The 2010 Georgia Manufacturing Survey

How are you responding to challenging times?

This survey is conducted to develop benchmark information to help Georgia manufacturers be more competitive and improve state business and technology services to industry. Prior Georgia Manufacturing Surveys were completed in 1994, 1996, 1999, 2002, 2005 and 2008. We appreciate your cooperation in making the 2010 survey a success.

- **In return for completing your survey, we will send a summary and customized report comparing your data with industry statistics.**
- **All company information will be kept confidential**. All individual firm and facility information will be kept in a secured, limited access location. Results will only be presented in an aggregated form. Your firm or facility's identity will not be revealed in any publication or presentation of the results of this survey.
- We understand you do not always keep exact records of all activities – estimates and rounding are fine.
- This is the only copy sent to this facility. If there is another person at your location who can complete the survey, please forward this mailing to him or her.
- Survey questions refer to this facility or plant.
- Web-based survey is available at www.cherry.gatech.edu/survey

Please return this survey in the enclosed postage-paid envelope within 10 days to:

Kennesaw State University
Econometric Center
Atn: 2010 Georgia Manufacturing Survey, Project Number [ID]
1000 Chastain Road
MD 0403, BB, Bldg. 4, Rm 322
Kennesaw, GA 30144-9732

Questions about the survey?

Contact: Dimitri Dodonova
Telephone: (770) 499-3390 Fax: (770) 423-6144
e-mail: dcamargo@kennesaw.edu www.cherry.gatech.edu/survey

Please confirm your name and address and make any changes if necessary.

[Contact Name]
[Company Name]
[Address]
[City], [State] [Zip]
[Phone]

THANK YOU FOR YOUR HELP

Georgia Tech
Enterprise Innovation Institute
School of Public Policy

Georgia Department of Labor
Kennesaw State University
Habif, Arogeti, and Wynne

1. FACILTY - INDUSTRY AND NEEDS

1.1. Is this facility a single-establishment enterprise not affiliated with any other enterprises?

- ❑ **Yes** (*skip to Question 1.2)*
- ❑ **No** — this facility is part of a company or group with two or more separate facilities.

  ➥ If part of a multi-facility company or group, is the **head office** located in Georgia?

  - ❑ **Yes**
  - ❑ **No**, head office is located in _____(U.S. state) or _____ (country outside of the U.S.)

1.2. Is this business:

- ❑ Publicly traded (registered securities are available for sale to general public)
- ❑ Privately owned

  ➥ If privately owned, is this a **family-owned** business?

  - ❑ Yes
  - ❑ No

1.3. In what year did you begin manufacturing at this facility? Year: ☐

1.4. Your facility's **main product** or manufacturing activity is: *(Please check one.)*

- ❑ Food, beverages, feed
- ❑ Textiles
- ❑ Apparel, leather
- ❑ Lumber and wood products, except furniture
- ❑ Furniture (wood or metal)
- ❑ Pulp, paper, or paper products
- ❑ Printing, publishing
- ❑ Chemical, petroleum, coal & allied products
- ❑ Plastics or rubber
- ❑ Stone, clay, glass, or concrete products
- ❑ Primary metals (iron, steel, nonferrous)
- ❑ Fabricated metal products
- ❑ Machinery (industrial, nonindustrial)
- ❑ Computer and electronic products, instruments
- ❑ Electrical equipment, appliances, or components
- ❑ Transportation equipment
- ❑ Medical or laboratory supplies
- ❑ Other (please describe) _____

1.5. For the plant's main product(s), please **RANK** the order of importance of the following factors according to how your facility competes in the marketplace for sales. 1=most important, 6=least important. (*Please do not give the same ranking to more than one factor.)*

☐	Low price
☐	High quality
☐	Innovation/new technology
☐	Quick delivery
☐	Adapting product to customer needs
☐	Sustainable or green manufacturing

1.6. Did any of the following significant changes occur to this facility in the last 2 years?

- ❑ Merger with another business or part of it
- ❑ Sale or closure of part of the business
- ❑ No major change
- ❑ Other major change (please describe): _____

1.7. In which of the following areas does your facility have the most significant problems or needs?
(P*lease check all that apply.*)

- ❑ Expansion planning, facility layout
- ❑ Lean manufacturing and workflow improvement
- ❑ Quality assurance (e.g., ISO 9000, QS-9000, Six Sigma)
- ❑ Product development/design
- ❑ Marketing and sales
- ❑ Information systems and hardware
- ❑ Business strategy, financial analysis, competitiveness planning
- ❑ Basic workforce skills (e.g., reading, writing, math, keyboard skills)
- ❑ Technical skills (e.g., machining, electrical work)
- ❑ Management and leadership
- ❑ Energy cost management
- ❑ Environmental, health, safety, and workforce compliance and improvement
- ❑ Other (please describe):_____

2. PRODUCT, PROCESS AND ORGANIZATIONAL INNOVATION

A **product innovation** is the introduction of a **new or significantly improved good or service**. *The innovation must be new to your facility, but does not need to be new to your sector or market.* Resale of goods purchased elsewhere or changes to color or look are excluded.

2.1. During the period 2007-2009, did your facility introduce **new or significantly improved**: *(Please check if yes.)*

- ❑ Goods
- ❑ Services

*If you **do not check any option**, skip to Question 2.4.*
If ANY of the boxes above (from 2.1.) are checked, please continue, otherwise skip to Question 2.4.

2.2. Were any of your goods and service innovations during 2007-2009: *(Check all that apply.)*

- ❑ New to your market (introduced before your competitors)
- ❑ New only to your facility (already available from your competitors)

2.3. Using the definitions above, please, indicate what percentage of your total sales from goods and services introduced during the period 2007-2009 were:

Sales of new or significantly improved goods and services that were **new to your market** (introduced earlier than competitors)	%
Sales of new or significantly improved goods and services that were **new to your firm**, but NOT to your market	%
Sales from existing products	%
Total sales	100 %

A **process innovation** is the implementation of a **new or significantly improved production process or method of providing services**. *The innovation must be new to your facility, but it does not need to be new to your sector or market.*

2.4. During the period 2007-2009, did your facility introduce **new or significantly improved:** *(Please check if yes.)*

- ❑ Processes or manufacturing technologies
- ❑ Logistics, delivery, or distribution methods
- ❑ Processes not covered above, such as improved purchasing, accounting, or maintenance processes

An **organizational innovation** involves **new or significant changes in firm structure**, management methods, or information exchange systems.

2.5. During the period 2007-2009, did your facility introduce **new or significant changes** in: *(Please check if yes.)*

- ❑ Corporate strategy
- ❑ Management systems to better use or exchange information, knowledge and skills
- ❑ Work organization, such as changes in management or departmental structure
- ❑ Relations with other firms, such as alliances, partnerships, outsourcing, or subcontracting

A **marketing innovation** covers **new or significant changes in marketing methods** to increase the appeal of your goods or services or enter new markets. Routine or seasonal changes are excluded.

2.6. During the period 2007-2009, did your facility introduce **new or significant changes** in: *(Please check if yes.)*

- ❑ Design or packaging of goods or services
- ❑ Sales methods or distribution channels, such as Internet sales, franchising, direct sales or distribution licenses

2.7. Did your facility engage in any of the following activities to achieve **any of the types of innovation mentioned in Questions 2.1 to 2.6**? *(Please check if yes for all those that apply.)*

- ❑ In-house R&D (to increase knowledge or devise innovations, including software research)
- ❑ Purchase of R&D from research organizations or other branches of your company
- ❑ Purchase of machinery, equipment, computers or software to implement innovations
- ❑ Planning, engineering, design, or other development work to implement an innovation
- ❑ Purchase or license patents, inventions, know-how, or other types of knowledge to implement an innovation
- ❑ Training of staff to develop or introduce innovations
- ❑ Market research, advertising, and other marketing activities linked to implementing an innovation

2.8. Please indicate the **facility's expenditures** for the following innovation activities **over the last 12 months**, including personnel and related costs. (*Please insert zero in categories with no expenditures.)*

In-house R&D (including personnel costs & capital expenditures on buildings & equipment)	$
Acquisition of external R&D	$
Acquisition of machinery, equipment and software (excluding R&D-related expenditures)	$
Other development work for innovation and all other innovation-related expenditures	$
Total (sum of above 4 categories)	$

2.9. During the period 2007-2009, check if your facility:

- ❑ Ever worked with customers to create or design a product, process or other innovation
- ❑ Ever worked with suppliers to create or design a product, process or other innovation
- ❑ Applied for a patent or registered an industrial design
- ❑ Registered a trademark or assumed a copyright
- ❑ Signed a confidentiality agreement
- ❑ Published one or more papers or technical articles (in journals or conference proceedings)

2.10. During the period 2007-2009, did your facility **receive financial support** from any of these public or private sources for any of the innovation activities indicated in this section? *(Please check if yes.)*

- ❑ Public support through the U.S. Small Business Innovation Research program (SBIR or STTR)
- ❑ Other public support (loans or grants from the national, state, or local government, not the SBIR program)
- ❑ Venture capital, angel funding, or other private equity investment
- ❑ Bank loan or other private debt instrument

3. SUSTAINABLE MANUFACTURING

Sustainable manufacturing involves minimizing use of natural resources, toxic materials, waste emissions and production materials over the life cycle of the product or part to achieve cost savings, environmental, and social benefits.

3.1. Which of the following sustainable manufacturing goals are currently put into practice (or planned to be put into practice) at your facility? (*Check one option for each item.*)

	Practiced Now	*Plan to practice in next 2 years*	*No plan to practice*	*Not applicable*
Elimination of waste materials sent to landfills	❑	❑	❑	❑
No smokestacks, effluent, or waste to atmosphere, ground, water, or sewer	❑	❑	❑	❑
Operation of facilities with renewable energy sources (e.g., solar, wind, landfill gas, biomass)	❑	❑	❑	❑
Recovery and reuse of discarded products and manufactured materials (closed loop)	❑	❑	❑	❑
Reduce energy use and emissions in shipping (e.g. transport of input materials or finished products)	❑	❑	❑	❑
Reduce energy use and emissions associated with employee commuting or business travel)	❑	❑	❑	❑
Other (please describe):	❑	❑	❑	❑

3.2. A carbon footprint is an estimate of carbon dioxide (CO2) and other greenhouse gases produced by a business, individual or geographic area. Has your facility produced any estimate of its carbon footprint in the last 3 years?

- ❑ Don't know
- ❑ No → (*Skip to Question 4.1.)*
- ❑ Yes → Which of the following are the bases for the estimate? (*Check all that apply*.)
  - ❑ Online or spreadsheet calculator (e.g., EPA Climate Leaders Simplified GHG Emissions Calculator)
  - ❑ External consultant analysis
  - ❑ Systematic ongoing in-house measurement

3.3. If this facility has produced an estimate of its carbon footprint in **CO2 equivalent terms**, what is the rounded approximate total for the most recent year available in **metric tons per year**? (*Check one option.)*

- ❑ Less than 10,000 metric tons per year
- ❑ 10,000 to 24,999 metric tons per year
- ❑ 25,000 metric tons per year or more

4. MANUFACTURING PRODUCTION AND PERFORMANCE

4.1. Please, answer for the fiscal years 2007 and 2009 using rounded approximate numbers or estimates **for this facility**.

	2009	**2007**
What were your **total annual sales or gross value** of shipments?	$	$
What was the total purchase of materials, parts, and services (i.e., **cost of goods**)?	$	$
What were your **energy expenditures** (e.g., heat, electricity)?	$	$
What was the total **new capital investment**, including facility, equipment, machinery, and information systems?	$	$

	2009	**2007**
What was the percentage of sales **exported** outside the U.S. (by value)?	%	%
What was the percentage of purchases of materials, parts, and services **imported** or acquired from outside the U.S. (by value)?	%	%
What was the percentage of finished goods **imported** or acquired from outside the U.S. (by value)?	%	%

4.2. What was the average annual return on sales (pre-tax) for this facility **over the last 3 years**? [(Gross Sales-Cost of Goods)/Gross Sales] *(Please circle the closest number.)*

← **Negative return**						**Positive return** →				
-25% or more	-15%	-9%	-6%	-3%	**0%**	+3%	+6%	+9%	+15%	+25% or more

4.3. Has any work that was formerly performed at this facility been **moved outside of Georgia** within the last 2 years? Yes ❑ No ❑

*If **YES**, this work was transferred <u>outside of Georgia</u> to:*	❑Elsewhere in USA	❑Mexico, other Central or South America	❑Asia (including China, India)	❑Europe	❑Elsewhere in world

4.4. Has any work been **transferred back to this facility in Georgia** from outside the state within the last 2 years? Yes ❑ No ❑

*If **YES**, this work was transferred <u>back to Georgia</u> from:*	❑Elsewhere in USA	❑Mexico, other Central or South America	❑Asia (including China, India)	❑Europe	❑Elsewhere in world

4.5. Does this facility have a continuous improvement program?

- ❑ No → *(Skip to Question 5.1.)*
- ❑ Yes → Does the facility use any of the following programs? (*Check all that apply.*)
  - ❑ Lean manufacturing
  - ❑ Quality systems, techniques (e.g., Six Sigma)
  - ❑ Quality management (e.g., ISO 9000)

4.6. Which of the following state or federal government benefits does your company use? (*Check all that apply.*)

- ❑ R&D tax credit
- ❑ Investment tax credit
- ❑ Job credit
- ❑ Retraining tax credit
- ❑ Import/export credit
- ❑ Energy tax credit

4.7. How has your means of financing changed in the credit crisis? Please indicate whether you have used any of the following methods to finance your activities to a greater degree, same degree, or lesser degree **in the last year**.

	Change in Use of Financing Methods			
	Greater degree	Same degree	Less degree	Does not apply
Existing cash flow	❑	❑	❑	❑
Existing loans renewed, refinanced	❑	❑	❑	❑
New loans at less attractive terms (e.g., higher interest rates, shorter terms)	❑	❑	❑	❑
Asset-based financing (e.g., loans secured by accounts receivables, inventory)	❑	❑	❑	❑
Speeding up the collection process	❑	❑	❑	❑
Factoring (sales of accounts receivables)	❑	❑	❑	❑
Sourcing lower cost capacity	❑	❑	❑	❑
Sale or closure of part of the business	❑	❑	❑	❑
Merger with another business	❑	❑	❑	❑
Leasing	❑	❑	❑	❑

4.8. In the coming year, which of the following, if any, do you expect to do in response to the current economy?

- ❑ Reduce operational costs
- ❑ Look for tax advantages
- ❑ Increase capital investment
- ❑ Increase R&D
- ❑ Look for new customers
- ❑ Seek price reductions from suppliers
- ❑ Reduce labor
- ❑ Reduce production
- ❑ Seek business partners or investors
- ❑ Other (please specify): _____

4.9. Is your facility taking actions to respond to the U.S. move from the Generally Accepted Accounting Principles toward adopting the International Financial Reporting Standards or IFRS?

- ❑ Yes, taking actions now
- ❑ Not taking any actions
- ❑ Do not know / not aware of IFRS

5. WORKFORCE AND TRAINING

5.1. Please, answer for the years 2007 and 2009 about your workforce using exact numbers or estimates, **for this facility**.

	2009	**2007**
On average, how many employees worked at this location? (Include temporary workers and convert part-time and contract labor to full-time equivalents.)	Full-Time Equivalent Employees	Full-Time Equivalent Employees
What was your total payroll? (Please include direct payroll plus indirect fringe benefit payroll expenses. Include payments to agencies for temporary workers.)	Payroll $	Payroll $

5.2. Does the facility provide bonuses or other incentives to employees based on the following? *(Check if yes.)*

- ❑ New skills or education acquired
- ❑ Productivity increases
- ❑ New ideas suggested or implemented

5.3. On average in 2009, what percentage of your production workers used, at least once a day, as part of their job:

a. A computer or programmable controller?	%
b. The Internet?	%

5.4. In 2009, how many employees at this facility had at least the following training or educational qualifications:

	Number of Employees
a. High school graduate or GED?	
b. Two or more years of industrial-related training, through technical college, vocational school, or apprenticeship?	
c. Four-year college degrees (e.g., B.A., B.S.) with majors in science, engineering or information technology?	
d. Four-year college degrees (e.g., B.A., B.S.) with majors in other subjects (**not** science, engineering, or information technology)?	
e. Master's, Ph.D., or other graduate degrees with majors in science, engineering or information technology?	

5.5. How much did your company spend on all training activities in fiscal year 2009? $

Of this, approximately what percentage was related to new activities and tasks (i.e., not routine training)? %

5.6. What percentage of employees in production work are in teams (e.g., quality team, work cell)? *(If none, enter zero.)* %

6. BUSINESS ASSISTANCE RESOURCES

6.1. In the past 2 years, has your facility **received business assistance** from: *(Check all that apply.)*

- ❑ Georgia Tech (main campus or regional office)
- ❑ Kennesaw State University
- ❑ Other university (not Georgia Tech or Kennesaw State University))
- ❑ Small Business Development Centers (SBDC, provided by University of Georgia)
- ❑ Technical college (Technical College System of Georgia, Quick Start)
- ❑ Georgia Department of Labor's recruitment, labor market information, or welfare-to-work services
- ❑ Federal laboratory, NASA, or other federal technology program
- ❑ Other public or nonprofit business assistant source
- ❑ A private-sector business assistance source, such as a private consultant or vendor
- ❑ Another source not included in the above
- ❑ **Facility has not received outside business assistance**

6.2. Would **you or your managers** be interested in receiving training or technical assistance in any of the following areas? *(Check all that apply.)*

- ❑ Product design and development
- ❑ Technology implementation
- ❑ Marketing and sales growth
- ❑ Lean manufacturing and process improvement
- ❑ Supply chain development
- ❑ Quality systems, ISO 9000, TS 16949
- ❑ ISO 14000 environmental management certification
- ❑ Finance and taxes
- ❑ Safety and health, ergonomics
- ❑ Energy efficiency and management
- ❑ Materials and waste minimization
- ❑ Other topics *(please describe)*

_____

6.3. What new training programs would you like to have available to **non-managerial employees** at this facility? *(Check box if your company would benefit from training in a category even if is not currently available or provided.)*

- ❑ English speaking skills
- ❑ Reading, writing skills
- ❑ Basic math skills
- ❑ Technical skills (e.g., machinist)
- ❑ Product design and development
- ❑ Marketing skills
- ❑ Team and problem solving skills
- ❑ Quality, lean manufacturing
- ❑ Basic computer skills (e.g., keyboarding, word processing, e-mail)
- ❑ Advanced computer skills (e.g., database, Web design)
- ❑ Other topics *(please describe)*

_____

- ❑ Check here if facility does not need/would not use non-managerial training

Please check any of the following boxes if you would like to receive information about:

- ❑ Georgia Tech's industrial services, seminars, and workshops
- ❑ Kennesaw State University's services, seminars, and workshops
- ❑ Georgia Department of Labor's services, information, training
- ❑ Federal and state manufacturing tax incentives and credits
- ❑ Reducing indirect costs in the manufacturing and distribution process

(*No individual information besides contact information for the company will be transmitted.*)