

TECHNICAL ASSISTANCE PROGRAM

Engaging with Indiana business to build our economic future



A Year in Review

July 2003 — June 2004

OUR MISSION: INDIANA'S

In order to be one of America's preeminent universities, Purdue must be a strong economic partner with the state of Indiana. Among our highest priorities are the improvement of the business climate, the creation of jobs, the nurturing of new businesses, and the support of existing firms.

Purdue's Technical Assistance Program has been a valuable and trusted friend to Indiana entrepreneurs for more than 18 years, and its impact continues to grow. The companies it has helped since 1986 credit TAP with some \$296 million in increased sales, \$63 million in increased capital investment, and the creation or preservation of 4,100 jobs for Indiana workers.

In the past year alone, TAP has provided services to 458 companies in 63 of Indiana's 92 counties. The program's High Tech Job Fair connected 51 employers with 1,000 Purdue students.



During his internship at Aircom Manufacturing Inc., Daniel Parrott worked as a computer support specialist. Parrott, shown in the center, is a computer and information technology student at IUPUI. He is conferring with Ed Sullivan, clinical assistant professor of computer and information technology at IUPUI, pictured on left; and, on the right, Jon Hall, Aircom information systems manager.



The program has been especially effective in serving the state's key core business sectors: manufacturing – where more than two-thirds of its services were delivered – life sciences, and information technology.

Every business with which TAP has worked has been helped, and many have experienced dramatic improvements. By connecting the business community to the expertise and vast resources at Purdue, TAP can greatly improve the competitive positions of individual firms, as well as Indiana's ability to succeed in the global market.

By investing in TAP in 1986, our state made a wise decision that will keep paying dividends for many years to come. I believe there will be even greater opportunities in the future, and we look forward to finding ways to increase the ability of this program to serve the businesses and the people of Indiana.

A handwritten signature in black ink that reads "Martin C. Jischke". The signature is written in a cursive style.

Martin C. Jischke

President, Purdue University

www.purdue.edu/TAP

GROWTH AND PROSPERITY

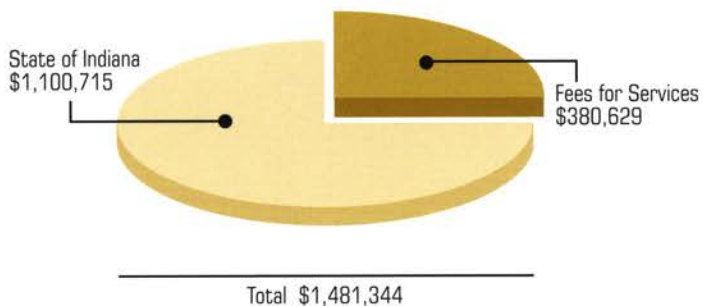
The Technical Assistance Program connects
 Indiana businesses and local governments
 with the vast resources of Purdue University.

Our mission: To strengthen the Indiana
 economy and improve the quality of life for
 all Indiana citizens.

TAP's achievements include:

- Helping stem the "brain drain" by increasing the placement of Purdue graduates in Indiana businesses.
- Strengthening the competitiveness of Indiana businesses by assisting them in implementing state-of-the-art technologies.
- Improving and protecting Indiana's environment by working with industry and wastewater treatment plants on pollution prevention and operational efficiency.

TAP FUNDING SOURCES, 2003-04



Economic Impact Data

May 1986-June 2004

Since 1986, TAP has made a significant impact on Indiana business. A total of **5,758 projects** have been completed with partner companies. The results of TAP's work include:

COMPANIES SERVED



TAP faculty, graduate students, and staff worked with **458 companies** in 2003-04.

SAVINGS AND INVESTMENTS*

Capital Investments	\$63 million
Cost Savings	\$28 million
Increased Sales	\$296 million

EMPLOYMENT*

Jobs Added	1,556
Jobs Saved	2,560

*Data based on client evaluations of TAP assistance

EXPERT ADVICE FOR INDIANA

Each year, the Technical Assistance Program provides free, confidential consulting services for hundreds of Indiana companies, local governments, and nonprofit organizations. The success stories on these pages give a few highlights from the 381 assistance projects completed in 2003-04.

Since **1986**, TAP has completed more than **5,700** assistance projects.

Griffin Analytical Technologies, Inc. West Lafayette

COMPANY Griffin Analytical Technologies is leveraging technology developed in Purdue University's top-ranked analytical chemistry department. Griffin has launched an ambitious plan to commercialize its first product, the Miniaturized Mass Spectrometer (MMS). The MMS is a small chemical analyzer that shifts the logistics paradigm from sample-to-lab analysis to lab-to-sample analysis. Mass spectrometry provides chemical information for many markets including academic research, pharmaceutical, biotechnological, environmental, consumer product, and petroleum industries. Griffin is focused on expanding mass spectrometry into the areas of defense and homeland security.

CHALLENGE Griffin, a startup company, approached TAP for help with the valuation of the company during Series A round funding.

ACTION TAP introduced Griffin to Charlene Sullivan, associate professor in the Krannert School of Management, and Dylan Zhou, graduate student. The team used accepted techniques to determine the value of the company's technology.

RESULTS The Purdue team's work helped Griffin Analytical with a successful negotiation of Series A financing. This resulted in \$2.2 million in investments for the company.



"Working through TAP experts, Griffin was able to obtain a corporate valuation that was instrumental in finalizing our Series A financing. The TAP project certainly proved to be a value-added experience for Griffin."

DENNIS BARKET JR. (pictured at left)
Founder and President
Griffin Analytical Technologies

BUSINESSES

Indiana Fish and Wildlife, Avoca

COMPANY Indiana Department of Natural Resources, Division of Fish and Wildlife, Southern Fisheries Research at Avoca, Indiana.

CHALLENGE Fisheries research biologist Robert Ball (at right) needed help determining the most cost-effective means of conducting a user count on the Wabash River – whether by boat or by air. He asked TAP to analyze previous surveys to determine if the cost of flight counts was justifiable.

ACTION TAP put Ball in touch with Regina Becker, manager of Statistical Consulting, and graduate student Craig Johnson, Statistical Consulting, who compared data gathered in the previous study, determined the accuracy of the flight counts, and made recommendations about the flight count validity and the other procedures used in the surveys.

RESULTS With TAP's help, Ball determined that user counts obtained by air were not worth the expense. By dropping that method of obtaining data, the division was able to save a considerable amount of money.



"With TAP's help, we obtained a timely analysis of data and were able to make changes in the Wabash survey that saved the Division of Fish and Wildlife \$115,000."

ROBERT BALL
Fisheries Research Biologist,
Southern Fisheries Research,
Indiana Department of Natural
Resources, Division of Fish and
Wildlife

Crane Division, Naval Surface Warfare Center (NSWC Crane)

COMPANY NSWC Crane in southwest Indiana is a multi-mission, multi-service product center with both a fleet support and an industrial base mission. It employs over 3,200 military and civilian personnel.

CHALLENGE NSWC Crane sought to reduce the cost of naval components by improved processing techniques.

ACTION A Crane project engineer contacted TAP with questions about two components supplied to the Navy and supplied samples of the metal components to TAP for analysis and recommendation. TAP put Crane in touch with Mysore Dayananda, professor of materials engineering, who performed microstructure analyses that have been used to implement processing cost reductions.

RESULTS The analysis carried out by Dayananda has led NSWC Crane to realize cost savings of \$25,000.



Mysore Dayananda, professor of materials engineering, at left, confers with Eric Sheid, project engineer for Naval Surface Warfare Center, Crane Division.

EXPERTISE FOR ANY NEED

TAP provides up to five days of free consulting on the full range of technical issues, including:

Advanced Manufacturing

- Lean manufacturing
- Facility planning
- Process improvements
- Quality systems
- Environmental issues

Business Management

- Growth strategies
- Financial evaluation
- Costing systems
- Marketing options

Information Technology

- Networking, programming, and parallel processing
- Hardware, software, and ISP assessments
- Broadband infrastructure for communities
- Management of the information technology function

Product Development and Engineering*

- Design input and review
- Design methods
- Problem solving
- Product evaluation

*TAP does not support projects involving litigation. Projects involving the development of intellectual property require written contracts.

CULTIVATING INDIANA'S

**TAP is committed to helping
Indiana employers connect with
Purdue's talented, hardworking,
and highly skilled student
body — and to making
Purdue students aware
of the many career
opportunities available
right here in Indiana.**

■ HIGH TECH JOB FAIR FOR INDIANA COMPANIES

At TAP's annual job fair, Indiana employers meet hundreds of Purdue students studying technology, engineering, management, science, and agriculture. Approximately 1,000 undergraduate and graduate students and 51 businesses attended the 2003 job fair.



Best Access Systems in Indianapolis manufactures and distributes mechanical and electronic access control products. It is part of Stanley Security Solutions, the security division of The Stanley Works. Through the High Tech Job Fair, Best has hired several Purdue graduates and co-op students, such as Tyler Back (BSME '03), pictured at left.

"Purdue has a reputation for turning out highly qualified engineers. The engineers at Best play a crucial role in our success, and we have found that the candidates we meet at Purdue can often meet our needs."

CINDY MINER
Human Resources Manager, Corporate Services
Best Access Systems, Indianapolis

2003 JOB FAIR DATA

Businesses in attendance	51
Students in attendance	1,000

ADDITIONAL STUDENT RECRUITMENT RESOURCES

Purdue Center for Career Opportunities
Phone: (765) 494-3981
www.cco.purdue.edu

HIGH TECH JOB FAIR DATES

October 27, 2004

October 26, 2005

October 25, 2006

www.purdue.edu/jobfair

TALENT BASE

■ SUMMER INTERN PROGRAM

Through the Summer Intern Program, TAP helps Indiana companies connect with innovative, technically savvy, and cost-effective assistance for summer projects. The intern program is also a great way to find future employees.

Hill's Pet Nutrition, Richmond

During her internship with Hill's Pet Nutrition, Tiffany Spann developed programs for a packaging palletizer and dehumidifier sensors; created a Total Energy Motor log in Excel; developed an equipment database in Access; and created process picture maps for a variety of equipment.

"Tiffany assisted the plant Technical System Team in delivering several plant improvement projects in the areas of process controls, document controls, and in the development of training materials. She is a team player and fits well in the plant culture."

PETER THAWNGHMUNG
Technical Systems Manager
Hill's Pet Nutrition



"During my internship, I learned that it takes more than just engineering to make a successful product."

TIFFANY SPANN
Electrical Engineering
Technology

Also pictured (at right):
Zoe Bassey, Mechanical
Engineering

Lawson-Fisher Associates, South Bend

At the civil engineering consulting firm of Lawson-Fisher, interns Kim Boner and Scott Richmond assisted in a variety of projects. Their work included field surveying, structural design and quantity calculations on INDOT bridge projects, water quality sampling, and more.

"The significant impact of the Purdue interns is in their overall effort. They are generally conscientious, well focused, team oriented, amenable to taking direction, well founded in engineering fundamentals, eager to contribute, and enjoyable to work with."

DANIEL R. LAWSON
President
Lawson-Fisher Associates



"My internship taught me many things related to the technical side of bridge design. I also learned a great deal about professionalism in the office, organization and documentation of our work, and about the life-cycle of a design project and how it is managed."

SCOTT RICHMOND
Civil Engineering

Also pictured: Kim Boner,
Civil Engineering

2004 SUMMER INTERN DATA

Participating businesses	34
Participating students	47

PURDUE UNIVERSITY: A COMPLETE RESOURCE

One of the goals set forth in Purdue University's strategic plan is for the University to focus on engagement activities that match Purdue expertise and resources with statewide needs. These partnerships will then grow the state's economy and improve the quality of life for Indiana citizens. Purdue's economic development partnerships include:

Office for Continuing Education and Conferences

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Purdue Statewide Technology

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www.tech.purdue.edu

Purdue Research Park

Greg Deason, Vice President of Development
gwdeason@purdue-researchfoundation.org (765) 494-8572
www.purdue-researchpark.com

Purdue Extension

David Petritz, Director
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Technical Information Service

Suzanne Ward, Manager
ward@purdue.edu (765) 494-9876
www.purdue.edu/TIS

Indiana Clean Manufacturing Technology and Safe Materials Institute

Lynn Corson, Director
corson@purdue.edu (765) 463-4749
www.ecn.purdue.edu/CMTI

Office of Technology Commercialization

Simran Trana, Acting Director
strana@purdue-researchfoundation.org (765) 494-6725
www.otc.purdue.edu

Discovery Park

Charles Rutledge, Director
chpr@purdue.edu (765) 494-7766
http://discoverypark.e-enterprise.purdue.edu

High Tech Job Fair for Indiana Companies

David McKinnis
hightech@purdue.edu (765) 494-6258
www.purdue.edu/jobfair

A complete listing of Purdue career fairs is available at:
<http://www.cco.purdue.edu/CareerFairCalendar.shtml>



Purdue Office of Engagement

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