TECHNICAL ASSISTANCE PROGRAM

A Year in Review

July 2001-June 2002

Engaging with Indiana business to build our economic future
One of the keys to Purdue’s efforts to achieve preeminence among American universities is our effort to engage Indiana’s business community. The Technical Assistance Program is at the heart of that effort. Working with the advanced manufacturing, information technology, and life sciences business sectors, TAP has had a tremendously positive effect on the state’s economy.

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 a firm’s ability to compete and succeed in the global market.

The numbers are impressive. Each year, TAP engages 200 faculty, staff, and students with Indiana companies. Since its establishment in 1986, TAP has worked with 5,000 companies, bringing about millions of dollars in sales increases and cost savings while creating thousands of new jobs. The High Tech Job Fair, which TAP conducts for Indiana companies, has significantly increased the number of Purdue graduates who accept jobs with firms in our state.

Purdue is extremely proud of this highly successful effort, and we believe providing funds for an expanded TAP is one of the best things our state could do for itself. I intend to work hard to bring about this expansion in the future.

Martin C. Jischke
President, Purdue University
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, 2001-02**

- State of Indiana: $1,173,004
- Fees for Services: $420,921

Total: $1,593,925

**Economic Impact Data**

May 1986-June 2002

Since 1986, TAP has made a huge impact on Indiana businesses. The results of TAP's work include:

**Assistance Projects Completed**

- TAP faculty, graduate students, and staff are available from two Purdue campuses.
- Total projects: 5,057

**Savings and Investments**

- Capital Investments: $61 million
- Cost Savings: $26 million
- Increased Sales: $286 million

**Employment**

- Jobs Added: 1,452
- Jobs Saved: 2,439

*Data based on client evaluations of TAP assistance*
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 296 assistance projects completed in 2001-02.

Since 1986, TAP has completed more than 5,000 assistance projects.

American Window and Glass

Seeing clearly now

COMPANY American Window and Glass, Inc., Evansville

Founded in 1988, American Window and Glass is a fabricator of high-quality vinyl window and door products for the residential market. It employs more than 140 associates.

CHALLENGE The rapid growth of vinyl windows in the residential market has increased the need for competitiveness and efficiency in the production process. In search of a fresh view from an objective perspective, General Manager Jeff Wigington contacted TAP.

ACTION TAP connected Jeff with Regina Becker, manager of Purdue's Statistical Consulting Service. She and graduate students Nels Grevestad and Ryan Wiegand spent a full day meeting with the entire management team of American Window and Glass and touring the production lines. The Purdue team subsequently made detailed recommendations based on their discussions and observations.

RESULTS The recommendations made by Regina and her staff for one line alone are expected to save at least 25 percent in the manufacture of one part. Within the next year, the company expects to cut losses by five to fifteen percent.
Solid products, solid profits

Company Keihin IPT (KIPT), Greenfield (www.ipt-inc.com)

Founded in 1988, KIPT manufactures intake manifolds and fuel injection systems. KIPT is the parent company of three strategic business units in Greenfield and Muncie, Indiana, and Tarboro, North Carolina.

Challenge KIPT contacted the Technical Assistance Program to request Purdue assistance with studying an aluminum casting defect and identifying the source and type of porosity that was occurring.

Action Using microstructural analysis, graduate student Fuhong Zhang and Professor Mysore Dayananda of the School of Materials Engineering identified the specific type of porosity as well as the probable causes of the defect.

Results The Purdue information enabled KIPT to improve temperature control and solidification, significantly reducing the defect. The KIPT team learned more about the microstructural characteristics of the metal, while the Purdue team gained insight into process improvements.

Shelby County Fiber Optic Board

Strategically wired

Community Shelby County and the city of Shelbyville, located 30 miles southeast of Indianapolis, have a population of approximately 43,500.

Challenge An agreement with fiber-optic provider Metro Xmit made an extensive fiber optic network available to the community. City, county, and business leaders formed the Fiber Optic Board to evaluate its use. The board requested TAP assistance in determining how to use this resource in the best interest of local businesses, residents, schools, and governments.

Action TAP connected the Fiber Optic Board with Jim Goldman, professor and associate head of the Department of Computer Technology. Jim developed a strategic plan to guide the county's use and implementation of the fiber-optic network.

Results One of the first applications of the new high-speed Internet connectivity is a regional health care informatics system, which will provide storage and distribution of medical images to health care providers.

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 management
  - 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
  - Rapid prototyping
  - Design method selection
  - Problem solving
  - Product evaluation and testing

* TAP does not support projects involving litigation or projects geared toward developing patented technologies. Contact us for expert referrals.

www.purdue.edu/TAP (765) 494-6258
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 1,600 undergraduate and graduate students and 56 businesses attended the 2001 job fair.

InfoDynamics, an Indianapolis software development company, hired two 2002 Purdue graduates through the High Tech Job Fair. Brad Stayte, whose degree is in computer technology, was hired as a programmer/analyst. Summer King, a management graduate, will work in marketing for the company.

"The High Tech Job Fair gives Indiana companies a chance to meet face-to-face with Purdue students who have taken the time to find out what your company is about. I was impressed at the turnout of students and the professional atmosphere that Purdue provided."

CHRISTOPHER L. LUPTON
President, InfoDynamics, Inc.
www.infoD.com

**2001 JOB FAIR DATA**

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<thead>
<tr>
<th>Category</th>
<th>Quantity</th>
</tr>
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<tbody>
<tr>
<td>Businesses in attendance</td>
<td>56</td>
</tr>
<tr>
<td>Students in attendance</td>
<td>1,600</td>
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</tbody>
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**FUTURE JOB FAIR DATES**

- **October 29, 2003**
- **October 27, 2004**

**ADDITIONAL STUDENT RECRUITMENT RESOURCES**

Purdue Center for Career Opportunities
Phone: (765) 494-3981
www.cca.purdue.edu
careersINsite
Phone: (317) 275-2080
www.careersINsite.com

www.purdue.edu/jobfair
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.

Essroc Cement, Speed

www.essroc.com

Intern Norris Hulbert supported the maintenance department of this complex, 24-hour cement manufacturing facility. Projects she completed included a database of AutoCAD drawings, quick reference documents for the electrical department, and monthly reliability reports.

"The Summer Intern Program allowed us to get needed work done that our personnel were unable to handle due to time constraints. Many of the items that Norris worked on will help us reduce time spent on projects in the future and become more efficient."

STEVEN K. MILLER
Administrative Manager, Essroc Cement

Chester ABI Services Division, Francesville

www.chester.com

Development and installation of irrigation and grain handling equipment were among the duties that intern David Szabela performed for Chester ABI Services.

"I was completely satisfied with Dave Szabela's work as an intern. His attitude and work ethic were his most outstanding traits. In retrospect I wish I had hired more than Dave! I would recommend TAP to anyone."

DEB MROZINSKI
Division Manager, Chester, Inc.

2002 SUMMER INTERN DATA

<table>
<thead>
<tr>
<th>Participating businesses</th>
<th>29</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participating students</td>
<td>39</td>
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</table>

"During my internship, I learned a great deal about the importance of organization and communication within a manufacturing company. I believe my assistance this summer will ultimately lead to increased organization of the company's plans and goals."

NORRIS HULBERT
Senior, mechanical engineering technology

"I appreciate my internship with Chester not only for the experience I gained, but also for the chance to meet great people who took the time to teach me new ideas and concepts. I really enjoyed the work, and this helped me work harder and increased my desire to take advantage of all the opportunities that were offered to me."

DAVID SZABELA
Senior, agricultural engineering
Don K. Gentry, vice provost for engagement, is leading Purdue's efforts to form partnerships with Indiana businesses, leaders, and citizens.

(765) 494-9095

- Connect Indiana
  Discover the full range of Purdue resources through a single point of access.
  www.purdue.edu/ConnectIndiana

- Indianapolis Office of Engagement
  Provides a central point of contact between Purdue and Indianapolis business, education, government, and other enterprises.
  Thomas Carroll, Director
  (317) 275-9301

- Purdue Gateways Program
  Provides many resources for high-tech startup businesses, including Purdue Research Park facilities.
  (765) 496-6246
  www.purdue.edu/Research/PRF/Gateway.htm

- Office for Continuing Education and Conferences
  Offers professional development opportunities on campus, off campus, and via distance learning.
  (765) 494-7231 or (800) 359-2968
  www.cael.purdue.edu

- Technical Information Service
  Looking for articles, books, or other published research materials? TAP's affiliate program, the Technical Information Service, annually delivers thousands of documents and conducts hundreds of searches for technical, scientific, and management information.
  (765) 494-9876
  www.purdue.edu/tis

- Subscribe to TAP's e-newsletter
  www.purdue.edu/TAP/update

- TECHNICAL ASSISTANCE PROGRAM
  David McKinnis, Director and Associate Vice Provost for Engagement
  Purdue University
  1435 Win Hentschel Boulevard, Suite B-110
  West Lafayette, IN 47906-4152
  Phone: (765) 494-6258
  Fax: (765) 494-9187
  E-mail: tap@purdue.edu

  www.purdue.edu/TAP