SKILLS FOR UPGRADING:  
WORKFORCE DEVELOPMENT AND GLOBAL VALUE CHAINS IN DEVELOPING COUNTRIES

Gary Gereffi & Karina Fernandez-Stark  
Center on Globalization, Governance & Competitiveness (CGGC)  
Duke University

Phil Psilos  
International Development Group  
RTI International

Workshop Skills for Upgrading  
Washington, DC  
FOMIN-InterAmerican Development Bank  
Nov. 17, 2011
WORKFORCE DEVELOPMENT
FOR A GVC WORLD

Phil Psilos
International Development Group
RTI International
Objectives

• Global Value Chain (GVC) methodology no attention given to workforce development in the past
• Research goal → Explore workforce development strategies in developing countries
• Context → Shifting upgrading GVC dynamics
• Audience → policymakers, donors and development practitioners
Workforce Development

• Definition:
  “The process by which a territory’s initial endowment of human capital is converted, though education, training, and relevant services such as labor market intermediation, exchange, and information, into a source of competitive advantage for firms and industries in the territory.” (authors)

<table>
<thead>
<tr>
<th>Training Modalities under WfD May Include</th>
</tr>
</thead>
<tbody>
<tr>
<td>General basic education</td>
</tr>
<tr>
<td>Secondary education</td>
</tr>
<tr>
<td>Vocational education</td>
</tr>
<tr>
<td>Higher education</td>
</tr>
<tr>
<td>Lifelong learning</td>
</tr>
</tbody>
</table>

Source: Creticos and Axman, 2009
Workforce Development: Conceptual Model

The Economy
- Economic policies
- Business practices
- Incentives to train:
  - Employers
  - Workers

Skills Demand

Information Coordination Relationships

Skills Supply

The Training System
- Provision & finance
- Skills attainment
- Incentives to train:
  - Providers
  - Trainees

Faster Growth
- More productive workforce
- Better employment results
- Progression up the value chain
- Poverty reduction

Match of Skills to Jobs

Slower Growth
- Joblessness and idleness
- Skills shortages alongside glut
- Low-end of production chains
- Brain drain

Source: Tang, McGough, Valerio, World Bank HDN, 2010
Key Workforce Development Challenges

• Matching future skills needs is particularly challenging for developing countries
• Information challenges impede consensus
• TVET Systems in DevCos are very traditional vis-à-vis delivery mechanisms
• Most recent dominant mode was clusters
  – Overly-local: myopic/parochial in practice
  – Pre Globalization: Ignorant of GVC governance
## Clusters vs. GVCs

<table>
<thead>
<tr>
<th></th>
<th>Cluster-Based Perspective</th>
<th>GVC Perspective</th>
<th>Workforce Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trade</strong></td>
<td>Trade in finished goods</td>
<td>Trade in “tasks” (activities) and intermediate goods</td>
<td>Process-based knowledge and skills rival product-based knowledge</td>
</tr>
<tr>
<td><strong>Networks</strong></td>
<td>Dense networks of local firms</td>
<td>Production networks “controlled” by lead firms</td>
<td>Increased importance of managerial learning from global sources</td>
</tr>
<tr>
<td><strong>Participation</strong></td>
<td>“Organic” participation in clusters by all firms</td>
<td>GVC participation requires deliberate “choice”</td>
<td>Knowledge of position in and trajectory of upgrading provides insight into skill requirements</td>
</tr>
<tr>
<td><strong>Norms and regulations</strong></td>
<td>Local norms of cooperation</td>
<td>Compliance with international standards</td>
<td>Rising importance of training to comply with new product and process standards and internationally recognized certifications</td>
</tr>
<tr>
<td><strong>Barriers to entry</strong></td>
<td>Low barriers to entry for locally improved products</td>
<td>Commercial and product standards constitute high barriers to entry for developing country firms</td>
<td>Lead firms as gatekeepers to enforce skill requirements and product quality; international partnerships</td>
</tr>
<tr>
<td><strong>Geography</strong></td>
<td>Geographically concentrated production of related goods and services</td>
<td>Geographically dispersed production of intermediate goods and final products</td>
<td>Reduced access to “tacit knowledge” about industries</td>
</tr>
</tbody>
</table>

© 2011 Duke CGGC
• Consider key industries in light of globalization (GVC organization)
• Create new frameworks for linking skills and upgrading along critical GVC path(s)
• Define/refine relationships between types of upgrading and required workforce development investments
GLOBAL VALUE CHAINS & ECONOMIC UPGRADING: A FRAMEWORK

Gary Gereffi
Center on Globalization, Governance & Competitiveness (CGGC)
Duke University
CGGC News

The Development and Diffusion of Powder Coatings in the US and Europe
December 8, 2009 - A new report sponsored by EDF's Corporate Partnerships Program on the development and diffusion of powder coatings has been released by CGGC. The report traces the development of powder coatings into different product markets, and the factors that lead to their adoption in the US and Europe. The key leverage points of actors in the powder coating value chain to facilitate the technology. Market developments in China are also discussed. The report and followon industry trade journal articles in the European Coatings Journal and Powder Coating (forthcoming Feb 2010) can be found here: Powder Coatings Report & EDF Article.

The Offshore Services Industry: A New Opportunity for Latin America (La Industria de Servicios Ofshing: Una oportunidad para América Latina)
October 21-23, 2009 - Gary Gereffi, Mario Castello and Karina Fernandez-Stark presented the paper "La Industria de Servicios Ofshing: Una oportunidad para América Latina" in the annual REDBERO meeting, with the title "La Promoción del Comercio y la Inversión en la Economía de los Pueblos. El caso de la promoción de los servicios de ofshing regional?" Presentation in Spanish: & ACG Policy Brief.

Hybrid Trucks: Strategic Win for Economy and Environment
June 11, 2009 - A high-tech truck convoy pulled up at Capitol Hill to showcase the emergence of fuel-and-emissions-saving hybrid technology for the nation’s biggest vehicles. The event, organized by clean transportation group CALSTART, unveiled a new CGGC study that highlights jobs created in truck manufacturing as well as other areas crucial to building the green economy: advanced energy storage, power electronics and control systems. More.

Manufacturing Climate Solutions

NEW chapters now available!

Public Transit Buses
Wind Energy
Residential Re-Insulation

CGGC value chain analysis finds U.S. job opportunities in manufacturing low-carbon technologies. More >>

Work Opportunities

Associate in Research - Value Chain Analysis of U.S. Rail Vehicle Manufacturing, 11/1/10 More info

Associate in Research - Value Chain Analysis of U.S. Advanced Battery Development & Manufacturing, 11/1/10 More info

CGGC Project Websites

- NC in the Global Economy
- Global Value Chains
- Global Engineering & Entrepreneurship
- Nanotechnology in Society

Search by Country

Choose a Country: 

Source: http://cggc.duke.edu/
What is a Value Chain?

A value chain describes the full range of activities that firms and workers carry out to bring a product from its conception to its end use and beyond.
Global value chain analysis provides both conceptual and methodological tools for examining the global economy.

- **Top-down**: a focus on lead firms and inter-firm networks, using varied typologies of industrial “governance”
- **Bottom-up**: a focus on countries and regions, which are analyzed in terms of various trajectories of economic and social “upgrading’’ or “downgrading’’

**FOUR dimensions:**
1) Value chain: raw materials → inputs → final product
2) Geographic scope
3) Analysis of lead firms and governance
4) Institutional framework
Several forms of upgrading have been identified within the GVC framework:

- **product upgrading** - moving into more sophisticated product lines;
- **process upgrading** - transforms inputs into outputs more efficiently by reorganizing the production system or introducing superior technology;
- **functional upgrading** - acquiring new functions (or abandoning existing ones) to increase the overall skill content of the activities.

Both upgrading and downgrading can occur in an industry, and different types of firms (SMEs or large; local private, foreign or state-owned) can be affected.

Value-Added Curve in Textiles

Value-Adding Activities

Pre-Production
Intangible
R&D
Design
Logistics: Purchase
Production
Logistics: Distribution
Marketing
Services
Post-Production
Intangible

Pre-Production Intangible
Production: Tangible Activities
Post-Production Intangible

© 2011 Duke CGGC
Workforce Development and the Global Economy: Linking Skills and Capabilities

- Economic upgrading requires both firms and workers to upgrade the skill content of their activities.
- Workforce development requires public and private interventions to transmit needed skills.
- Countries must develop effective institutional capabilities to interact with GVC lead firms to promote both global and local demand-driven workforce development.
- Demand-driven WFD typically varies by industry and over time, as competitive conditions change, and thus we must look at GVCs in a comparative perspective.
CASE HIGHLIGHTS AND KEY FINDINGS

Karina Fernandez-Stark & Gary Gereffi

Center on Globalization, Governance & Competitiveness (CGGC)
Duke University
Industry and Country Selection

**FRUIT & VEGETABLES**
- Chile
- Jordan
- Honduras
- Kenya
- Morocco

**APPAREL**
- Bangladesh
- Lesotho
- Nicaragua
- Sri Lanka
- Turkey

**OFFSHORE SERVICES**
- Chile
- India
- Philippines
- Spanish Speaking Countries
- Central American and Caribbean Countries

**TOURISM**
- Costa Rica
- Jordan
- Vietnam

© 2011 Duke CGGC
Skills for Upgrading Methodology

Research carried out in three main steps:

1. **Mapped GVC structure**
   - principal activities
   - value adding stages
   - lead firms

E.G. MAPPING THE FRUIT & VEGETABLE GVC

ACTORS
- Large, medium & small producers
- Cooperatives
- Producer Exporters

PRINCIPAL ACTIVITIES
- Land Preparation, Planting, Weeding, Harvesting
- Land Preparation, Planting, Weeding, Harvesting

Packaging & Cold Storage

2. **Identified and analyzed individual developing countries**
   (level of upgrading)

E.G. IDENTIFYING UPGRADING STAGE IN APPAREL GVC

ACTORS
- Exporters
- Producer-Exporters
- Small Producers
- Cooperatives

PRINCIPAL ACTIVITIES
- Grading, Quality Control, Packing, Labeling, Cold Storage.
- Purchasing, Distribution, Marketing, Design, R&D
Comparative analysis

How workforce development initiatives are linked to country industry upgrading

Offshore Services Global Value Chain and Workforce Development Initiatives

Chile

India

Philippines

Spanish Speaking Central American and Caribbean Countries
Geography of the Fruit & Vegetable GVC

Trade flows and employment of select countries in fruit and vegetable industry

- 15,000 Honduras
- 400,000 Morocco
- 67,000 Jordan
- 450,000 Kenya
- 450,000 Chile

To Japan & China
Country Cases: Fruit & Vegetables Value Chain (simplified)

Chile

Kenya & Morocco

Jordan & Honduras

Inputs → Production for Export → Packing & Cold Storage → Processing → Distribution & Marketing

© 2011 Duke CGGC
Buyer-Driven Fruit & Vegetables GVC

Governance Structure in the Fruit and Vegetables GVC

Developed Countries

WAL-MART

Global Buyers

TESCO

Standards & Regulations

Local farmers and packing plants

Developing Countries

© 2011 Duke CGGC
Job Profiles and Upgrading

Value Chain Segments
- Production for Export
- Packing & Cold Storage
- Processing

Skill Level

Job Profiles
- Harvest Worker
- Tractor Operator
- Irrigation Technician
- Pesticide Handler
- Packing Worker
- Line Manager
- Inspector
- Quality Assurance Manager
- Line Worker
- Machine Maintenance
- Production Supervisor

Farming Manufacturing

© 2011 Duke CGGC
### Workforce Development and Upgrading

<table>
<thead>
<tr>
<th>Production (Entry in the Value Chain)</th>
<th>Workforce Development Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Skills Preparation: Short training and/or on-the-job training</td>
</tr>
<tr>
<td></td>
<td>Institutions: Governments, private sector, buyers, training institutions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Packing &amp; Cold Storage (Functional Upgrading)</th>
<th>Workforce Development Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Skills Preparation: Short training, certification, and/or on-the-job training</td>
</tr>
<tr>
<td></td>
<td>Institutions: Governments, private sector, buyers, training institutions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Processed Fruit &amp; Vegetables (Functional Upgrading)</th>
<th>Workforce Development Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Skills Preparation: Short training and/or on-the-job training</td>
</tr>
<tr>
<td></td>
<td>Institutions: Governments, private sector, buyers, training institutions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Product Upgrading</th>
<th>Workforce Development Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Skills Preparation: Short training and/or on-the-job training, Formal training to obtain certifications</td>
</tr>
<tr>
<td></td>
<td>Institutions: Governments, private sector, buyers, training institutions, and NGOs</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Process Upgrading</th>
<th>Workforce Development Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Skills Preparation: Short training and/or on-the-job training, Formal training to obtain certifications</td>
</tr>
<tr>
<td></td>
<td>Institutions: Governments, private sector, buyers, training institutions</td>
</tr>
</tbody>
</table>
### Upgrading Trajectory: Production to Packing and Cold Storage

<table>
<thead>
<tr>
<th>Packing &amp; Cold Storage (Functional Upgrading)</th>
<th>Typically women are hired to work in the packing plants. They must follow strict procedures to pack the products and prevent losses as well as protect against sanitary problems.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production for Export</td>
<td><strong>Skills Preparation</strong>&lt;br&gt;Short training, certification, and/or on-the-job training</td>
</tr>
<tr>
<td>Packing &amp; Cold Storage</td>
<td><strong>Institutions</strong>&lt;br&gt;Governments, private sector, buyers, training institutions</td>
</tr>
<tr>
<td>Processing</td>
<td></td>
</tr>
</tbody>
</table>

---

**Public and private partnership driver for upgrading and workforce development**
GVC Upgrading & Workforce Development: Select Findings

- Only countries able to comply with high standards are rewarded with easy access to high value markets.
- Standards training has become a basic requirement for GVC participation.
- Private sector is the most important actor in WFD; NGOs fill in where local sector does not have capacity or expertise.
Offshore Services Global Value Chain
Offshore Services:
Global Supply and Demand

- **US & Canada**: 51.1%
- **EU-15**: 30.6%
- **Asia-Pacific**: 16.2%
- **Rest of the World**: 2.1%

**45% of the industry market**

**Same number of call centers employees than India**

Source: CGGC based on Everest & Datamonitor
Offshore Services Global Value Chain

**Horizontal Activities**

- **ITO** (Information Technology Outsourcing)
  - Software R&D
  - IT Consulting

- **KPO** (Knowledge Process Outsourcing)
  - Business Consulting
  - Business Analytics
  - Market Intelligence
  - Legal Services

- **BPO** (Business Process Outsourcing)
  - **ERM** (Enterprise Resource Management)
    - Finance & Accounting
    - Procurement, Logistics and Supply Chain Management
    - Content/Document Management
  - **HRM** (Human Resource Management)
    - Training
    - Talent Management
    - Payroll
    - Recruiting
  - **CRM** (Customer Relationship Management)
    - Marketing & Sales
    - Contact Centers/Call Centers

**Vertical Activities**

- **Industry specific**
  - Banking, Financial Services and Insurance (BFISI)
    - Ex. Investment research, private equity research, and risk management analysis
  - Manufacturing
    - Ex. Industrial Engineering and sourcing and vendor management
  - Telecommunications
    - Ex. IP transformation, Interoperability testing and DSP and multimedia
  - Energy
    - Ex. Energy Trading and Risk Management, Digital oil field solutions
  - Travel & Transportation
    - Revenue management systems, customer loyalty solutions
  - Health/Pharma
    - Ex. R&D, clinical trials, medical transcript
  - Retail
    - eCommerce and Planning, merchandising and demand intelligence
  - Others

**Value Added**

- **LOW**
  - Service desks
  - Technical and Technology Support
  - Testing

- **HIGH**
  - High-end business functions
  - Vertical value added services

© 2011 CGGC
# Job Profiles and Upgrading

## Value Chain Segments

<table>
<thead>
<tr>
<th>ITO</th>
<th>BPO</th>
<th>KPO</th>
</tr>
</thead>
</table>

## Skill Level

- 3
- 2
- 1

## Job Profiles

<table>
<thead>
<tr>
<th>IT Technician</th>
<th>Software Programmer</th>
<th>IT Consultant</th>
<th>Software R&amp;D Engineer</th>
<th>Call Center Operator</th>
<th>F&amp;A Analyst</th>
<th>Marketing &amp; Sales Analyst</th>
<th>Finance Analyst</th>
<th>Business Analyst</th>
<th>Legal Analyst</th>
</tr>
</thead>
</table>
Upgrading Trajectory: Entry into the Value Chain

Call centers hire people with high school diplomas or Bachelor’s degrees. Further skills training is provided by the company or private training institutions.

**Skills Preparation**
- Short technical training

**Institutions**
- Private sector
- Government
• Interpersonal and language skills are highly valued in this sector.

• High competition for talent has resulted in shift from individual spending on education and training to firm-based training.

• Tax incentives and public subsidies for education are increasingly used to attract offshore operation centers.
Apparel Global Value Chain
Value Added Curve:
The Apparel Global Value Chain

Pre-Production
Intangible

Production: Tangible
Activities

Post-Production
Intangible

R&D

Design

Purchasing

Production

Distribution

Marketing

Services
## Job Profiles and Upgrading

<table>
<thead>
<tr>
<th>Value Chain Segments</th>
<th>Assembly/CMT</th>
<th>Design/ODM</th>
<th>Marketing/OBM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skill Level</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Job Profiles</td>
<td>SEWING MACHINE OPERATORS</td>
<td>LINE LEADERS</td>
<td>TAILORES</td>
</tr>
<tr>
<td></td>
<td>CUTTING MACHINE OPERATORS</td>
<td>PRODUCTION FLOW SUPERVISORS</td>
<td>DESIGNERS</td>
</tr>
<tr>
<td></td>
<td>PRODUCTION FLOW SUPERVISORS</td>
<td>PATTERN MAKERS (APPAREL &amp; TEXTILES)</td>
<td>SENIOR DESIGNERS</td>
</tr>
<tr>
<td></td>
<td>PATTERN MAKERS (APPAREL &amp; TEXTILES)</td>
<td>TAILORES</td>
<td>GENERAL BUSINESS</td>
</tr>
<tr>
<td></td>
<td>TAILORES</td>
<td>DESIGNERS</td>
<td>BRANDING SPECIALIST</td>
</tr>
<tr>
<td></td>
<td>DESIGNERS</td>
<td>SENIOR DESIGNERS</td>
<td>MARKETING SPECIALIST</td>
</tr>
</tbody>
</table>

© 2011 Duke CGGC
Upgrading Trajectory:
Production to OEM/Full Package

Firms learn buyer preferences, build relationships with textile suppliers and retail outlets. Recruit experienced employees from the textile industry. New staff hired for financial and logistics functions.

Skills Preparation
On the job training in textiles, sourcing, supply chain coordination, and logistics and cost optimization. secondary and tertiary education

Institutions
Private sector
Educational institution
GVC Upgrading & Workforce Development:
Select Findings

• Significant dependence on on-the-job training (critical role of managers / supervisors)

• The frequent shortage of skilled labor limits industry upgrading.
  — Expatriates generally meet this skills gap
  — Certain upstream or downstream (design & marketing) activities are performed abroad in firm HQs

• Efforts by both the public sector and donor agencies to engage TVETS in the industry have met with limited success (mismatch of private sector skill requirements)
Tourism Global Value Chain
# Tourism Global Value Chain

<table>
<thead>
<tr>
<th>Outbound Country</th>
<th>Inbound Country</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tourist</strong></td>
<td></td>
</tr>
<tr>
<td>Distribution</td>
<td>Distribution</td>
</tr>
<tr>
<td>International Transport</td>
<td>Regional Transport</td>
</tr>
<tr>
<td>Travel Agent</td>
<td>National Travel Agent</td>
</tr>
<tr>
<td>Intl. Air Carrier</td>
<td>National Air Carriers</td>
</tr>
<tr>
<td>Cruise</td>
<td>Ground Transportation Services</td>
</tr>
<tr>
<td>Tour Operator</td>
<td>Large Hotels</td>
</tr>
<tr>
<td>Independent</td>
<td>Small Hotels</td>
</tr>
<tr>
<td>Independent</td>
<td>Retail</td>
</tr>
</tbody>
</table>

## Natural Assets in Tourist Destinations
Flora/Fauna, Environment, Historical sites, Identity Groups

© 2011 Duke CGGC
Workers need training in hotel services, back office, and management. There is often a lack of senior management positions, and demand for middle management and hotel services is strong.

**Skills Preparation**

Internal training (formal or on-the-job) and university degrees for higher positions

**Institutions**

Private sector

Tertiary education institutions
• Access to global tourism market is dependent on meeting international service quality expectations.

• These skills not delivered by local educational institutions.

• Language and interpersonal skills are key shortcomings for developing countries.
Key Findings

- Workforce Skills
- Stakeholders and Institutions
- Global Standards
Key Findings: Workforce Skills

• **New set of workforce skills needed to participate in GVCs.**
  – Traceability requirements in fresh produce markets - farmers must read and write in order to track all farm activities, from pesticide application to the number of trees pruned

• **Workforce development varies by upgrading trajectories**
  – BPO to KPO: requires more sophisticated analytical staff, who must have an undergraduate or graduate degree in business administration

• **Soft/interpersonal skills are key in today’s world of work**
  – All industries demand employees with “upgradable” potential. Leadership, teamwork, and conflict management skills increase productivity and adaptability.

• **Managerial skills for GVCs are in short supply**
  – Apparel: In Lesotho, Taiwanese managers who do not speak the local language are incapable of communicating and training workers. Firms under South African management have acquired skills more rapidly.

• **More and better professionals in bottleneck positions**
Key Findings: Stakeholders & Institutions

• Educational institutions **not aligned with GVC requirements**
  – In Costa Rica, multinational hotel chains had to set up internal training programs

• **New labor force intermediaries involved in skill provision**
  – Individual firms, industry associations, special government programs and NGOs. In Sri Lanka, JAAF authored *Competencies & Beyond*, a skills manual for the apparel industry.

• **Public and private partnerships are efficient and effective**
  – In Chile, the public-private strategic council developed specific workforce skills to meet international requirements
• **Global standards** force local workforce upgrading
  – In Kenya’s horticulture sector, training is increasingly focused around Kenya GAP, the local equivalent of the widely adopted private standard, GlobalGAP.

• **Institutional approaches** to meeting standards and requirements differ by industry and country
  – On-the-job training, skills definitions & competency profiles created: JAAF, Sri Lanka (Apparel); ASOEX, Chile (Fruit and vegetables) & ACROPOT, Costa Rica (Tourism)

• **National certification of skills** is a powerful tool for GVC labor markets
  – Chilean Skills Certification program: These certifications are valid for a period of three years & emphasize continued learning. Also ASEAN Regional certification and CARIBCERT.
RECOMMENDATIONS

Phil Psilos
International Development Group
RTI International
Recommendations: Summary

- Dialogue, information sharing and collaboration between domestic and international stakeholders
- Globalize national and regional skills standards
- Establish or restructure frameworks for regulation and accreditation in the training and education sector
- Formalize communication channels between educational institutions and the private sector
- Embed GVC upgrading priorities in the local education system for sustainable long term growth
Globalize national and regional skills standards

• Create Venues for Multi-Sector Collaboration

• Align National/Regional Frameworks with Best Practice Certifications

• Certify Skills Obtained in Formal and Informal Training:

• Work to Globalize Innovative Skills Certifications
Establish or restructure frameworks for regulation and accreditation in the training and education sector

- Identify and Address Gaps
- Incorporate Awareness of Global Industry Requirements into National Accreditation
- Provide Incentives for Accreditation
Formalize communication channels between educational institutions and the private sector:

- Engage Employers around Upgrading
- Get Business in the Classroom
- Support Career Counseling and Development
Embed GVC upgrading priorities in the local education system for sustainable long term growth:

- Basic Education
- Soft Skills
- Business School Curricula
- Training for Bottlenecks
- Improve Labor Market Information and Graduate Tracking
THANK YOU FOR YOUR ATTENTION!

Gary Gereffi  
Director  
agere@soc.duke.edu

Phil Psilos  
Sr. Economic Growth Specialist  
ppsilos@rti.org

Karina Fernandez-Stark  
Senior Research Analyst  
karina.stark@duke.edu

http://www.cggc.duke.edu  
http://www.rti.org/idg  

Project Website  
http://www.cggc.duke.edu/gvc/workforce-development/