



21 Years of Creating Jobs for New Yorkers
2007/2008 Report

February, 2009

**Our work has always been about creating and keeping good jobs for New Yorkers.
We do this by strengthening the companies that create the jobs.**

I AM OFTEN ASKED for a brief description of what ITAC does and why. I usually answer: “We help small and medium-sized manufacturing and technology firms start, stay and thrive in New York City so that they can provide good jobs for our residents.” As difficult as it has been to formulate this succinct response—the more difficult question is how? The answer is simple, but not easy. The best way to ensure good jobs for New Yorkers is to strengthen the companies that hire them. And, that has been ITAC’s mission.

I am pleased to present the Industrial & Technology Assistance Corporation’s Biennial Report covering fiscal years 2007 and 2008. Through education, training, consulting, and research, ITAC has spent the past 21 years helping manufacturing and technology firms thrive in New York City. Throughout our history, we have witnessed changes, both global and local: the rise of the Internet; the passing of NAFTA; 9/11, global warming; skyrocketing real estate costs; and increased foreign competition. To each of these challenges, we have responded with new tools and assistance programs designed to help our clients adapt skillfully while ferreting out fresh opportunities.

Clients who use our services report a trickle down effect. Progress in one area often leads to progress in another. Lean manufacturing, for example, can enable a company to maximize resources and increase capacity. They can use this capacity to expand their product lines or enter into new markets. Access to R&D funding and technical assistance can help a company develop and test a cutting edge product or process. Our FastTrac® program for entrepreneurs can then help them to commercialize it. The savings from a simple water assessment might lead a company to assess its energy consumption and then enact a recycling program, which might eventually lead them to develop a green product. In essence, we help our clients to work smarter and better, to become more innovative and more nimble and ultimately, to be stronger and more successful. And that translates into more jobs.

We are pleased to report that our work has been effective. In the past two years, we’ve helped 681 companies realize over \$385 million in impact, including both business impact (from sales and cost reduction) and economic development impact (from jobs and new investment). We are also proud to report that these figures have risen consistently throughout our history.

We could never have done this alone and we gratefully acknowledge the tremendous support we receive from our primary funding sponsors, the National Institute of Standards and Technology’s Manufacturing Extension Partnership (NIST/MEP), the New York State Foundation for Science, Technology and Innovation (NYSTAR®) and the New York City Council. We also appreciate our many business sponsors, associates, colleagues and friends. Finally, I am indebted to the entire ITAC staff, whose commitment, dedication and good humor have made this work both feasible and enjoyable. Thank you all!

Sincerely,



Sara P. Garretson
President

Introduction

ITAC WAS FOUNDED 21 YEARS AGO to help New York City manufacturing companies survive. Our aim has always been to help companies become more competitive by helping them adapt to change. Through the years we've adapted, too, and we now help entrepreneurs start and grow their businesses while being mindful of their impact on our environment. Through education, training and direct consulting we strive to strengthen these firms so that they will continue to create and retain better jobs for New Yorkers.

Today's competitive companies face multiple challenges. To succeed they must:

PRODUCE FASTER, BETTER, CHEAPER. Knowing how to maximize resources is critical to success. ITAC's process improvement programs help companies to "lean" their processes, reduce inventory and increase throughput without sacrificing quality. This enables an improved product, more satisfied customers, well trained employees and an increased capacity for growth.

PRACTICE SUSTAINABLE PRINCIPLES. *Reduce, reuse and recycle*, these are the basic tenets of sustainability. Our programs foster all three. Our water, waste and energy assessments help firms to discover the many ways they can begin their green journey and also benefit financially. Some have found revenue streams from recycled waste. Others have entered new markets with desirable green products.

USE SPACE EFFICIENTLY. Because New York City real estate is expensive, we have a program that helps companies to maximize every square foot of it. Funded by the New York City Council, our MoveSmart/StayLean program provides reconfiguration or relocation planning and decision making support. Sometimes we are able to reorganize space well enough to eliminate the need to move and at the same time increase productivity.

FOCUS ON GROWTH. A tight economy creates a strong desire for increased market share. ITAC is the National Institute for Standards and Technology's Manufacturing Extension Partnership (NIST/MEP) designated partner for New York City. NIST/MEP recently created two programs which we now offer to clients: Eureka! Winning Ways[®], a systematic method of creating and testing new ideas and New Product Development, which helps companies to launch new products. Through NIST/MEP and other partners, we also introduced ExporTech[®], to help companies accelerate their entry or expansion in foreign markets. ITAC collaborated with the Empire State Development Corporation, the US Department of Commerce's Harlem Export Assistance Center and the State University of New York's Levin Institute to introduce this valuable program.

INNOVATE. New York City entrepreneurs tap creativity and technology to develop cutting edge advances that create businesses and bring new products to market. We support the inventors, scientists, engineers, and designers whose innovations add value to products and services. We have been an official provider of the Ewing Marion Kauffman Foundation's FastTrac[®] entrepreneurship program for over 10 years. Our Virtual Incubator Program (VIP) gives startup companies the ability to grow and thrive. ITAC is also the Regional Technology Development Center for the New York State Foundation for Science, Technology and Innovation (NYSTAR[®]).

INVEST IN THEIR WORKFORCE. A well-trained workforce is critical to success. Workforce development has always been a critical component of our work. We help companies to identify core training needs, apply for New York City or New York State training grants, and we then deliver training in Lean manufacturing principles, supervisory skills, customer relations, quality systems and more recently, practicing sustainable principles.

Impact

ITAC GIVES COMPANIES THE TOOLS and resources they need to compete and to thrive. We help them to adopt best practices, learn new skills, maximize resources and build capacity for growth. When companies instill in their employees the mindset of continuous improvement, success is inevitable. Our work has enormous impact and is reported directly by clients to an independent third party. Our funders require us to report both business impact (from sales and cost reduction) and economic development impact (from jobs* and new investment). ITAC's also reports its success with sustainability projects, measured by how much tonnage is diverted from the landfill.

In fiscal years 2007 and 2008, ITAC clients reported \$385 million in impact as a result of our work.

\$ 215.4 million new and retained sales

\$43.4 million in new investment

\$46.5 million in reduced costs

1,662 new and retained jobs

12,687 tons diverted from the landfill

***Every \$2, 677 of government investment results in a job.**

How ITAC Helps

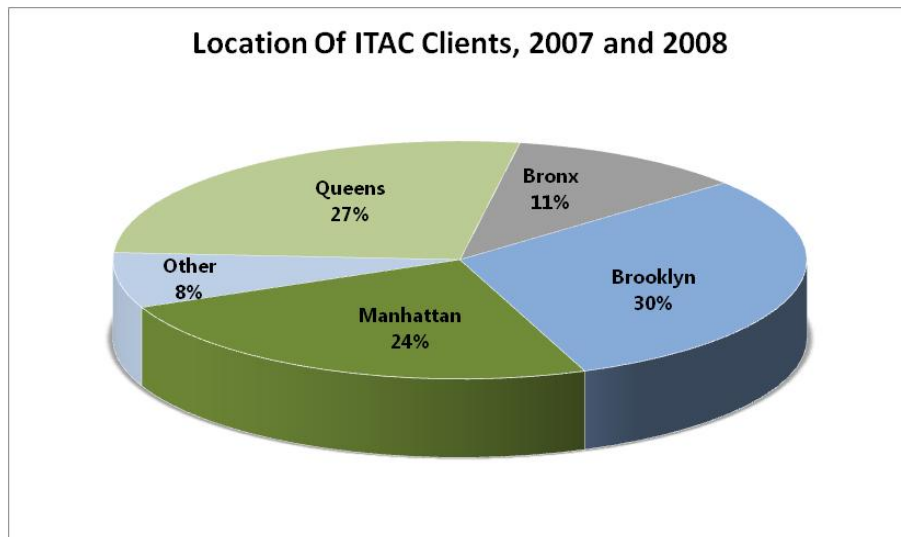
The best insurance against job loss is a healthy economy and ITAC supports the economy by helping companies succeed.

Different companies need different things in order to remain competitive: capital to turn an innovative idea into a marketable product; process improvements to speed throughput; technology to produce green energy; smarter ways to grow; better ways to use space; more effective ways to hire, train and keep employees. The list is endless. Regardless of what's required, ITAC can draw upon its experienced staff, its programs and its network of resources to provide a solution.

Though companies and their needs may differ, our clients have one thing in common. They want to succeed and when they work with us they do. And we know this because they report it to an independent third party as increased sales, reduced costs, greater customer satisfaction, a cleaner work environment and more capable employees. Perhaps most importantly, we've given them the capacity to grow by providing the necessary tools and resources so that they can continue to progress. And that's the best news because it means we've helped to ensure our city's future.

Stronger companies mean better jobs and better jobs are the surest sign of a strong and healthy economy.

Transforming Companies. Creating Jobs.



Lean Manufacturing

Improving Processes, Reducing Costs



LEAN PRINCIPLES ARE PROVEN TO WORK and our staff's outstanding experience with Lean manufacturing makes it one of our strongest programs. After 20 years of success, ITAC continues to deliver Lean programs to help companies to incorporate continuous improvement and create systemic change in order to reduce costs, improve quality and enable faster delivery time.

ITAC offers its introductory one-day Lean 101 workshop frequently and participating companies experience the benefits

of Lean firsthand. In a series of timed simulations, companies learn how different workflows impact the speed of their output as well as the quality of their work. As members of the "ITAC Toy Company," they form small competing groups and are asked to produce a toy boat. They face everyday challenges, such as increases in orders, cumbersome layouts, quality control and excess inventory. Each simulation demonstrates another Lean principle and as the day progresses, each company's output is measured.

Through discussion and instruction, the class learns how to improve. After each simulation, productivity increases, costs are reduced, and a higher level of quality is achieved.

This one-day workshop is often an eye-opening experience for participants, regardless of their role in the firm. Many leave with a desire to learn more about Lean and a strong commitment to incorporate Lean principles and its mindset of "continuous improvement" into their company culture. Those who do are rewarded with healthier bottom lines and happier employees. Lean 101 is just the beginning. Companies that adopt the many other Lean principles and integrate Lean into their organization empower employees to engage in cost reduction strategies across the entire company.

Company Highlight

FJ Gray Glass

FJ Gray Glass is among the world's leading custom glass suppliers and glass fabricators offering architectural glass, scientific glassware and industrial precision glass. The company has 50 employees in their state-of-the-art, 65,000 sq ft facility in Queens. ITAC has been working with FJ Gray Glass for the last five years on a number of productivity, workforce and growth projects designed to improve their lead time, enhance quality, enable better profit margins and increase market share. In 2008 ITAC helped them to apply for a New York City Small Business Services grant to train their staff in Lean principles, improving their skills and enhancing production capacity. FJ Gray reported that in a three year period, their sales had doubled as a result of working with ITAC and they plan to continue working with us in order to become even more competitive in global markets.

In fiscal years 2007 and 2008, ITAC clients reported \$254.1 million in impact from Lean projects.

Lean and Green Practices

Reducing Costs, Improving the Environment



AT THE FOREFRONT of the green movement, ITAC has been helping companies with waste reduction, pollution prevention and energy conservation for well over a decade. Our hope is that increasing demand for less toxic, more renewable products and processes will pave the way for a revitalized local economy. Sustainability is a key offering at ITAC and is rapidly becoming a best practice.

Green, like Lean, is a mindset that often leads to other improvements. Sometimes a simple waste or water assessment opens the door to a whole new way of operating—one that is both greener and leaner. Savvy manufacturers understand that protecting the environment can also be cost effective.

Company Highlight Fay Da Manufacturing

Our work with Fay Da shows how a simple water assessment led to cost savings and then to other projects that are making the company more profitable. Fay Da produces tasty Chinese baked goods and keeps approximately 70 employees bustling at its manufacturing plant in Brooklyn. They also own and operate ten retail outlets in Queens, Manhattan and Brooklyn. Bakeries use a great deal of water in their processes and incur charges for the amount of waste water they generate. Often companies are unaware of government incentives that reduce charges if water is diverted from the waste stream or how to reduce usage and apply for the incentive. ITAC's water assessment at Fay Da's enabled them to reduce consumption and water waste significantly. We then helped them apply for and receive this valuable refund on water charges.

Fay Da continues to work with ITAC to incorporate other cost reduction strategies. Through our MoveSmart program, they learned about Lean workflows. We also helped them to create an optimal layout for their new facility and gain significant energy savings through conservation and the use of more energy efficient equipment.

Kellen Chow, Vice President, explains how Lean helps: "Lean makes you think and act and I am training my workers to use it each day. We are more efficient now and the Lean training helped us improve our productivity. My employees are happier, too, because they don't have to work as hard to get the same results."

Fay Da practices Lean and green principles as a result of its work with ITAC. They have reduced their carbon footprint as well as their costs. The environment and the company will reap rewards for generations.

In fiscal years 2007 and 2008, 131 companies reported \$10.6 million in impact from 194 sustainability projects conducted with ITAC.

MoveSmart/StayLean

Maximizing Use of Space, Building Capacity



ITAC continues to help companies utilize their space more effectively. Our New York City Council-funded MoveSmart/StayLean program is structured to provide city companies with the support they need to create and execute a successful facility plan, whether they are relocating, expanding, consolidating or trying to stay where they are.

Since the program's inception in 2006, 55 companies employing 2,640 workers have benefited from MoveSmart's services. Six companies improved their space utilization by approximately 31,600 sq ft (an average contraction of 5,000 sq ft each). At about \$12 per sq ft for industrial space, the work yields an annual savings of \$379,200 or \$63,200 per company each year in real estate costs alone. Our more recent clients are enjoying considerable successes already and the benefits will continue with time.

Company Highlight

Remains Lighting

Remains Lighting manufactures high end traditional lighting and restores antique lighting. With a showroom and design space in Manhattan, their primary manufacturing took place in a 10,000 sq ft facility upstate. To meet their growth demands, Remains decided to move their production facility to Brooklyn, New York and used ITAC's MoveSmart program to plan their relocation. They purchased an 18,000 sq ft facility in Brooklyn, initially importing some 40 jobs into the borough. ITAC designed a layout emphasizing workplace organization, materials handling and efficient flow that allowed Remains to reduce each workstation by 40%. This enables the company to add more workers, which they anticipate they will need given their current level of growth. Combining the design and engineering departments with the production department also created great synergy. Moreover, their new understanding of Lean principles has led to increased productivity and reduced delivery time.

Remains Antique Lighting understands the advantages of working with a partner like ITAC and is able to leverage what we have to offer. Initially, the company came to us for relocation assistance and, through MoveSmart, we were able to facilitate their relocation and maximize the use of their new floor space. They are learning to incorporate Lean manufacturing workflow and process improvements, which will yield tremendous cost benefits.

Since 2006, ITAC has assisted 55 MoveSmart companies, employing 2,640 workers. Each company saved an average of \$63,200 per year, in real estate costs alone.

Growing NYC Companies

Building Capacity, Increasing Growth Potential

Yes, New York City manufacturers have been growing by developing new products and entering new markets. ITAC helps them prepare for growth with programs that help them obtain enough capital, build a solid infrastructure, develop strong management skills, increase marketing and sales capabilities, and utilize proven methods to achieve growth goals. In 2006, we undertook several new growth initiatives that we offered to our clients.

Through the Manufacturing Extension Partnership (MEP), ITAC drew over 100 companies to hear the country's top growth coach and inventor, Doug Hall, speak about innovation. We soon launched a version of his world class methodology for growth — Eureka! Winning Ways® — customized for smaller firms. With funding from MEP, the New York State Economic Development Corporation, the US Department of Commerce's Harlem Export Assistance Center and the State University of New York's Levin Institute, ITAC successfully introduced ExporTech®, a program to help companies accelerate their entry or expansion into international markets. ITAC's Entrepreneurs in Residence and Professional Business Advisor (PBA) programs offer CEOs individual mentoring and coaching to help them navigate growth challenges. Access to an experienced, yet neutral, business professional with whom to discuss pressing challenges or bounce around new ideas has been an essential element of success for many clients.

Company Highlight

Tri Component



Tri Component is a Bronx-based manufacturer of automobile parts that employs 75 people and exports to over 25 countries. After implementing our organizational recommendations, this company has turned its business situation around and is undergoing growth. With ITAC's assistance, the company became ISO 9001 certified, which enabled them to expand overseas. In order to meet new demand, ITAC is now working with the company to lean their processes, and to obtain additional ISO certifications which will enable them to enter new markets. Tri Component reports its fastest growth ever with almost \$7 million in financial impact last year.

In fiscal year 2007 and 2008, ITAC clients reported \$87.9 million in impact as a result of our growth projects.

Converting Ideas into Jobs

Commercializing Technology, Creating New Businesses



ITAC helps entrepreneurs, technology innovators, and next generation manufacturers interested in taking their businesses to the next level. We embrace and nurture these firms because we understand the complex but vital role that technology plays in making New York City a world class innovation center.

ITAC partners with universities, R&D centers, technology incubators, investors and government entities because each is important

in fostering the success of these high growth potential companies. We bring these assets to our clients and offer them unparalleled opportunities to develop, test, refine and commercialize their cutting edge technologies.

ITAC has been an official provider of the Ewing Marion Kauffman Foundation's FastTrac[®] entrepreneurship program for over 10 years. Our customized FastTrac[®] program adds value with access to an unparalleled network of resources and expertise. We help companies to build business skills as well as confidence. We watch them grow and introduce them to early customers and partners. We help them to gain access to capital. Over the past 10 years, over 300 companies have completed FastTrac program. Our FastTrac[®] Master Class moves companies well beyond startup and our Virtual Incubator Program (VIP) provides early stage entrepreneurs with the means to survive in an increasingly competitive marketplace.

Company Highlight:

Gaia Power Technologies

Founded in 2002, Gaia Power Technologies, Inc. provides turnkey distributed energy management and storage systems designed to reduce utility bills. Initially Gaia offered homeowners and small businesses an alternative to generators for backup power, selling mainly to high-end residential and small commercial users in the New York City area.

ITAC began working with this green energy company through our customized FastTrac[®] entrepreneurial boot camp in 2003. We helped Gaia to remain profitable in its early years by helping it to apply and receive a \$ 2 million dollar R&D grant. Later, we helped Gaia to raise \$3.75 million in capital from private investors in a highly competitive arena. ITAC also introduced Gaia to a large utility that helped to launch the company into the green energy space and gave it the leverage it needed to become a supplier for the nation's electric power grid. Since 2002, Gaia has added 11 New York City jobs.

Since 2002, ITAC has delivered its FastTrac[®] program to 180 companies that have reported a total impact of \$34.3 million.

Training for a better future

Increasing Knowledge, Developing Strength



Workforce development has always been an important focus for ITAC, but as the economy falters and job availability becomes an issue, workforce training is moving to the forefront of ITAC's mission. Smart companies make a long term investment in their workforce and our training helps. ITAC offers training in Lean, quality control, customer relations and supervisory skill. More recently, we've incorporated training in sustainability awareness. In addition to years of experience, another advantage of working with

ITAC is that we can also help companies apply for government training grants to defray a portion of their training costs.

Workforce development helps companies become more profitable and provides a solid foundation for growth. A well trained workforce helps a company decrease turnover rates, create a stable working environment, increase productivity and ultimately, reduce costs. Training helps employees by increasing skills that are portable which is good for the business but also good for the economy.

Company Highlight

Visual Graphics Systems

Visual Graphics Systems (VGS) manufactures signage and sign systems for major corporate clients. Their experience in designing, fabricating, and installing visual communication systems makes them more of a marketing partner to their customers. VGS employs 125 workers in its Manhattan manufacturing facility and has been in business for over 20 years.

We began working with VGS in 1997. Our primary focus has been workforce development. Hiring largely from within, VGS asked ITAC to train its managers in order to transition them successfully into new roles and responsibilities. We've delivered training to VGS and provided assistance on a number of human resources projects, including recruiting, supervisory training and, more recently, sustainability awareness.

Interestingly, training in sustainability awareness became the impetus for VGS to launch a new line of products. Over several weeks, we held a series of workshops onsite, giving employees homework assignments in between that challenged them to devise ways to make their workplace more sustainable. With energy and imagination they collaborated on several new ideas that led VGS to develop and launch a new green product line in six weeks! The training generated excitement and a sense of pride among employees when they discovered that simple changes on their part could have an enormous impact on the environment and also help to make their company more profitable.

In fiscal years 2007 and 2008, ITAC trained 1,826 employees at 157 companies. Clients reported \$27.1 million in impact as a result of these training projects.

ITAC Financial Statement for Fiscal Years 2007 and 2008

| Income | 2007 | 2008 |
|--------------------------------|--------------------|--------------------|
| Federal | \$1,126,404 | \$1,165,607 |
| New York State | \$1,235,132 | \$1,378,662 |
| New York City | \$652,268 | \$587,480 |
| Program Revenue | \$1,083,252 | \$967,390 |
| Private Sector | \$238,724 | \$161,469 |
| <hr/> | | |
| Total Income | \$4,335,781 | \$4,260,607 |
| | | |
| Expenses | | |
| Salaries | \$2,753,281 | \$2,835,414 |
| Program- Non Personnel | \$1,267,210 | \$1,188,536 |
| Administrative - Non Personnel | \$168,622 | \$173,573 |
| Fundraising - Non Personnel | \$6,505 | \$5,692 |
| <hr/> | | |
| Total Expenses | \$4,195,618 | \$4,203,215 |
| | | |
| Income Less Expenses | \$140,163 | \$57,392 |

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New York State Foundation for Science, Technology and Innovation (NYSTAR®)*

US Department of Commerce National Institute of Science and Technology's Manufacturing Extension Partnership (NIST/MEP)**

Empire State Development Corporation

New York City Council

New York City Department of Small Business Services

New York State Department of Labor/Workforce Development and Training Division

* ITAC is the designated Regional Technology Development Center for NYSTAR®

** ITAC is the designated NIST/MEP Regional Center for New York City

