution of the distribution in a such moving context (polarization or stability?). Further more, the random growth theory of Gibrat provides the most plausible explanations about urban hierarchy’s stability. We would like to shed the light on this theory, on its assumptions and on its consequences in order to take a stand on this theory.

The paper is organized in three parts. Part one is devoted to the literature and stylized facts. Part two presents the database and the empirical analysis of the Canadian urban system. We raise questions about the Canadian urban system and its relevancy judging from the low-values of the Zipf coefficient. We will see that North America (that is to say Canada plus the United States) could be more relevant for the definition of an urban system. We also provide a description of the distribution and the intra-distribution dynamics thanks to Markov chain techniques. Part three examine the conclusions of the random growth theory in order to take a stand on this theory.

1421	DISTANCES FROM URBAN PRODUCTION EXTERNALITIES AND CONSUMER AMENITIES: MAPPING THE ECONOMICS OF REMOTENESS	Dan S. Rickman, _	Oklahoma State University
		Kamar Ali, _	University of Saskatchewan
		M. Rose Olfert, _	University of Saskatchewan

	Mark D. Partridge, partridge.27@osu.edu	Ohio State University
--	--	-----------------------

Despite technological advances in communications and transportation technology, remoteness was increasingly associated with relatively poorer economic performance in the United States during the 1990s. As an array of household and firm location decisions responding to economic incentives underlie this outcome, explanations commonly offered include the rise of consumer cities and increased urban production externalities such as knowledge spillovers. Using a hedonic pricing approach, this paper assesses the relative importance of household amenities and production externalities in explaining growth in wages and land rents during the 1990s across the U.S. urban hierarchy. In general we find that productivity disadvantages increase with remoteness. Instead of consumer city effects, however, we find that remoteness is increasingly attractive to households. In decomposing these effects on wage growth differentials, we find productivity disadvantages for more remote nonmetropolitan and small metropolitan counties as the dominant force. Yet, for large metropolitan counties increased household amenity attractiveness of remoteness from even larger metropolitan areas contributed the most to relatively weaker wage growth.

1422	THE INDUSTRIAL CONCENTRATION EFFECT CONCERN ENVIRONMENTAL INNOVATION: THE CASE OF POLO INDUSTRIAL DE MANAUS (BRAZIL)	José Nilo de Oliveira Júnior , josenilo@ufpa.br.	Universidade Federal do Pará
		Marcelo Bentes Diniz , mbdiniz2007@hotmail.com	Universidade Federal do Pará
		Márcia Jucá Teixeira Diniz ,	Universidade Federal do Pará

This article analyzes the firms at Pólo Industrial de Manaus – PIM (Brazil) address in 13 (thirteen) industrial sectors classified as polluters and not-polluters agents in agreement literature (TORRES, 1993; SEROA OF MOTA, 1996; LUSTOSA & YOUNG, 2001), in the period from 2000 to 2006. The data used for this research include both primary and secondary sources. The secondary data, obtained in conjunction with the Supervision Free Trade Zone in Manaus – SUFRAMA refer to variables related to the economic performance of the firms, operating in the PIM. The primary data was obtained through questionnaires applied to the firms concern innovation, in special, environmental innovation. The postulate adopted in the research derives from the new standard of competition in the 90's (FERRAZ et al, 1995), that forced environmental concerns to be introduced inside competitive strategies of the firms. In this way, enterprise strategies includes a set of initial investments and consequent costs, many times, onerous to depend on the sector that is inserted the firm. The initial investments with high costs can function as barriers to the entrance of new firms in the same market and to induce the enlargement of the production scale as form to compensate them. At this point gains relief the problem of the research: introduction of innovations related to the environment, have effect to the measure of concentration for each industry operating in the PIM. A descriptive analysis was then conducted employing both sets of data, followed by an econometric model, which used simultaenous equations. The results obtained confirm the main hypothesis of the study, which is that innovations, especially those related to the environment tend to have a significant and positive effect on the concentration ratio. In addition, it was established that among the firms considered polluters according to the literature, were those which introduced more environmentally related innovations.

1423	URBAN DINAMYC EVALUATION FOR THE CITY OF ENVIGADO	Alejandro Betancourt A, abetan16@eafit.edu.co	EAFIT University
		Jose Luis Franco, jfranco7@eafit.edu.co	EAFIT University
		Luis Antonio Quintero, lquinte3@eafit.edu.co	EAFIT University

The growth of both the population and the supply of housing have become delicate worldwide problems in the last years especially in developing countries, due to the importance of the concept of

population in urban studies. For this reason, new tools have been developed to help the government with timely decision making. In our case we developed a model utilizing System Dynamics where the evolution of population in the municipality of Envigado is accurately portrayed in order to monitor and project its growth according to the patterns that have presented themselves in the last years.

1431	FACING CHALLENGES OF FREE TRADE AGREEMENTS THROUGH DEPLOYMENT OF STRATEGIC POLICIES TOWARDS REGIONAL INTEGRATION, USING INTELLIGENT INFRASTRUCTURE	Klaus Banse, k.banse@its-colombia.org	ITS Colombia
------	--	---------------------------------------	-----------------

Nations around the globe are integrating on different levels to stimulate and facilitate interchange of their markets for more equilibrated import and export relations. Some of the parameters are predefined by geographical location of the countries and their partners, others by the level of economic development.

One of the major concerns is meeting more powerful or more developed counterparts representing different interests and starting points in the early negotiation phases. The importance of parallel political and development action often is taken into account too late, when agreements are already signed and the implementation schedule is putting pressure on both parts.

The present paper shows how to prepare countries with strong needs of regional integration and development by pairing infrastructure, economic and communications development, how the creation of “intelligent” infrastructure strengthens the role of the national government on its path towards reaching its development policy goals and how it allows steering and controlling, rather than having uncontrolled and temporary development poles causing migration to the big cities.

1432	SPATIAL ASPECTS OF TRADE LIBERALIZATION IN COLOMBIA: A GENERAL EQUILIBRIUM APPROACH	Eduardo A. Haddad, ehaddad@usp.br	University of São Paulo
		Fernando S. Perobelli, fernando.perobelli@ufff.edu.br	Federal University of Juiz de Fora, Brazil
		Geoffrey. J. D. Hewings, hewings@uiuc.edu	Regional Economics Applications Laboratory,
		Jaime Bonet, jaimebonet@yahoo.com	Interamerican Development Bank

This paper offers some preliminary steps in the marriage of some of the theoretical foundations of the new economic geography with spatial computable general equilibrium models. Modeling the spatial economy of Colombia using the traditional assumptions of CGE models makes little sense when one territorial unit, Bogotá, accounts for over one fourth of GDP and where transportation costs are high and accessibility low, compared to European or North American standards. Hence, handling market imperfections becomes imperative as does the need to address internal spatial issues from the perspective of Colombia’s increasing involvement with external markets. The paper builds on the CEER Model, a spatial CGE model of the Colombian economy; non-constant returns and non-iceberg transportation costs are introduced and some simulation exercises are carried out. The results confirm the asymmetric impacts that trade liberalization has on a spatial economy in which one region, Bogotá, is able to more fully exploit scale economies vis-à-vis the rest of Colombia. The analysis also reveals the importance of different hypotheses on factor mobility and the role of price effects to better understand the consequences of trade opening in a developing economy.

1433	THE EFFECT OF TRADE ON REGIONAL DISTRIBUTION IN MEXICO	Rafael Garduño-Rivera , rgardun2@illinois.edu	University of Illinois at Urbana-Champaign
------	--	--	--

Economists generally agree that trade has a positive effect on overall economic growth in a country. However, trade also affects the location of economic activity (Krugman, 1991). While overall, Mexico

has been expected to benefit from its lower labor costs, the physical proximity of its border regions implies northern Mexico has a geographic advantage in production for the U.S. market, and may benefit more than other regions from the North American Free Trade Agreement (NAFTA). That said, empirical evidence testing how NAFTA affected the north-south disparity has been mixed results (Aroca, Bosch, & Malo, 2005). This paper evaluates the distributional effects of NAFTA on economic growth throughout Mexico. Specifically, I ask whether NAFTA increased the concentration of economic activity in Mexico. Previous empirical studies of the effect of NAFTA in Mexico are limited by using state level data which masks the spatial distribution of economic activity and severely restricts the number of their observations. This paper offers the following contributions: First, it uses municipal panel data to break down the information and identify more clearly the relationship between trade and possible clusters of growth. The use of municipal data also provides more observations that could improve the precision of the estimated impact, since as the sample size grows the estimators converge in probability to the quantity being estimated. Second, it includes the latest economic census (2004) to observe if, after ten years of NAFTA, the economy has decentralized away from Mexico City to the border region. Third, by separating economic activity into traded and non-traded output, I can better identify the specific effect of NAFTA. I find evidence that NAFTA has increased economic activity in Mexico and that it has affected its distribution. Output per worker of regions near the border has grown more than those regions further from the United States after NAFTA, even when these border regions already had high levels of economic activity before NAFTA. Second, I find that large cities have a higher output per worker than other municipalities after NAFTA since cities grow faster than other regions. This growth is particularly high for cities in the north. Third, in municipalities, high literacy rates show a higher output per worker before and after NAFTA, but the effect is higher after NAFTA since regions with high literacy levels grow faster than others. Finally, the presence of maquiladoras in a municipality did not present a significant influence on the output per worker. This refutes the idea that regions with maquiladoras industries are growing faster than regions without them (Hornbeck, 2004).

1434	THE NORTH AMERICAN FREE TRADE AREA FULFILLED ITS PROMISE? AN ASSESSMENT AFTER 15 YEARS	Bernard L. Weinstein, bernard.weinstein@unt.edu	University of North Texas
------	--	--	---------------------------

Effective in 1994, the North American Free Trade Area (NAFTA) has substantially lowered tariffs and other trade and investment restrictions. Consequently, three-way trade has expanded exponentially as has inward and outward investment, except during periods of recession in the United States. Critics of NAFTA argue that jobs have been destroyed and wages suppressed in both Mexico and the U.S., but these claims do not hold up to careful scrutiny. To date, the NAFTA agreement can be considered a qualified success. But the global economic crisis of 2008-2009 will pose challenges for additional economic integration among the three countries.

1441	THE SPATIAL AGGLOMERATION OF EDUCATED PEOPLE IN COLOMBIA	Juan Tomas Sayago, juantomas.sayago@gmail.com	Universit degli studi di Pavia
------	--	--	--------------------------------

Colombia's educative system has grown in the last decades, and the access and coverage has reached higher levels but this development has been mainly in big-ger cities and because of it, we can see that there is an agglomeration of graduates in the tertiary education on these cities and the cities that are around them. The education is one of the pillars of development in the countries and this process can only be fulfilled with the presence of graduates in tertiary education in all the municipalities. The purpose of this article is to test this hypothesis of agglomeration and intend to see which factors that cause this phenomena, such as life quality, income effects and security. Empirical evidence are derived from real data obtained by DANE (Departamento Administrativo Nacional de Estadística) in the Census from 2005 and a violence variable constructed with IEPRI's (INSTITUTO DE ESTUDIOS POLITICOS Y RELACIONES INTERNACIONALES) information of political homicide. The understanding of this phenomena would be the only way to stop it and maybe create a different dynamic in the choice of these graduates of what city to work or even live.

1442	SPATIAL EFFECTS IN HEDONIC PRICE MODELS: A GIS-BASED ASSESSMENT	Juan Ignacio Zoloa, juanignaciozoloa@yahoo.com.ar	CEDLAS – UNLP
		Raúl Sánchez, ros@mail.utexas.edu	CEDLAS– UNLP – University of Texas at Austin

This paper studies how the real estate market works, more precisely how the hedonic price model applied to these markets behaves. In the real state market, there are spatial relationships that are not taken into account in the most commonly used econometrics models. According to Anselin (1988) there exist two types of spatial interaction. The first one is the spatial dependence, where a variable tends to assume similar values in geographically close units. Such spatial dependence is widely observed in real estate markets; expensive houses tend to be close to other expensive houses. The second one is spatial heterogeneity, which is related to the lack of stability over the space of the behavior or other relationships under study. More precisely, this implies that the functional forms and the parameters are not homogeneous and vary according to the location. In the traditional models, the spatial dependence is in the error term and violates the classical assumption of ordinary least squares (OLS) of no serial correlation between errors. If that correlation is ignored, the estimated parameters will be inefficient, the t & f statistics will be biased and the goodness of fit will be misleading. The application of spatial econometrics techniques correct the aforementioned bias. These techniques also allow to show and quantify the spatial interrelations that the data have on the geographical space.. The application of Geographical Weight Regression techniques makes it possible to explore the stability of the association between prices and variables over all the space. The dataset used in this paper contains prices and characteristics for 669 observations that were on sale in 2004. Each observation was georeferenced to compute the distance to different facilities. One of the most important results obtained was the reduction in the estimation errors of the spatial lag model in comparison with the OLS. The most important finding obtained with GWR techniques was that a large number of coefficients were not stationary. Representing local coefficients in maps allows us to find out that several variables have a bigger impact on expensive residential areas

1443	THE MAX-P-REGION PROBLEM	Juan C. Duque, jduquec1@eafit.edu.co	EAFIT
		Luc Anselin, luc.anselin@asu.edu	Arizona State University
		Sergio J. Rey, srey@asu.edu	Arizona State University

This paper introduces the exact formulation and heuristic solution of a new type of spatially constrained clustering called the max-p-region model. This model aggregates a finite number of geographical areas into the maximum number of mutually exclusive and exhaustive regions such that the areas within each resulting region are spatially connected, and the regional value of a predefined attribute must be greater than or equal to a minimum threshold value. Empirical evidence is provided using data of slumness in Accra (Ghana).

2111	ANALYSIS OF THE COMPETITIVENESS OF THE COLOMBIAN DEPARTMENTS FROM THE PERSPECTIVE OF TRADE THEORY AND NEW ECONOMIC GEOGRAPHY	Daniel Valderrama,	
		Héctor Mauricio Posada Duque, hmposada@economicas.udea.edu.co	Universidad de Antioquia
		Jorge Lotero Contreras, jlotero@agustinianos.udea.edu.co	Universidad de Antioquia

In this paper, we analyze the competitiveness concept and the competitiveness measurement using the old and New Trade Theory and the New Economic Geography. The analysis shows that the competitiveness has no sense when is applied to the goods market, while has sense (however, not in all situations) when is applied to the productive factors market. In order to establish a competitiveness ranking for the colombian departments we define and build four factors: agglomeration, infrastructure,

human capital and physical geography, using principal components analysis and hierarchical cluster analysis. The results shows, in line with previous and more complex studies, that: (i) the central departments attract more resources, and (ii) competitiveness have more sense at the interior of departments subgroups. The study also suggest that is not adequate to think in "general" competitiveness policies, and instead, is better to think in regional growth polices.

2112	ON COURNOT'S PROBLEM AND THE NEW ECONOMIC GEOGRAPHY	Ana M. B. Barufi,,	
		Eduardo A. Haddad, ehaddad@usp.br	University of São Paulo
		Jaime Bonet, jaimebonet@yahoo.com	Interamerican Development Bank
		Silvio M. A. Costa,	

In this paper we explore an alternative approach to bridge the gap between NEG theory and practice. We address Krugman's frustration with the preliminary efforts in the direction of developing ?computable geographical equilibrium? models. We depart from Haddad and Hewings (2005) modeling approach, which offers some preliminary steps in the marriage of some of the theoretical foundations of NEG with spatial CGE models. Even though we recognize that spatial CGE models are not without their limitations, we will argue that this approach should not be neglected as a potential modeling strategy to be pursued in order to reinforce policy relevance of NEG-based models. Its ability to handle increasing returns to scale and transportation costs in an integrated spatial economic system with explicit forward and backward linkages places spatial CGE models as strong candidates for bridging the gap between theory and practice.

The case study addressed in this paper is particularly interesting. We will consider reductions in transportation costs in the Colombian economy to look at its implications to spatial allocation of resources, using the CEER model. The results are shown to be in line with NEG models, reproducing empirical regularities evidenced from wage equation estimates elsewhere. Not only access to domestic markets and suppliers are affected by regional integration of domestic regions, but also access to external markets. Moreover, one important finding is that spatial hierarchy may play an important role to explain the resulting equilibrium distribution. The interplay of forces related to domestic and foreign markets may reveal a situation in which geography favors coastal areas. As transportation costs decline, the central region is positively affected; however, other regions with more privileged access to external markets may present an even better performance. Also in line with NEG results, we show that different levels of economies of scale in the core region are linked to different distributional impacts, for a given level of integration.

Weaker economies of scale favor the peripheral areas, resulting in a less concentrated distribution of activity. After checking the fit of our model to NEG models, we proceed for a thorough decomposition of the results, from a spatial perspective of free-ness of trade. We borrow from the field of influence literature the idea of inverse important coefficients in order to identify strategic transportation links in the context of the Colombian interregional system. Given the nature of Johansen-style CGE models, we can also expand the concept of measurement of the field of influence statistics in order to generate qualitative structures of influences based on different policy targets. Our results suggest a typology of regions based on the influence of forward and backward linkages. In other words, for some regions, accessibility to markets plays a major role to drive economic growth, while for others accessibility to suppliers is the main driver. Finally, there are also regions that equally benefit from forward and backward spatial linkages, and regions that are hampered by regional integration due to substitution effects. As will be seen, visualization techniques of such key transportation links provide a useful instrument for policy analysis.

2113	THE DYNAMICS OF SPATIAL AGGLOMERATION IN CHINA: AN EMPIRICAL ASSESSMENT	Ana Isabel Moreno-Monroy, A.I.Moreno.Monroy@rug.nl	University of Groningen
------	---	--	-------------------------

In this paper, I complement the application of New Economic Geography –NEG– models to explain wage disparities in China by estimating the Helpman Hason model, which focuses on the role of

consumer markets as an attraction force and housing prices as a dispersion force for economic agglomeration. Although at first the application of a model based on fully-fledged free market conditions seemed dubious for the case of China, where restrictions to labor mobility, controls on wages, prices and the housing market still exist, I argue that during the period 2000- 2005 there have been significant changes in China that have resulted in an increasing response of agents to market opportunities. More importantly, these responses are influencing the spatial distribution of economic activity. Although labor mobility restrictions are still in place, temporary rural-urban migration has greatly increased in the last years. Wages are more flexible due to the intense competition in the private and semi-private sectors, and the housing market is increasingly private. I estimate the structural parameters of the model for 2000 and 2005 using weighted non-linear least squares, and devote special attention to the multiple estimation problems of the Helpman-Hanson equation, such as the presence of fixed effects and reversed causality. The results are in line with what is been found in the literature. I find that the market potential is slightly lower for 2005 than for 2000, as a direct product of a higher value of the elasticity of substitution for the last year. I also find that the share of income spent on manufactures increases between the two periods, and that transport costs decrease. I show how these effects may cause dispersion or agglomeration of economic activity according to the original theoretical model. An application of income shock experiments on different economic centers across China shows that spatial externalities are not homogeneous across prefectures, so that income shocks may have different effects across the country, and that they depend on how proximate cities are. Finally, the results are corroborated by using an alternative version of the Helpman-Hanson equation that does not use housing services data nor assumes real wage equalization. I obtain estimates for the elasticity of substitution and the transport cost parameter qualitatively similar to those obtained with the Helpman-Hanson equation. Based on the results I argue that rural-urban migration and the size of existent agglomerations will increase in the near future, but with marked differences across regions. As China moves to a market economy, prices should better reflect the forces pulling for dispersion, which in a broader sense not only include housing and land prices, but also congestion, pollution and many other problems that come along with urbanization. What remains debatable is if the cost paid in a “suboptimal” distribution of cities, possibly caused by mobility restrictions, is larger than the benefits of a more spatially balanced growth.

2121	A COMPUTATIONALLY EFFICIENT FORMULATION FOR THE ALDSTADT AND GETIS AMOEBA ALGORITHM	Alejandro Betancourt A, abetan16@eafit.edu.co	EAFIT University
		H. Velasquez,	EAFIT University
		Jose Luis Franco, jfranco7@eafit.edu.co	EAFIT University
		Juan C. Duque, jduquec1@eafit.edu.co	EAFIT University

In this paper we present an efficiency improvement upon the AMOEBA procedure devised by Aldstadt and Getis (2006) that proposes a method that links an iterative procedure with a local spatial autocorrelation statistic in order to identify spatial clusters (ecotopes) of related spatial units. We offer an analysis on the computational complexity of the original AMOEBA and develop an alternative formulation that reduces computational time without losing optimality. Empirical evidence is provided using socio-demographic data in Accra (Ghana).

2122	ECONOMIC GROWTH IN THE MUNICIPALITIES IN RIO GRANDE DO SUL: A SPATIAL ANALYSIS FROM 1970 TO 2000	Izete Pengo Bagolin , Izete.bagolin@pucrs.br	Pontificia Universidade Católica do Rio Grande do Sul
		Matheus Lisboa , matheus.lisboa@gmail.com	Pontificia Universidade Católica do Rio Grande do Sul

The main aim of this work is to scrutinize the correlation between the localization and economic growth in the economic activity of the city councils in Rio Grande do Sul from 1970 to 2000. The paper follows the structure developed by Glaeser et al (1995) and used by Menezes (2006) in a Brazilian case. Our data set was built using the Brazilian census data and the conversion system, which has been created through a new methodology proposed by the Economy and Statistician Foundation of Rio Grande do Sul – FEE. The referred methodology reduces data problems caused by the process of municipality emancipation and allows the construction of time series with the original number of municipalities – 232 - existing in 1970 without any information loose. The results show that education and demographic variables are strongly correlated to economic growth. Additionally the municipalities which were based on factoring activities in 1970 and/or had low participation share in 1970 faced higher economic growth rate.

2123	VISUALIZING REGIONAL, HISTORICAL AND CULTURAL HERITAGE USING GIS AND MULTIDIMENSIONAL SCALING- THE CASE OF MINAS GERAIS /BRAZIL	Altino Caldeira,	Pontifical Catholic University of Minas Gerais
		Joao Francisco de Abreu, <a href="mailto:jofabreu@hotmail.com">jofabreu@hotmail.com</a>	Pontifical Catholic University of Minas Gerais

The elaboration of an updated Digital Atlas of the historic and cultural patrimony of Minas Gerais will allow the diverse sectors of the community to know the State's cultural heritage through a visual and interactive reading of the inventoried items, which will be presented on maps, photography, drawings and specific documents. Besides these aspects, one of the features of the Digital Atlas is its comprehensiveness, since it gathers knowledge from various fields such as Geography, History, Archeology, Sociology, Politics, Architecture and Arts, thus making its content richer in variety. More the 200 goods in 46 cities are analyzed using GIS and multidimensional scale.

2131	EFFICIENCY DETERMINANTS OF LOCAL GOVERNMENT SPENDING ON EDUCATION AND HEALTH: THE CASE OF CEARA.	Daniel A. Feitosa Lopes, <a href="mailto:danielfeitosa@ipece.ce.gov.br">danielfeitosa@ipece.ce.gov.br</a>	Institute for Research and Economic Strategy of Ceará
		Marcelo Ponte Barbosa, <a href="mailto:mponte@ipece.ce.gov.br">mponte@ipece.ce.gov.br</a>	Institute for Research and Economic Strategy of Ceará
		Marcos Costa Holanda, <a href="mailto:holanda@ipece.ce.gov.br">holanda@ipece.ce.gov.br</a>	Institute for Research and Economic Strategy of Ceará
		Nicolino Trompieri Neto, <a href="mailto:nicolino@ipece.ce.gov.br">nicolino@ipece.ce.gov.br</a>	Institute for Research and Economic Strategy of Ceará

The main objective of this study is to assess the quality of municipal spending of the State of Ceara in education and health. Using the non-parametric methodology data envelopment analysis, efficiency rates are estimated, considering indicators of input and product. To do so, a bias correction proposed by Simar and Wilson (1998) is applied and estimated in rates, generating robust rankings of efficiency. Then applies a regression model with censored dependent variable (Tobit) in order to examine the impact of certain variables on the estimated efficiency rates. The main contribution of this work is to examine the determinants of the quality of public spending at the municipal level differentiating between products (inputs) offered to the population and results (outputs) effectively achieved by the municipal administrations, from the regression analysis perspective.

2132	EVALUATION OF REGIONAL POLICIES. A MODEL ON THE MACROECONOMIC EFFECTS	Juan R. Cuadrado-Roura, <a href="mailto:jr.cuadrado@uah.es">jr.cuadrado@uah.es</a>	University of Alcala, Madrid
		Simon Sosvilla-Rivero,	Complutense University, Madrid

Regional policies, as well as all socio-economic policies, must be evaluated to know the effectiveness of the measures and funds employed and the results actually obtained compared to the proposed

objectives. In particular, the paper will be focused on the analysis of the macroeconomic effects of a regional policy using a model – the ‘Hermin’ – which give the possibility of considering contra-factual results of such effects in terms of GDP, employment, productivity and other variables. Firstly, the model and its main characteristics will be presented. Secondly, it will be applied to the case of the EU Regional Policy, taking the Spanish economy as a whole and the case of an individual region as case studies. Results will offer contra-factual figures along the period 1989-2006, as well as on the new scenario 2007-2013.

2133	PERSONAL AND REGIONAL REDISTRIBUTION THROUGH PUBLIC FINANCE. THE CASE OF PROVINCIAL GOVERNMENTS IN ARGENTINA	Alberto Porto, alberto@depeco.econo.unlp.edu.ar	Universidad Nacional de La Plata - Argentina
		Cecilia Peluffo,	Universidad Nacional de La Plata - Argentina
		Walter Alberto Cont, Walter@fiel.org.ar	Universidad Nacional de La Plata - Argentina

In a federal system, income distribution is affected by the decision of many (public) economic agents in at least two dimensions: personal and regional. Through public budgeting, and the interaction of expenditures and taxes, a subnational government typically affects the personal distribution of income, and also the regional distribution of income if the subnational budget is financed with national taxes, through revenue-sharing (coparticipation) regimes, because this regime redistributes tax revenues among provinces.

Most research in this field focuses on the impact of public budget on either personal or regional distribution of income. Very few papers integrate both effects. This paper studies the impact of provincial government budgets (which represent 50% of total public expenditures, and 60% of funds to finance them comes from revenue-sharing) on the distribution of income in Argentina using budget information for year 2004. We find that the progressiveness of subnational expenditures and taxes interact with the revenue-sharing regime, reinforcing progressivity in “net-receiving” provinces but creating a trade-off between progressivity and (negative) regional transfer in “net-financing” ones. In the latter provinces, however, the net effect of provincial budget is also progressive.

Even though this methodology is applied to provincial expenditures and taxes within a federal system, it can also be applied to national budgets.

2141	ANALYSIS OF SPATIAL CONVERGENCE OF AGRICULTURAL PRODUCTIVITY FOR THE MUNICIPALITIES OF THE AMAZON (1995-2005)	André Luiz Ferreira e Silva ,	Universidade Federal do Pará
		José Nilo de Oliveira Júnior , josenilo@ufpa.br.	Universidade Federal do Pará
		Marcelo Bentes Diniz , mbdiniz2007@hotmail.com	Universidade Federal do Pará
		Márcia Jucá Teixeira Diniz ,	Universidade Federal do Pará

This article aims to study if there is evidence of unconditional spatial convergence of agricultural productivity for temporary and permanent crops in the municipalities of the Amazon for the period of 1995-2005. Exploratory Analysis of Spatial Data (EASD), and also the  $\beta$ -convergence analysis were the tools employed for considering the interaction of spatial effects between municipalities. After taking into account the effect of spatial autocorrelation and spatial heterogeneity, the results indicated the existence of a convergence process for agricultural productivity for both types of crops. The  $\beta$ -convergence hypothesis was also confirmed, showing that a process of reduction of asymmetry exists with respect to the spatial distribution of the average productivity of these types of crops. The convergence speed was also calculated for the steady-state trajectory for the average productivity of both crops, where the rate of growth of average productivity of the temporary crops grew approximately 5,47% annually. In contrast, the speed of permanent farming was 3,87% annually. However, this result is corroborated by the influence of the spatial effect, identified in sub-regions

which are characterized by the formation of clusters, and with a positive spatial correlation: the main vector of determination of the rate of growth of the regional agricultural average productivity. Finally, the existence of spillover effects were confirmed only for average productivity of the temporary crops. It is worth noting that the most dynamics clusters were those that present the greatest potential of productivity spillover, especially for the state of Mato Grosso for both types of crops.

2142	LOCALIZATION OF NEWCOMERS IN MANUFACTURING AND SERVICES IN MEXICO: A SPATIAL ECONOMETRIC ANALYSIS FOR 2004	Gustavo Félix Verduzco, gfelix@cise.uadec.mx	Universidad Autónoma de Coahuila
		Miguel Ángel Quirarte Lugo,	Universidad Autónoma de Coahuila

In this paper we use economic census information about new economic activity on manufacturing and services industries established in 2004 at the 32 Mexican federative states. We combine these information with regional indicators about human capital endowment (alphabetization), wage level, local potential market size, and transport infrastructure (paved roads and railroads) and calibrate an econometric spatial model. We find positive evidence that these factors determinate localization. Also we find a negative relationship between states proximity and localization of manufacturing newcomers, therefore we conclude that there is a regional competition between Mexican states to attract investment for new manufacturing employment. On the contrary we do not find empirical evidence about competition between Mexican states to attract newcomers in services.

2143	MULTIPLE DIMENSIONS OF REGIONAL ECONOMIC GROWTH: THE BRAZILIAN CASE, 1991-2000	Guilherme Mendes Resende, G.Resende@lse.ac.uk	Instituto de Pesquisa Econômica Aplicada
------	--	--	--

This paper seeks to understand how and why the determinants of economic growth (including spatial spillovers) may manifest themselves differently at different spatial scales (municipalities, micro-regions, spatial clusters, and states) between 1991 and 2000. Usually, economic growth models (e.g. neoclassical and endogenous models) assume that similar rules apply at all spatial scales and empirical studies only test theoretical models using a single scale level. However, it is important to note that what is true at a given spatial scale might not be true at another.

The main question of this paper is: What is the role of spatial unit definition in internal income dynamics of Brazil? In other words, do the determinants of economic growth in Brazil vary with different levels of spatial aggregation of the observational units, as well as the intensity of spatial spillovers? This question seeks to understand the geography of the causal (structural) process underlying the economic growth at different scales. It means that the definition of each scale level could have a well-defined role in the economic growth process. A complementary approach is related to the “Modifiable Areal Unit Problem” (MAUP) and Ecological Fallacy Problem. These two problems stem from the fact that there is an aggregation problem which might prevent us from identifying the actual scale at which processes operate.

This paper suggests a general framework that allows dealing simultaneously with multiple spatial scales, spatial autocorrelation and model uncertainty. Indeed, the latter two issues have been treated in relative isolation, by focusing only on spatial autocorrelation or on model uncertainty, while multiple spatial scales analysis has been neglected by economic growth literature. The analysis reveals that if single regression is estimated at the different scales levels, the results change as scale level changes. However, the robustness test was able to identify variables that are simultaneously significant at different spatial scales: higher education and health capital and better local infra-structure are related to higher economic growth rates. Among other results, this paper identified that spatial spillovers are operating especially at finer scales (e.g. municipalities).

The result shows that externalities are confined to spatial cluster level since it was not detected spatial dependence at this level. It is worth noting that, at the spatial cluster level the estimated coefficients

denote a blend of individual and contextual effects as suggested by the Ecological Fallacy problem. These results suggest that public policies should be implemented at the spatial cluster level since municipalities within a spatial cluster region share similar characteristics (and problems) and the impact of a public policy may be amplified by the externality effects within each cluster. Furthermore, the analysis shows that a municipality located in a relatively poor neighbourhood will tend to have a lower income growth. Given the uneven distribution of per capita income across space in Brazil, this result suggests that some regions in Brazil are trapped in lower levels of income. Hence, public policies could focus on low income spatial clusters benefiting from the spatial spillovers within these clusters as well.

2144	THE IMPACT OF MIGRATION ON CHILEAN POPULATION SPATIAL CONCENTRATION	Francisco Rowe,	Universidad Catolica del Norte, Chile
		Patricio Aroca, paroca@ucn.cl	Universidad Catolica del Norte, Chile

The paper studies the impact of the Chilean interregional migration on the concentration around the center of the country. Using aggregate data and taking into account the spatial autocorrelation that is associated to origin and destination regions; a spatial model is tailored and estimated for Chilean data for periods 1987-1992 and 1997-2002. The results show that there is a significant spatial autocorrelation at the origin and destination region in the migration process. In addition, the results shows that ignoring the spatial autocorrelation in the estimation process will lead to an underestimation of the effects of the variables on the probability to migrate, this is especially important for the variable population at origin and destination region and its implication over the concentration process around the central regions. .

2221	BEYOND INCOME: CONVERGENCE IN LIVING STANDARDS. THE COLOMBIAN CASE	Edgard Moncayo, edgardmoncayo@yahoo.com	Universidad Central
------	--	--	---------------------

Following the international path, the convergence issue has become prominent in the Colombian economic growth literature, during the last two decades. Most of this research, however, has dealt mainly with the convergence in per capita income among regions and cities. In this paper I address the problem of convergence since the living standards perspective, as measured by a wide range of relevant variables namely water supply, sewage, electricity, life expectancy of birth and literacy. To this effect, various techniques are applied, including, aside from the conventional cross-regions regressions, others like Kernel density estimates and cluster analysis. I find strong evidence of convergence in most of the aspects of living standards mentioned above. This result is in line with the international trends and highlights an interesting dimension of the colombian development process. Finally some considerations are included about the impact of fiscal decentralization in the convergence of living standards found in the paper.

2222	CONVERGENCE IN THE CANADIAN PROVINCES: EVIDENCE USING UNEMPLOYMENT RATES	Firouz Fallahi,	University of Tabriz
		Gabriel Rodríguez, gabriel.rodriguez@bcpr.gob.pe	Central Bank of Peru

Quarterly time series data from Canada and the Canadian provinces for the period 1976:1-2005:3 are examined to determine if the unemployment rates in the Canadian provinces are converging to the national rate of unemployment. The paper checks for existence of stochastic convergence using recent unit root statistics, see Perron and Rodríguez (2003) and Rodríguez (2007); furthermore, it verifies for existence of Beta convergence using recently proposed methods by Vogelsang (1998), Perron and Yabu (2005,2006), and Bai and Perron (1998, 2003). Results from different unit root tests, without and with structural breaks, confirm that stochastic convergence exists in all provinces except British Columbia. Next, the existence of  $\beta$ -convergence is tested using different approaches to estimate the trend function.

The results show strong evidence that the deterministic convergence exists and the unemployment rates of the Canadian provinces are converging to the unemployment rate of Canada. This conclusion is stronger when multiple breaks are allowed in the trend function, that is, using the approach of Bai and Perron (1998, 2003).

2223	THE SOURCES OF SPANISH REGIONAL GROWTH AND CONVERGENCE	Francisco Pérez,	Universitat de València
		Javier Quesada,	Universitat de València - Spain
		Matilde Mas, matilde.mas@ivie.es	Universitat de València - Spain

The paper revises the growth patterns followed by the seventeen Spanish Regions during period 1985-2006. It starts presenting the results for Spain in terms of productivity growth, comparing them with the ones followed by the 25 countries belonging to the European Union (EU-25) as well as US, Japan, South Korea and Australia. It uses the results obtained by the *EU KLEMS* project funded by the 6th Framework Programme of the European Union, in which 18 research institutions have participated, being the authors the Spanish representatives. The *KLEMS* methodology is a version of the well known *Growth Accounting* approach as developed by Harvard's professor, Dale W. Jorgenson and associates in a series of seminal papers, starting with Jorgenson and Griliches (1957). In order to apply this methodology to the Spanish regions it has been necessary to elaborate previously a database for the same set of variables. The *Growth Accounting* exercises performed in this paper require information for capital and labor inputs with a relatively high level of disaggregation. Capital input has been divided into three categories: Infrastructures; Information and Communication Technologies (ICT); and non ICT, non Infrastructures capital. Labor input -measured in terms of hours worked has been differentiated according to three levels of educational attainment. Some of the results of the analysis are the following ones: 1. Along the period 1985- 2006, the main sources of Spanish productivity growth have been labor qualification and capital accumulation, being the contribution of Total Factor Productivity (TFP) negative. 2. There are important differences among Spanish regions both in terms of labor productivity performance and in terms of endowments of the factors of production. 3. In all regions, capital contribution –both, human and physical- have contributed positively to productivity growth. It has been especially relevant the contribution of ICT capital, more important than infrastructures or the remaining types of capital. On the contrary, TFP contribution has been negative in all regions for the period 1995-2006. 4. There is evidence of a process of convergence in labor productivity among Spanish regions. The lowest differences among regions correspond to labor qualification, and the highest ones to infrastructures. Finally, ICT capital - together with human capital- show the highest speed of convergence, whereas infrastructures endowments converge at the lowest pace.

2231	DYNAMIC OF INCOME CONVERGENCE AND ECONOMICS GROWTH IN LATIN AMERICA	Lucas Sabioni Lopes, lucas.lopez@ufv.br	FEDERAL UNIVERSITY OF VIÇOSA - BRAZIL
		Silvia Harumi Toyoshima ,	FEDERAL UNIVERSITY OF VIÇOSA - BRAZIL

The process of per capita income convergence is a phenomenon which has provoked many discussions in academic environment. However, there are few researches about Latin America. For this reason, the objective of this paper was to study the occurrence of convergence and its dynamics. Besides this, it was applied the Mankiw, Romer and Weil, MRW (1992) model to Latin American countries. The econometrics tests followed the Baumol (1986) proposal. Using the data base available in Penn World Table to 1951 to 2003 period and for 19 countries, it was found the estimated coefficient of -0,46, significant statistically, which means that there was income convergence in this period. This value indicates that about half of initial differences of per capita income were reduced in last 52 years in the region. In order to confirm the results, it was applied another test of convergence, utilizing data base of Maddison (2003, available in <http://www.ggd.net/>) for 1870 to 2003 period for 7 countries

(Argentina, Brazil, Chile, Mexico, Uruguay and Jamaica). The coefficient has found was -0,67, also significant, which means that in the last 130 years, circa 70% of per capita income differences disappeared ins this small group of countries. Then, as indicate theses results and the “W” test, proposed for Ben-David (1991), in which are constructed moving panel, the income convergence in Latin America occurred slowly along the years. During the period of 1951 to 1968 this phenomenon was interrupted. But, after 1968 the convergence was accentuated until the beginning of 1990’s, when it was verified the tendency to income divergence. It was concluded that the convergence was prevalent in all period but in nowadays the results presented the contrary tendency. In order to apply the MRW (1992) model to Latin American data, the per capita output of 2003 was regressed using the average of this variables in the period 1979 to 2003: 1<sup>a</sup>) investment/output rate (saving proxy); 2<sup>a</sup>) literacy rate (human capital proxy); and 3<sup>a</sup>) population growth rate. These data were collected in the statistical base of Penn World Table and Cepal. The estimates presented waited signals, i. e., the first two variables obtained positive coefficients and, the third one negative signal. However, the coefficient related to the saving was insignificant statistically, because of multicollinearity. The R<sup>2</sup> was 60% and the test F was significant at 1% and it was not detected the presence of heterocedasticity, according many tests. This evidence show that the poor Latin America countries need to apply policies of natality control, physical capital and education investment, in order to maintain the sustainable growth of income and to catch up the developed countries. It has not occurred as our research indicates, because the convergence process was decreased.

2232	IMPACT OF PRODUCTS WITH DESIGNATION OF ORIGIN (PDO) IN MEXICO, AS A SUBSET OF CULTURAL GOODS, FROM A REGIONAL ECONOMY APPROACH	Manuel Pérez Tapia, homo.economicus@hotmail.com	Universidad Nacional Autónoma de Mexico
		Marisol Velázquez Salazar, velazquezsm@hotmail.com	Universidad Nacional Autónoma de Mexico

Mexico, like other countries, has had to legally protect some of its domestic products that have quality and unique features. These only occur in particular geographical environment, including specific natural, historical and human factors, in order to avoid unfair competition through imitation, falsifications or adulteration. In addition, the designation of origin politic preserves the cultural character of that goods. The products with designation of origin are part of cultural property because in its production, creativity is an important input and its consumption is a symbolic component. It preserves customs within the society in which they occur. Agro-industrial products and handicrafts find in the products with designation of origin, a tool to maintain uniform quality, to penetrate domestic and international markets in a better position and promote the integration of productive chains. Likewise, the PDO constitute a strategy of organized producers to differentiate their product and have competitive advantages in marketing their product. On the social side, the goods retain their cultural and historical character that make them special products inside certain regions of the country. Under the regional economy approach we explain the benefits of the products with designation of origin in their regions at a economic and social level. We consider that the economic growth of a region is usually associated with the performance of production chains, promoted by the production with designation of origin. In this way, regional development planning is benefited by the results of this analysis.

Within this context, the objective of this study is to analyze the significance of the products with designation of origin in Mexico, from a regional approach, using statistical techniques and spatial analysis.

2233	PUBLIC SPENDING AND ECONOMIC CONVERGENCE IN LATIN AMERICA: A SPATIAL ECONOMETRIC APPROACH	Jorge Eduardo Mendoza Cota, jmendoz@mail.sdsu.edu	San Diego State University
------	---	--	----------------------------

This study investigates the pattern of growth of the Latin American economies from 1950 to 2000. The methodology for the analysis is based on spatial econometrics techniques. The results show absolute and conditional convergence between 1950 and 1975 and divergence with the reduction of public spending between 1980 and 2000. The fixed effects spatial regression corroborated the same pattern of economic growth in Latin America. The local Moran coefficients for the period 1950-2000 were statistically significant for Mexico, Colombia, showing that both countries showed a relationship with slow growth economies (Central America). Between 1980 and 2000 the global Moran coefficient was negative, indicating adverse spatial interactions within the region.

2241	A SOCIAL HISTORY OF THE XXTH CENTURY. EVIDENCE FROM COLOMBIAN MUNICIPALITIES	Alejandro Gaviria, agaviria@uniandes.edu.co	Universidad de los Andes
		David Gelves, d-gelves@uniandes.edu.co	Universidad de los Andes

In this article we characterize the social progress of Colombia during the XX<sup>th</sup> century. By using the Unsatisfied Basic Needs index as the reference for social welfare, we study the dynamics of this social process between 1918 and 2000. The observed evolution, despite showing a general improvement, is highly persistent, localized and polarized in two groups: high and low levels of poverty. Municipalities that are recently founded, more distant from principal markets and with high concentrations of black and agricultural population tend to be poorer today.

2242	BRAZILIAN SPATIAL DYNAMICS IN THE LONG RUN (1872-2000): "PATH DEPENDENCY" OR "REVERSAL OF FORTUNE"	Leonardo Monasterio, leonardo.monasterio@gmail.com	Federal University of Pelotas
------	--	---	-------------------------------

This paper analyzes the spatial dynamics of Brazilian regional inequalities between 1872-2000 using contemporary tools. The first part of the paper provides new estimates of income per capita in 1872 by municipality using census and electoral information on income by occupation. The level of analysis is the Minimum Comparable Areas 1872-2000 developed by Reis (2008). These areas are the least aggregation of adjacent municipalities required to allow consistent geographic area comparisons between census years. In the second section of the paper, Exploratory Spatial Data Analysis, Markov chains and stochastic kernel techniques (spatially conditioned) are applied to the dataset. The results suggest that, in broad terms, the spatial pattern of income distribution in Brazil during that period of time has remained stable.

2243	SECOND NATURE GEOGRAPHY AND REGIONAL INCOME DISPARITIES IN COLOMBIA	Jesús López-Rodríguez, jelopez@udc.es	University of A Coruña, Spain
		Maria Cecilia Acevedo, mcevedov@gmail.com	Harvard Kennedy School

In this paper, we derive an econometric specification relating wages to a distance weighted sum of the volumes of economic activities of the surrounding locations, from a New Economic Geography model. Then, we test our econometric specification with data for Colombian departments in the period 1975-2000. The empirical results, from standard and Arellano-Bond-type panel data estimations, confirm the theoretical predictions of our model, showing that second nature geography factors (access to consumer markets) are a key variable in explaining the spatial distribution of wages in Colombia.

2311	BOGOTÁPOLIS: THE LOCATION OF MANUFACTURING JOBS IN A DEVELOPING METROPOLIS, THE CASE OF BOGOTÁ 1992 - 2003	Javier Pérez Burgos, jip33@cornell.edu	Cornell University
------	--	---	--------------------

Developing cities have often tried to control rapid urban growth through policies that influence the location of firms and thus of employment. Such policies tend to be inefficient and costly, because they attempt to reverse trends that are poorly understood and fixed through the operations of markets. Attempts to influence location dynamics should complement urban investment programs with information that reflects the demand for space within the city. This paper analyzes the spatial distribution of manufacturing jobs in Bogotá, Colombia, over the 1992-2003 period, and contrasts the results with the predicted spatial structure from the 1970's. With information at the firm level from Colombia's National Statistics Department (DANE) and its industrial directory, the study shows strong evidence that the forecasted decentralization pattern of manufacturing employment with the 1970-1975 data, has not fully materialized. The previous suggests that Bogota's employment location patterns diverge from the ones found in the early stages of industrialization in U.S. and European cities. A demographic analysis at the level of the firm was made by estimating birth, mortality, mobility, and permanence rates. The findings show that Bogota's Central Business District (CBD) has lost its power to create new manufacturing jobs; instead, zones distant from the CBD are beginning to play the role of employment incubation areas. The decentralization process found in the 1970's has not been constant, because firms prefer to move to places with similar conditions as their origins. Different concentration measures indicate that there is no continuity in the dispersion of manufacturing establishments during the period and that new jobs are now a product of new small firms, rather than the product of mature and large firms. Standard distance and contiguity indexes show that multiple significant centers of employment have appeared for nondurable goods, such as foods and chemicals. On the other hand, durable goods such as textile and fabricated metal remain dispersed without showing the capacity to concentrate and seize the benefits of agglomeration. The previous indicates an incomplete industrial specialization process of the urban space, meaning that recent trends in terms of urban planning and zoning are not coherent with firm location logics. Structural changes in the national and regional economies, manufacturing's lower participation in the aggregated product, as well as shifts in the political administration of the city may explain part of the story. However, the empirical findings of this article offer an alternative view to the probable effects of industrial location policies in developing contexts.

2312	MARKET POTENTIAL AND SPATIAL CONCENTRATION. MEXICO 1988-2003.	Manuel Damián Lecumberri Fernández, lecumberri2000mx@yahoo.com.mx	Universidad Nacional Autónoma de Mexico
------	---	--	---

Since the middle eighties México's economy has been increasingly open to international markets, particularly to the USA. This process has implied important changes in the spatial distribution of economic activity, which have been documented by several authors. After exploring some (descriptive) aspects of this concentration changes, my research estimates two market potential equations, proposed by Hanson (1993), using *municipal* data of the *Censos Industriales de México* (1989-2004) in a non linear least squares panel with fixed effects. First one of this resembles Harris (1954) equation, explaining wages in one region in terms of the sum of the distance weighted purchasing power of all other regions. The second one is a reduced form of the four instantaneous equilibrium equations in the core-periphery model proposed by Krugman (1991) and Fujita, Krugman & Venables (1999). My results suggest that wage differentials can be explained in terms of the market potential hypothesis. More interestingly, they also suggest that access to the USA market has been a determinant of the heterogeneous performance of the Mexican regions. The Hanson-FKV equation implicitly estimates the core-periphery structural parameters, which can be then compared with those estimated by Hanson (1993, 2005) using *county* data from the USA. Finally I present four regional public policy suggestions, which I believe are consistent with my results.

2313	STAYING ON TOP. WHY CITIES MOVE UP (OR DOWN) THE URBAN HIERARCHY: AN INTERNATIONAL COMPARISON OVER A HUNDRED YEARS.	Jonathan Denis-Jacob , Jonathan_Denis-jacob@UCS.INRS.Ca	University of Quebec - Canada
		Mario Polèse , mario.polese@ucs.inrs.ca	Universiy of Québec - Canada

An abundant literature has accumulated on the stability over time of urban hierarchies and city-size distributions. The observed stability has strong theoretical foundations, harking back to central place theory and Zipf's rank-size rule. We look at the evolution of urban hierarchies in 74 nations since 1950 and 52 nations since 1900, focusing on cities at the top of the ladder. The principal constraint is empirical: constructing the appropriate data base with consistent urban area definitions over time while also accounting for changes in national boundaries.

Our universe comprises 375 urban areas for 1950 and 288 urban areas for the year 1900, each ranked then and now within their respective national urban systems. Rank-correlations were carried for both sets for all cities and for sub-sets of cities. As would be expected, correlations with current ranks are much stronger with 1950 than with 1900 rankings. Europe shows significantly greater stability than New World or Developing nations, a sign that urban hierarchies tend to stabilize once they mature. In Europe, changes at the top are exceptional.

Outside Europe changes at the top are far less unusual. Some cases stand out such as the Rio de Janeiro / São Paulo reversal, the Montreal/ Toronto reversal, and the fall of Kolkata (Calcutta) from first to third place since 1900. A systematic explanation of why top cities move up or down the urban hierarchy is difficult to arrive at. The paper identifies five possible causes, but which do not necessarily apply to all situations.

2321	A SIMULATION ANALYSIS OF TECHNOLOGICAL PROPAGATION EFFECTS OF MARSHALLIAN EXTERNAL ECONOMIES: A CGE APPROACH	Hirotsada KOHNO,	University of Tsukuba
		Hiroyuki SHIBUSAWA, shibu@hse.tut.ac.jp	Toyohashi University of Technology
		Yoshiro HIGANO, higano@jrsai.envr.tsukuba.ac.jp	University of Tsukuba

In this paper, we construct a computable general equilibrium model to evaluate technological propagation effects of Marshallian external economies. Two models, decentralized and centralized, are defined in a static framework. There are two kinds of externalities, Marshallian external economies and the technological propagation effects. We derive a subsidy system to realize a social optimum in a decentralized economy. A computable general equilibrium model with the externalities is developed. It is calibrated for an input output table of Japan. The benefits of the technological propagation effects are analyzed under an analytical scenario.

2322	ASSESSING THE SPATIAL EFFECTS OF THE U.S.-COLOMBIA TRADE PROMOTION AGREEMENT ON COLOMBIAN DEPARTMENTS: A GENERAL EQUILIBRIUM APPROACH	Leandro de Hollanda, leandrodehollanda@usp.br	University of São Paulo
		Marco Laes, marco.laes@usp.br	University of São Paulo

Pending Congressional approval, the U.S.-Colombia Trade Promotion Agreement (TPA) should have great impacts, especially on Colombian economy. Immediately upon entry into force of the agreement, over eighty percent of U.S. exports of consumer and industrial products to Colombia will be duty-free, and nearly all non-textile consumer and industrial products made in Colombia will enter the U.S. duty-free. This papers models Colombia's economy in a department-level using the CEER Model, a spatial CGE model of the Colombian economy, to analyze short and long-run effects. According to the literature asymmetric results are expected to occur, since Colombia has a highly concentrated economy.

2323	ELASTICITIES OF REGIONAL TOTAL FACTOR PRODUCTIVITY ON COLOMBIAN ECONOMY: A	Daniel Grimaldi, dgrimaldi.daniel@usp.br	University of São Paulo
------	--	---	-------------------------

	SPATIAL CGE APPROACH	Guilherme de Moraes Attuy, guilherme.attuy@usp.br	University of São Paulo
--	----------------------	--	----------------------------

Empirical evidence has reinforced the idea that only stock differences of human and physical capital are not able to explain most of the income gap across regions. In this context, total factor productivity (TFP) arises as a crucial element to explain economic growth. This paper calculates the implicit TFP-growth elasticities in a spatial CGE model for Colombia. As productivity shocks are simulated – specified by regions and sectors – we obtain elasticities maps that indicate potential results of regional/sectoral policies. This innovative approach allows us to compute localized TFP effects using a greater level of economic disaggregation (7 sector and 33 regions). Hence, this suitable level of detail offers relevant inputs for a better understanding of economic performance differences across regions and sectors in a given economy.

2331	DO URBAN GROWTH CONTROLS HURT REGIONAL ECONOMIC GROWTH?	Boaz Nandwa, Ph.D., bnandwa@aud.edu	American University in Dubai
		Laudo Ogura,	Grand Valley State University - USA

This paper studies how urban growth controls (land use regulations that attempt to restrict population growth and urban sprawl) are affecting regional economic growth. Based on the evidence that growth controls have increased housing prices and diverted population growth to uncontrolled cities, Ogura (2005, *Journal of Urban Economics* 57, 371-390) argues that the resulting changes in local labor supply should induce intercity commuting of workers from uncontrolled to controlled cities. As long as only a few places adopt growth controls and intercity commuting happens, the supply of workers in the region is not significantly restricted. However, if many jurisdictions control growth, there could be a sensible restriction of labor supply as workers cannot easily find places to live in the region. Therefore, the growth of regional production might be hindered when many places adopt local land use regulations. In the model developed in this paper, both strategic and competitive behaviors of local jurisdictions are considered. Implications due to agglomeration economies are also taken into consideration. Empirical analysis is attempted through an econometric study of recent U.S. metropolitan GDP growth.

2332	LOCATION PATTERNS AND INDUSTRIAL GROWTH IN MÉXICO, 1993-2007	Jesús A. Treviño C., trevinomty@gmail.com	Universidad Autonoma de Nuevo Leon-Mexico
		Ardeshir Anjomani,	School of Urban and Public Affairs

There are three aims in this paper: (i) To measure the geographic concentration level of industries using alternative measures of spatial inequality. (ii) To test the convergence hypothesis in both the neoclassic theory and the new economic geography. Or, on the contrary, as some authors suggest it (*vgr.*, Myrdal, Galbraith, Jacobs, and recent “new intuitionalist” scholars), to verify that the centripetal forces of current concentrations counterbalance the relocation forces associated to NAFTA; and (iii) To identify the relative importance and industrial mobility of the thirty two Mexican states considering the nine manufacturing industries at the two digit level in the national accounting.

The paper is divided into four sections to accomplish these objectives. The first part reviews the regional historical patterns of industrial location in Mexico. This section shows that two national strategies of economic development until mid-eighties (the import substitution industrialization until mid-seventies and the oil export strategy that replaced it until mid-eighties) encouraged the concentration of industrial activity in only three main cities: Mexico City, Monterrey, and Guadalajara. The free trade reforms after 1985—mainly the macroeconomic changes related to the General Agreement on Tariffs and Trade (GATT) and the NAFTA—facilitated the access to the US market and broke down the highly concentrated spatial pattern of industries. This spatial deconcentration, however, selectively benefits to the Northern states located along the NAFTA corridors, in general, and those located on the Lázaro Cárdenas-Kansas City corridor, in particular.

The second and third sections address the spatial patterns of industrial location to test the convergence hypothesis. To accomplish this objective, the second section suggests three new spatial

indices: relocation, retention, and delocation of industrial activity. These indices are based on the intersection of the standard deviational ellipses of the georeferenced industrial production. The paper complements this analysis with the so called “Barro-type regressions,” to detect the regional convergence/divergence process, and industrial mobility indices, to reveal interstate changes of industries. The third part applies all techniques and procedures introduced in the previous section. Results show that bigger state economies do not grow slower than smaller ones, as suggested by the regional convergence theories. Findings also show that the industrialization of the Northern states does not imply a deindustrialization of the Southern ones or a loss of the industrial hierarchy of the main industrial cities.

The fourth section, the last one, gathers all ideas presented in this paper and assembles them into a regional development strategy. The study concludes that the NAFTA macroeconomic context shifting the location of industries towards some selected northern states is a unique opportunity to successfully guide the regional relocation of industries. This section suggests that regional planners should be technically clear and politically smart to integrate an urban strategy of industrialization into a national strategy of development. The study concludes indicating some guidelines for future research.

2333	REGIONAL ECONOMIC GROWTH UNDER TRADE LIBERALIZATION IN MEXICAN MANUFACTURING: AN ANALYSIS BASED ON GROWTH ACCOUNTING	Adrián de León Arias, leonarias@yahoo.com	Universidad de Guadalajara
------	--	--	----------------------------

After twenty years under trade liberalization for the Mexican economy, there is enough availability and variability in the data for exploring the dynamic of manufacturing productivity by region and state. In previous research, de León (2008) focused on two *regions* where according to the so called Krugman-Livas-Hanson, the impact of trade liberalization due to transportation costs, agglomeration economies, and increasing returns will be more relevant: the Northern Border and the states where the largest cities were located. The research showed evidence for structural changes in those two regions since 1985-1988 to 2003.

In this paper, I extend the data to include the recent 2008 census data and analyze the dynamics of total factor productivity, following the Harberger (1998)'s methodology, for regions as conventionally defined and states. Then, I characterized the regional patterns and identified, through exercises of growth accounting, the sources of their economic growth (including human capital). Furthermore, I use that data to explore if transportation costs and export oriented growth have played a significant role in explaining the economic growth in “winner” and “loser” (in terms of growth) states.

This research will contribute to develop the growth accounting methodology for the analysis of economic growth across regions or state and it shows that may be a useful analytical tool for identifying variations and differences in growth patterns even when the overall economic growth for a country does not show wide variations. Mexico is a very interesting case in this context.

2341	DYNAMIC CARBON TRADING USING THE BOLTZMANN DISTRIBUTION	Ji-Won Park, jp429@cornell.edu	Cornell University
------	---	-----------------------------------	--------------------

The Boltzmann distribution in physical sciences provides the probability distribution of a physical system in its energy substates. In this presentation, the Boltzmann distribution is introduced to the dynamic carbon trading, demonstrating how the final equilibrium can be reached in the trading.

For the dynamic carbon trade, 10 countries under the Kyoto Protocol were considered. Those countries were selected based on Annex I countries in the Kyoto Protocol. There are 38 Annex I countries, but 10 countries are selected randomly to show a simple case for the dynamic carbon trade using the Boltzmann distribution

The carbon credits for each country were calculated by forest carbon cap (Mt C / yr). In each carbon trading cycle, a unit carbon credit from each country was traded with others based on the probability distribution from the Boltzmann distribution.

The repetition of the trading demonstrates how carbon credits can be reallocated between countries as a function of trading cycle. Three specific scenarios have been considered for the empirical test.

Scenario 1: No changes of forest carbon caps during dynamic carbon trading

Scenario 2: 0.1 % decreases in one country's forest carbon caps in each trading cycle.

Scenario 3: 0.1 % increases in one country's forest carbon caps in each trading cycle.

The results show how the trading equilibrium can be reached. These also demonstrate that the equilibrium of dynamic carbon trading can be reached faster and slower, depending on the initial constraints.

2342	FOSSIL-FUELS, BIO-FUELS, AND FOOD: RANKING PRIORITIES!	Guilherme Leite da Silva Dias, guilhoto@usp.br	University of Sao Paulo
		Joaquim José Martins Guilhoto, guilhoto@usp.br	University of Sao Paulo

This paper deals with the question of the trade-offs between bio-fuels, fossil-fuels, and food. To do so an analysis is conducted taking into consideration the differences in relative prices and in the productive structure among the countries. The results shows that in general food puts a greater stress over the economies than energy does, and mainly in the developing economies. As a consequence of that, the possibilities for the growing use of bio-fuels is limited and restrict to countries where it is possible to have an expansion of bio-fuel production without compromising the production of food and without putting more stress over the environment. This, by its turn, restricts the possibilities for a world policy of bio-fuels with the consequence that bilateral agreements would be the dominant ones.

2343	HYDRIC SUPPLY INCREASE AND ECONOMIC DEVELOPMENT: A VALUATION OF ECONOMIC IN PERSPECTIVE AFTER THE BRAZILIAN PROJECT OF THE TRANSFER OF THE SÃO FRANCISCO RIVER.	Eduardo Kaplan Barbosa, eduardo.barbosa@bndes.gov.br	Brazilian Development Bank
------	---	---	----------------------------

Hydric Supply Increase and Economic Development: A Valuation of economic in perspective after the Brazilian project of the Transfer of the São Francisco river.

The Brazilian steppe climate is characterized by a higher annual rainfall average when compared to other similar climates in others regions of the world, unfavorable soils to agriculture, diminished capability of subterranean water absorption. The region receives more than 3000 hours of sunlight per year, increasing the loss of water due to evaporation and transpiration. Its hydrographic network, mainly constituted by intermittent rivers, demands water impounding and stocking by artificial means, like water wells, cisterns and, most important, weirs. However, the incertitude on the future water supply leads to wastes when physical constraints impeach higher storage in weirs.

Although several tries on increasing water supply, the Brazilian steppe to be served by the above-mentioned project presents lower water consumption index than those recommended by United Nations. The main reasons that raise difficulties to water utilization both for economic and human consumption are the high level of weir evaporation, the erratic and concentrate rainfall regime and the need of long term planning to its consumption, in order to avoid droughts. In addition, the economic viability of investments of water supply depends on minimum scale utilization, a condition hard to accomplish due to the demographical dispersion of this region.

In 2005, the Brazilian Federal Government introduces the Project of Transfer of the São Francisco, intending to assure the water supply to his region. The project consists in a large-scale interbasin transfer to rivers and weirs within the dry steppe climate states in four northeastern states in Brazil, aiming to divert no more than 3.5% of the river's water for municipal water supply, industry and irrigation. The highlands of these states, constitute one of the poorest regions of Brazil, with lowest rates of employment, income and HDI.

The initial concern of this paper is to understand the effects over water supply within the area of scope of the transfer after the conclusion of the project, estimating the stock of available water to both economic and personal consumption. Afterwards, profiting the recent regional economics

bibliography, the paper investigates the contribution of the project to regional development, examining growth possibilities of regional economic base and central places economies. This paper aims comprehending the relevance of higher water supply to i) strengthening industrial sectors, mainly those of high labor-intensity, and ii) providing typical urban services, specially those needed to a city to fulfill the role of a central places that provides services to surrounding areas.

2411	FISCAL DECENTRALIZATION IN BRAZIL – THE CREATION OF NEW MUNICIPALITIES DURING THE 1990S	Tiago Cisalpino Pinheiro, tcisalpino@gmail.com	Pontifical Catholic University of Minas Gerais
------	---	--	--

The public decentralization in its main aspects is being pointed out in the last years by some important international institutions such as the World Bank, the Organisation for Economic Co-operation and Development (OCDE) and the United Nations as a strategic policy for achieving the Millennium Development Goals. The main argument of this statement is that local governments can understand the needs of their population better and act more efficiently on solving them. After a long period of political centralization, the developing world is through an intense process of public decentralization and a lot of discussions about it have been published which provide important material to improve the effectiveness of the process in promoting human development.

In Brazil the ending of the military dictatorship in 1985 marked the beginning of an intense process of decentralization that encompasses the political, administrative and fiscal spheres. There was a significant increase of the federal transfers to the municipalities and an increase in the portion of the national tributes allocated by them. This process was combined with the transfer of public responsibilities such as Health and Education to the municipalities. One of the remarkable distinctions of the Brazilian process from others was the territorial decentralization which results on the creation of more than 1.400 new municipalities during the 1990's. Most of these new municipalities have population below 10 thousand people and are located in the poorest regions of Brazil.

The fiscal decentralization combined with territorial decentralization put these new municipalities, especially the ones with less than 5.000 people, in the group with highest revenues per habitant in the Country. This set of new federal entities beside their heterogeneity and dispersion through the territory share some important characteristics. These municipalities have the highest fiscal dependence of federal transferences and the lowest tributary revenues of municipal tributes. These municipalities still have the worst social indicators than the Brazilian average.

This paper will bring some of the recent discussions of the literature on decentralization with emphasis on the Brazilian process. Then we discuss more detailing if the territorial decentralization in Brazil that resulted on the creation of more than one thousand new municipalities with the highest revenues per habitant in the poorest regions of the Country resulted on significant improvements of public services.

2412	INSTITUTIONAL ASPECTS OF THE FISCAL DECENTRALIZATION PROCESS: COMPARATIVE ANALYSIS OF THE PERFORMANCE PUBLIC FINANCES BETWEEN BRAZIL AND COLOMBIA IN THE LAST TWO DECADE.	João Matos Filho, matosfilho@gmail.com	Universidade Federal do Rio Grande do Norte
		William Gledson, williangledson@gmail.com	Universidade Federal do Rio Grande do Norte

The objective of this article is to analysis the effects of the recently administrative and fiscal decentralization processes on the public finances and on the responsibilities of the local governments in Latin America, taking the past two decades of Brazilian as well as Colombian experiences as reference. The examination of the contemporary literature related to these two countries, which have different systems of government – Brazil is a Federative Government, while Colombia is a Unitary Government – suggested some comparative research questions whose responses may contribute to explain the nature of the decentralizations processes in the Latin America economies: i) how became

the composition and the distribution of the public revenues and responsibilities among the levels of governments after the decentralization process? ii) which were the increases that have occurred on the public revenues and on the responsibilities by the public policy execution in the two countries after their decentralization processes? The article's basic assumption is that the institutions qualities, that is, the formal and informal rule applied to the decentralization processes in the two countries have been decisive to the success of the decentralized public management, although not sufficient. The realization of this hypothesis requires a bibliographic analysis and the use of statistical instruments, in order to identify possible explanations to the differences on the management quality related to each one of the countries. The main conclusions of this article points out that, besides decentralization, coordination of the government levels by the central government and institutional development of the local governments have been decisive factors to the success of the decentralization process.

2413	SUB-NATIONAL LOAN AUTHORIZATION IN BRAZIL: IS THERE A ROOM FOR OPPORTUNISTIC POLITICAL BEHAVIOR?	Ciro Biderman, biderman@MIT.EDU	Massachusetts Institute of Technology
------	--	------------------------------------	--

This paper tests if there is political influence in the approval by the Senate of a request for loans from sub-national governments. Although all requests were approved in the period analyzed, in this paper I show that the approval timing depends on the link between the governor requesting the loan and the Senator responsible to prepare a report indicating if the loan should be accepted or not.

2421	IMPACT OF INTERNATIONAL MIGRATION ON HOUSEHOLD BEHAVIOR IN NICARAGUA	Mónica L. Parra Torrado, mlparrat@gmail.com	FEDESARROLLO
------	--	--	--------------

This paper investigates the effect of income sent by Nicaraguan migrants to the US and Costa Rica on employment and investment decisions made by households in the sending communities during the 1990s. It contributes to the literature on remittances and migration in three fronts: the identification strategy, the specific findings and the theoretical reasoning used to explain them. The decision to migrate and the decision to send remittances are likely to be taken simultaneously with other decisions taken by households and individuals, such as the decisions to work, to consume or to invest. Thus, studying the impact of migration and remittances on household behavior poses a real challenge in terms of identification. Existing work on the effect of migration and remittances on labor supply has encountered either zero or negative effect on labor force participation and labor supply of the migrant's male family members. The identification strategy used in this paper attempts to address the endogenous relation between migration, receiving income from migrants and the households' outcome. Using a nine-year panel dataset for Nicaragua, I use variation in destination wages matched with past migration information at the individual level to identify the impact of income from migration on labor force participation and investment decisions in the originating households. In addition, taking advantage of a panel dataset I estimate a fixed effect model to control for households' time-invariant unobserved characteristics. I find that heads of households who have migrants in the United States are more likely to be employed. This result indicates the value of the empirical identification strategy employed, as it contrasts sharply with those found in earlier literature which did not control for endogeneity of international remittances. Comparing the estimates with those yielded by ordinary least squares (OLS), I find the latter to be characterized by substantial biases which would affect most previous estimates in the literature. Regarding investment decisions, I find a significant positive effect of international migration on the probability of business ownership of households when the head is not a migrant. On the other hand, when the household head is a migrant the effect is negative on business ownership and positive on real estate ownership. Hypotheses interpreting these results are proposed and their validity assessed based on the empirical evidence.

2422	MIGRATION AND DEVELOPMENT: EMPIRICAL APPLICATIONS BASED ON THE SOLOW-SWAN MODEL WITH MIGRATION	Andre Braz Golgher , agolgher@cedeplar.ufmg.br	Cedeplar/UFMG
		Lizia Figueiredo,	Cedeplar/UFMG
		Roberto Santolin,	Cedeplar/UFMG

Differences in per capita income among the states of Brazil were quite large in the middle of the last century, but there has been an important convergence (both beta and sigma ones) process, that has stopped in the middle of the eighties. One aspect that may promote a convergence in per capita income is migration. In this perspective, low income ones would present a tendency to lose population, while high income ones would present positive net migration.

The Solow-Swan model with migration addresses the relation between migration and economic growth (Barro and Sala-i-Martin, 1995). This model was slightly modified in the paper and we obtained the

equation  $\xi(\hat{k}) \equiv m(1 - \frac{\hat{\kappa}}{\hat{k}})$ , where  $m$  is the net migration rate and,  $\hat{k}$  is the capital stock per effective

non-migrant worker. This term represents the impact of migration on growth. This impact may be positive, neutral or positive depending on the some features that are synthesized in the table below. Notice that  $n$  is natural increase due to fertility and mortality,  $x$  is technological growth rate and  $\delta$  is depreciation rate.

Table 1 – Possibilities for the dynamics of regions

Net migration	Values of other variables	What would happen?
$m > 0$	$1 - \frac{\hat{\kappa}}{\hat{k}} \geq 0$ or $\cong 0$ and $\xi(\hat{k}) > 0$	<b>A</b> - Migration as depreciation. Growth of population due to migration and steady state
	$1 - \frac{\hat{\kappa}}{\hat{k}} \ll 0$ and $\xi(\hat{k}) < 0$ and $(x + n + \delta + \xi(\hat{k})) > 0$	<b>B</b> - Migration as investment. Growth of population due to migration and steady state
	$1 - \frac{\hat{\kappa}}{\hat{k}} \ll 0$ and $\xi(\hat{k}) < 0$ and $(x + n + \delta + \xi(\hat{k})) < 0$	<b>C</b> - Migration as investment. Growth of population due to migration and “black hole” condition
$m < 0$	$1 - \frac{\hat{\kappa}}{\hat{k}} > 0$ and $(x + n + \delta + \xi(\hat{k})) > 0$	<b>D</b> - Migration as investment. Decrease of population due to migration
	$1 - \frac{\hat{\kappa}}{\hat{k}} < 0$	<b>E</b> - Migration as depreciation. Decrease of population due to migration and possibly a “white dwarf” condition

Table 1 showed five possibilities of migration/capital/population dynamics, from A to E. We classified empirically the microregions in Brazil in one of these five possibilities with the use of Cluster Analyses.

2423	THE INFLUENCE OF GOVERNMENT CASH TRANSFERS ON MIGRATION	Carlos R. Azzoni, cazzoni@usp.br	University of São Paulo
------	---	-------------------------------------	-------------------------

The study investigates the impacts of cash-transfers to poor families on internal migration in Brazil. We use the propensity score to match cash-transfer recipients to other similar individuals. We then apply a bivariate probit model to estimate the probability of a beneficiary of the program being simultaneously a migrant. The results indicate that the cash-transfers from the *Bolsa Família* program contribute to reduce migration of individuals from the poor regions to the rich areas, but do not seem to create enough incentives to make individuals already living outside their state of birth to return home. These results point out to a long run implication of BF cash-transfers for the dynamic of regional income inequality in Brazil. Because of the higher proportion of poor individuals in the poor regions, the short and medium-run impacts of the BF program is to attenuate regional income inequality in the country. But, depending on how good the education provided to the children of the beneficiaries will be, it is possible that in the long run the program can contribute to increase regional income disparities in Brazil.

2431	BARRIERS TO ENTRY, MARKET EXPERIMENTATION AND AGGREGATE PRODUCTIVITY	Adriana Kugler	
		John Haltiwanger	
		Marcela Eslava, meslava@uniandes.edu.co	Universidad de los Andes
		Maurice Kugler	

In this paper, we explore the role of reforms for the dynamics of entry into regional markets, using data from the Colombian Annual Manufacturing Survey for 1982-2004. We are in a unique position to achieve this goal, as our data allows us to measure a plant's TFP, demand shocks, input prices and output prices. A challenge relative to our earlier work is that it is not feasible to estimate the determinants of entry at the micro level in an analogous fashion to estimating the determinants of exit. For the latter, the plants at risk are all plants in existence in a given market and exit can be modeled as a discrete outcome from this group. For entry, the at risk group is all potential entrants -- a group that is inherently hard to measure. We follow the insights and methods of Dunne et. al. (2007) to generate a market level measure of potential entrants, and use a market level based estimation model of entry. Our definition of a market is one industry in a particular region. The underlying conceptual model of entry is one where potential entrants make their decisions on the basis of expected profits. In a nondistorted economy, the determinants of expected profits are market fundamentals like expected productivity, expected demand and expected input costs. In a distorted economy, additional determinants are the rents and losses due to expected distortions. If the latter are sufficiently severe, then the role of expected market fundamentals will be distorted. We thus investigate the changing role of market fundamentals on entry in light of market reforms. Relative to previous work, an advantage of our approach is that we can directly measure these market fundamentals, rather than having to rely on proxies such as the size of the population in the market. Our results indicate that prior to market reforms, the impact of expected market fundamentals often worked in the wrong direction in Colombia -- consistent with the hypothesis of substantial distortions. Following reforms, we find that the effect of market fundamentals like expected productivity, expected demand and expected input costs all changed towards the direction of a non-distorted economy. To measure market reforms in our analysis, we take two complementary approaches. First, we use a simple pre and post reform dummy to characterize the alternative regimes. Second, we use industry-specific information on trade liberalization to exploit a reform measure that has both cross sectional and time series variation. An exploration of where entrants fall in the distribution of plants in terms of market fundamentals suggests that reforms yielded greater experimentation. After reforms, the average productivity of new entrants fell. Other effects are also consistent with experimentation. First, the average productivity of exits also fell. Second, we find that after reforms productivity grows during the first few years after a plant enters, compared to a declining pattern of productivity upon entry prereforms.

2432	FROM TERRITORIAL INNOVATION SYSTEMS -TIS- TO ANTHROPOLOGY OF KNOWLEDGE, TOWARD A "KNOWING SHARED MODEL"	Bernardo Herrera, bherrera@uniandes.edu.co	Universidad de los Andes
------	---	---	--------------------------

In the study of research and development (R+D) for Latin America much of the analysis on technology comes from the approximation to National Innovation Systems from which consequently the analysis of Territorial Innovation Systems arises -TIS-. Based on the last mentioned (-TIS-), knowledge geographers<sup>1</sup> show the growing importance of the role played by Institutions of Higher Education -IHE- as strategic agents in the technological transference process. Elsewhere, this strategic role of universities has been played for constructing "Learning Regions" (Maillat, 1999) or in networking innovation dynamics together with other territorial players (Gertler et Wolfe, 2004). Beyond this geography of knowledge context, -IHE's- Institutions, as the Universidad de los Andes -Uniandes-, are looking for an ethnographic innovations analytical framework. For this purpose, we consider it pertinent to introduce the vision of "praxeology" in the form that this approximation allows us to draw what authors such as Brassac (2007) calls the "architecture of knowledge"<sup>2</sup>. We state, as methodological hypothesis that *blending* this tow focus (the geography and the anthropology approaches), is possible to include the main factors for analyzing the sharing technology trajectories.

2433	MULTIFACTOR PRODUCTIVITY IN THE BRAZILIAN AGROINDUSTRY	GONÇALVES, DANIEL F., danielf_goncalves@yahoo.com.br	University of North Pioneer
		PARRÉ, JOSÉ L.	State University of Maringá

This work deals to the analyzis of the multifactor productivity index, as well as its labor productivity for the Brazilian agroindustry. To do it, the data from the PIA, published by IBGE was used, for the years of 1996 and 2005. By using these data, it was possible to show the importancy of Brazilian agroindustry to the Brazilian economy, as well as its participation for exportation. Following to that, the aproximation of Tornqvist index methodology was used to calculate the productivity. It was verified that agroindustry, besides its importance to exportations from Brazil, it's also important to generate employment and showed itself productive. And with use the method of Tornqvist for the calculation of multifactor productivity index, the Brazilian agroindustry showed a productivity growth of 26% at the end of the period analyzed.

2441	A DYNAMIC MULTI-OBJECTIVE LOCATION/ALLOCATION MODEL FOR THE AIR CARGO INDUSTRY	Samuel J. Ratick, sratick@clarku.edu	Clark University
		Yuko Aoyama, yaoyama@clarku.edu	Clark University
		Guido Schwarz, gschwarz@unal.edu.co	Universidad Nacional de Colombia

In this paper, we present a prescriptive logistics network model suited to analyzing current transformations in the air cargo industry. This sector of the economy has been undergoing a process of profound restructuring, affecting inter-firm relations as well as the spatial network patterns of air cargo flows. These changes take place both in the physical space of goods transportation and the virtual space of information exchange, with the latter having a direct effect on the former. Changes in cargo flows, beyond merely reflecting global trade patterns, are thus the result of restructuring in the virtual space of information exchange and inter-firm relations. The location/allocation model can be employed to evaluate the precise interplay between industrial restructuring and new information technologies on the one hand and the spatial outcomes in a given air cargo network on the other.

The model extends the interperiod network storage location allocation (INSLA) framework (Ratick et al., 1987) by representing cargo flows and associated information transmission in separate yet linked sub-networks. While the air freight moves over a geographical transportation sub-network in accordance with airlines' route structures, the information required to process the shipment is transmitted over a separate virtual sub-network. The model's formulation optimizes total logistics cost of an air cargo system, including transportation, inventory, investment, and information transmission and processing cost. The second objective minimizes the weighted average delivery time of air cargo, by representing transit and storage time for cargo through the inclusion of logical time/delay nodes in the goods-flow sub-network.

A sample problem is constructed on a hypothetical air cargo network composed of different types of intermediaries (conventional airlines, integrated express carriers, forwarders, internet booking portals) to show how the model can help in determining the cost- and time-optimal delivery solution. It is also designed to demonstrate how the dynamic multi-objective approach can deliver insights not only into the spatial patterns of an air cargo network, but also into less tangible processes of industrial restructuring in the virtual space of information and inter-firm relations.

The model is parameterized through a Monte Carlo simulation and solved for the extreme points on the non-inferior tradeoff curve of the objectives. The results show that the tradeoff between the cost and time minimization objectives leads to quite distinct choices for the optimal airline and intermediary: if cost is paramount, an integrated express carrier is usually the best option, while for the fastest service, airlines with route structures more apt to the specific transportation requirements perform better.

In this respect, the simulation results depict the most current developments in the air cargo industry. As a consequence of the integrated express carriers' strong competitive position as reflected in the model, cargo hub airports are growing at a rapid pace at the home bases of these carriers. Similarly, the overall model framework can be used in general to represent and analyze air cargo networks and scenarios of industrial restructuring of varying complexity.

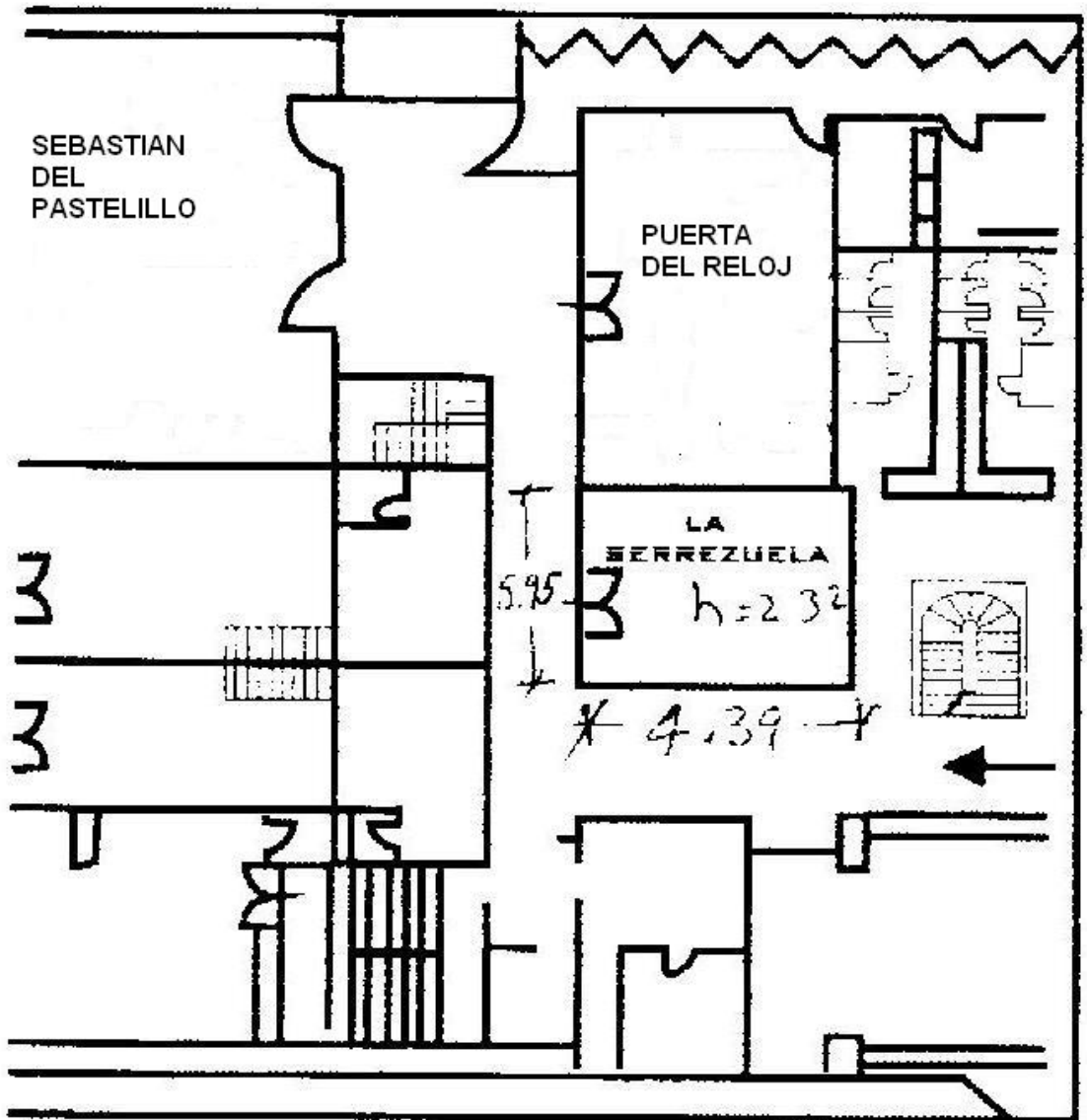
2442	EVALUATING COMPETITIVE RETAIL STRATEGIES IN AN URBAN COMMERCIAL DISTRICT WITH SELF- ORGANIZING MAPS	Jean-Claude Thill, Jean-Claude.Thill@uncc.edu	University of North Carolina at Charlotte
		Masakuni Kakoi, kakoi@econ.fukuoka- u.ac.jp	Fukuoka University
		Saburo Saito, saito@fukuoka-u.ac.jp	Fukuoka University

While research on the “hard” and objectives characteristics of commercial districts is well established, little attention tends to be paid to “soft” characteristics of shops and service outlets that form these districts. Consumer preferences in many cities around the world have experienced dramatic changes over the past few years. In particular, it has been observed that preferences are become much more diverse than before. As a result of this diversification, the retail and service function of city center retail environment has been transformed in ways that mark a change with past evolutions. Accordingly, it is important and timely to study the comparative advantages of service and commercial functions of contemporary commercial districts to chart more effectively the business strategies that support vibrant districts in today's highly dynamic environment. This study aims to examine the competitive strategies of service and retail businesses of a city center district that are attractive to sophisticated urban consumers. We use a survey of retail businesses in the Daimyo District of Fukuoka, Japan, as well as a survey of randomly sampled customers in the same district. The analysis starts with a conceptual model of retail businesses derived by applying the data mining technique of Self-Organizing Maps to the shop characteristics, including product depth and breadth, fashion and style orientation, and socio-demographic target. Segments of shops are thus identified. Next, we evaluate these segments by using the consumer behavior survey data. The analysis allows us to identify variables that are important for attracting customers. In addition, the consumer survey data bring a demand-side perspective to the interpretation of the model of retail strategies derived from the training of Self-Organizing Maps. Our results also support the evidence of consumers' variety seeking behavior.

2443	TERTIARY SERVICE AND LOCAL DEVELOPMENT	Fernando Salgueiro Perobelli, fernando.perobelli@ufjf.edu.br	Federal University of Juiz de Fora- Brazil
		Kênia Barreiro Souza	Federal University of Juiz de Fora- Brazil
		Suzana Quinet de Andrade Bastos, quinet.bastos@ufjf.edu.br	Federal University of Juiz de Fora- Brazil

The tertiary sector has more attention from the literature only after the calculus of economic aggregates. This is due to its high share in the Gross Domestic Product (GDP) in different countries. Along the XIX century the heterogeneity of activities brings diverse interpretations about the increase or decrease of this sector. Another important aspect was the discussion about the interactions between tertiary and industrial sector and than explain the recent economic growth. The present paper calculates the Granger causality between tertiary and industrial sector. We use Brazilian GDP for both sectors for the third quarter of 1994 to the fourth quarter of 2007. The results show a bi causality relationship between the variables. Thus it is important to analyze in more detail the interactions between the two sectors. In order to reach this aim we applied the shift-share analysis that enables us to classify the activities as dynamic or stagnated. We use data from sectoral employment disaggregated by 24 sectors as proposed by IBGE. Those data correspond to the number of works by activity sector and are captured by mesoregions for the states located at the Southeast part of Brazil (that concentrate more than 60% of the Brazilian tertiary sector). The shift-share analysis enables us to verify that, in general terms, regions with faster growth are the ones with economies more diversified and in which both activities are dynamic. We also elaborate maps in which are possible to verify the spatial distribution of dynamic regions for all the activities. We conclude that there is not a relationship well defined between the industrial dynamic sectors and tertiary dynamic sectors. However, there is some points that deserve more attention: a) the number of regions that present “trade” as a dynamic sector; b) the desagglomeration economies that are reflected at the low dynamism of metropolitan areas; c) the strong concentration of dynamic industrial activities at Sao Paulo state and d) the spread of tertiary activities in all the regions studied.

# HOTEL INFORMATION



**SEGUNDO PISO  
DE CONFERENCIAS**

**SECOND FLOOR MEETING ROOMS**





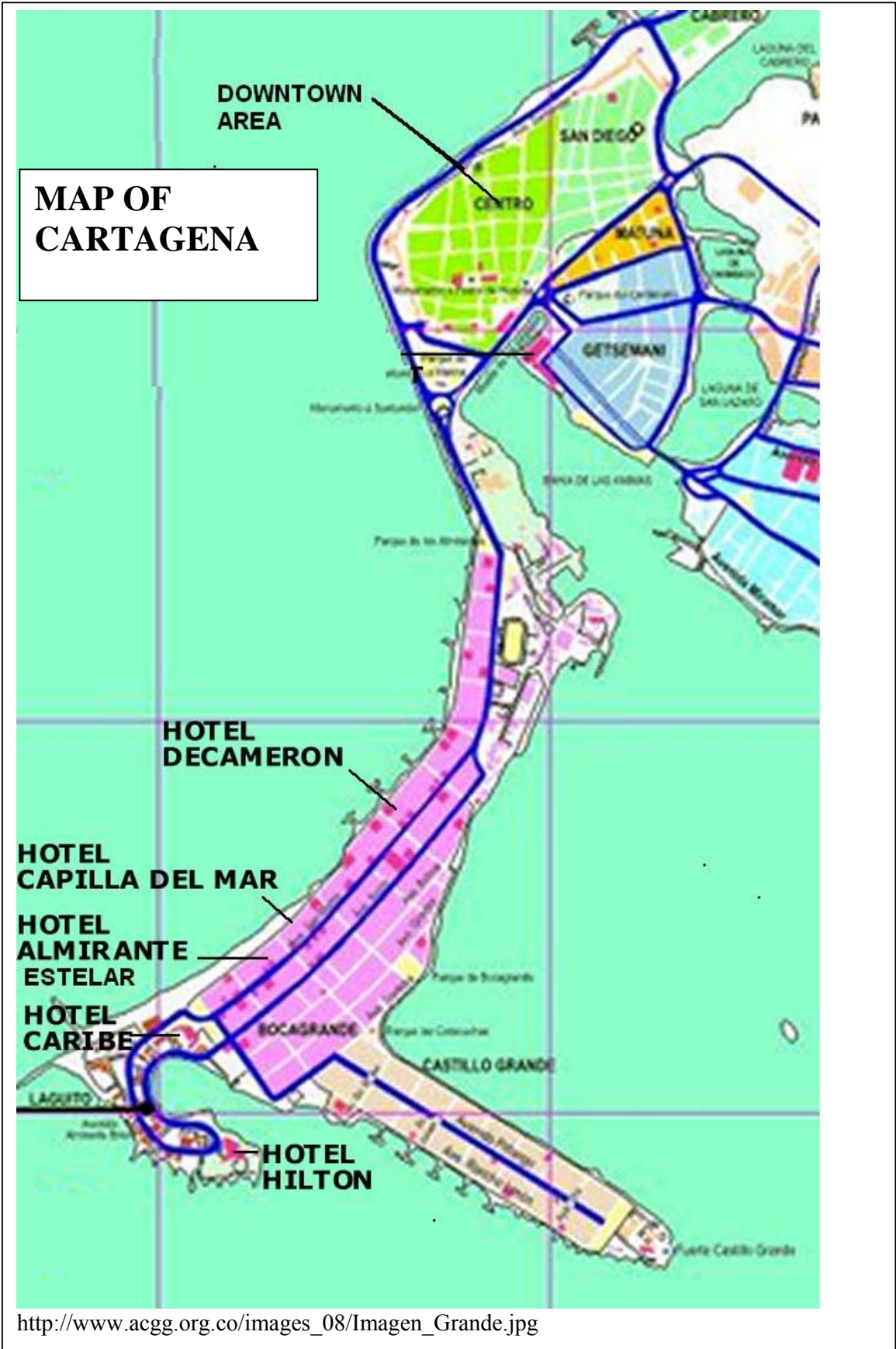
## Cartagena de Indias

1. Hotel Santa Clara
2. Edificio Banco de la República
3. Club de Pesca
4. Restaurante La Vitrola
5. La Crêperie Galería Café Restaurante
6. Restaurante Portón de Santo Domingo
7. Restaurante Mar de Juan
8. Castillo de San Felipe
9. Monumento a los Zapatos Viejos
10. Torre del Reloj
11. El Café San Pedro
12. Las Bóvedas
13. Plaza de la Aduana
14. El Portal de los Dulces
15. Casa de la Moneda
16. Restaurante La Fragata
17. Hotel Santa Teresa
18. Hotel Las Américas
19. Hotel Almirante Estelar



1. Santa Clara Hotel
2. Banco de la República Building
3. Club de Pesca
4. La Vitrola Restaurant
5. La Crêperie Galería Café Restaurante
6. Portón de Santo Domingo Restaurant
7. Mar de Juan Restaurant
8. Castillo of San Felipe
9. Monument to the Old Shoes
10. Clock Tower
11. Café San Pedro
12. The Warehouses of Santa Clara
13. Customs Plaza
14. The Candy Gate
15. The Mint
16. La Fragata Restaurant, House of Rafael Nuñez
17. Santa Teresa Hotel
18. Las Américas Hotel
19. Almirante Estelar Hotel

Cartagena de Indias



[http://www.acgg.org.co/images\\_08/Imagen\\_Grande.jpg](http://www.acgg.org.co/images_08/Imagen_Grande.jpg)