PACESETTER

News From the Office of Technology Policy ■ Winter 1998

Secretary Daley Hosts Seattle IT Town Hall Meeting

GOVERNOR LOCKE PROPOSES $25 MILLION FOR WASHINGTON STATE INFO TECH ED

Making good on a promise made last January at a UC Berkeley press conference, Secretary William M. Daley hosted another in a series of regional information technology town meetings. Bellevue Community College (BCC) played host to the August 18, public forum.

BCC President, Jean Floten greeted the audience of nearly 300 guests and introduced several important keynote speakers including Secretary Daley, Washington Governor Gary Locke, Senator Patty Murray and neighboring Congresswoman Darlene Hooley from Oregon. President Floten proudly announced that her campus has received a $3 million grant from the National Science Foundation, and that BCC has been designated a center of excellence in advanced technological education in IT. Secretary Daley hosted local CEOs at an early breakfast meeting in BCC's new Northwest Center for Emerging Technologies.

Secretary Daley's keynote address included the announcement of a new DOC web site hosted by the Office of Technology Policy (www.TA.doc.gov/go4IT) that allows individuals to do a customized web search by geographic location. Visitors to the new site can look for training, education, curricula development and job possibilities in this virtual one stop shop. Partnerships that have been formed around the country to address local IT needs are profiled on the web, and visitors to the site are invited to fill out a form to post their own programs.

Senator Murray reported that Washington state continues to be in great economic shape, but she encouraged partnerships to solve training and education needs. Murray promised to continue her work to increase the federal budget for teacher training and technology.

Governor Locke quoted Peter Drucker by saying that "knowledge will replace capital as the most important source of wealth creation

■ Left to right: Washington Governor, Gary Locke, Commerce Secretary William M. Daley, Senator Patty Murray and Rep. Darlene Hooley take questions during the press conference.

OTP Goes to Boston

Deputy Assistant Secretary Kelly H. Carnes was invited to participate in the Boston Technology Summit hosted by Women in Technology International (WITI). Carnes hosted a roundtable that focused on bringing more women into these high paying jobs. She was joined on the panel by corporate executives for a lively discussion from the packed audience. As always, a transcript was made of the luncheon speech and panel discussion which will be included in the OTP IT town meeting report due out early next year. As OTP continues to host and participate in public forums around the country, innovative solutions to IT work force needs will be profiled on our GO4IT web site.

A highlight of the day was meeting America's first programmers— women who worked during World War II—and who were literally known as "Computers." These programming pioneers were originally part of a group of more than 80 women who worked at the University of Pennsylvania during

in the 21st Century." The Governor pledged his support to the children in Washington public schools. He wants to be certain they have the skills to meet tough new academic standards. Following the meeting, Governor Locke sent the state legislature a proposal for a $25 million high-tech education program that would bring the public and private sector together to fund information technology education in Washington State. The money would go to at least 200 public high schools and be available on a competitive basis to all of the state's community colleges, four year state colleges and universities. The ambitious proposal seeks to enhance the information technology skills of 3,000 high school students, double the number of technology-degree graduates from community colleges, and triple the number of college graduates with computer science degrees over four years. The program is part of the Governor's overall education package which seeks to build on successful reforms to raise learning standards, prepare students to meet job market demands, and provide opportunities for life-long learning.

Congresswoman Darlene Hooley told the audience until recently

■ Deputy Assistant Secretary Kelly Carnes makes a point to Barry Mitzman, a popular Washington television host who moderated the panel discussions

Oregon was a natural resource-based state, now half of Oregon's exports are high tech. Her state anticipates 20,000 new jobs by the year 2000 but not enough experienced workers to fill them. Rep. Hooley discussed a joint school of engineering that was developed with help from local industry.

A number of local executives discussed what their companies were doing to enhance their work force.

Bill Baxter of BSQUARE told how he began a small company of three, that grew to 230 employees over the years by concentrating on being good to his employees. Being good includes a personal touch; the president of the company hand writes birthday cards to all employees. In the more traditional sense, they offer stock options and benefits ranging from free video rentals to discounts on exercise packages. The company strives to hire the best, and keep them, by offering a new benefit roughly every quarter.

Deetsy Armstrong of SAFECO Corporation talked about her financial services company with 1,200 IT professionals in Puget Sound. In a creative attempt to fill their annual 100 job openings, they targeted music, journalism and English majors who want to get into the IT industry. They were flooded with applicants for their in-house training program. They found the fit worked, and continue to hire from seemingly unrelated fields. Their take is that

■ Panel moderator Barry Mitzman takes a question from the audience during a panel discussion.

people who have an interest, aptitude and analytical skills can learn the computer languages. SAFECO designates money for education funds and pays their employees while they go to training school.

Bo Wandell of Safe Harbor discussed how his company provides technical support for client's products via the Internet. While some companies outsource technical support to Bangalore, India, Safe Harbor does this in Grays Harbor, an economically depressed region in the state. They get support from state and local government by providing infrastructure, training classes and Internet connections. The program is small, but growing as new trainees graduate from a nine week training course. Grays Harbor Community College is investigating starting a two year tech support degree program.

Co-sponsors of the Seattle forum included the U.S. Department of Education, the U.S. Department of Labor, the National Science Foundation, the Washington Software Alliance, the Oregon Software Alliance, the American Electronics Association, the University of Washington, and Bellevue Community College.

OTP will issue a report at the conclusion of the town meeting series that will highlight innovative practices and next suggest next steps. ■

The United States Innovative Partnership (USIP) State Federal Collaboration for Technology-Based Economic Development

USIP is a new program with an ambitious goal— to establish a new working relationship between the states and the federal government as part of a national innovation system to promote economic growth.

The idea became real in June of 1997 when Commerce Secretary William M. Daley joined Maryland Governor Parris Glendening, Connecticut Governor John Rowland (representing the National Governors' Association) and John Gibbons (who was then the President's Director of the White House Science and Technology Policy Office OSTP) in signing the official Memorandum of Understanding.

To make the USIP goal a reality, the partnership employs the following strategies:

1 Make federal tools more "state friendly;"

2 Achieve public policy objectives through state/ federal collaboration

3 Pilot state-based economic development projects

4 Assimilate state "best practices" into federal department and agencies.

Implementing these strategies, USIP has scored a few important success stories.

The Manufacturing Extension Program (MEP) is a unique state-federal program focused on the modernization and competitiveness of small and medium-sized manufacturers in communities across the nation. As part of the increased cooperation between the states and the federal government on science and technology policy through the U.S. Innovation Partnership, the Next Generation MEP Working Group was established in November 1997. Composed of senior technology advisors and executives of state technology development organizations, the working group provided recommendations for the nation's governor and the National Institute of Standards and Technology (NIST) on the future of MEP.
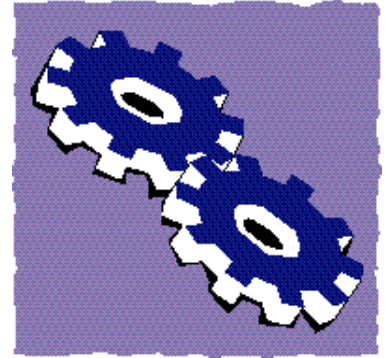
At the 1998 National Governor's Association Meeting in Milwaukee, Wisconsin, USIP insured that technology-based economic development emerged as a key theme. In both the plenary session and the meeting of the Committee on Economic Development and Commerce, participants discussed the implications of technology for economic growth in states. The conference, which also featured an exhibit of specific technology initiatives from member states, ended with the nation's governors committing themselves to further strengthening the state-federal partnership in this field.

The National Conference of State Legislatures (NCSL) Annual Meeting in Las Vegas gave USIP a chance to brief participants. Program director, Pat Flaherty detailed the objectives and strategy of USIP and answered questions from state legislators and legislative staff from around the country.

Starting next month, USIP will jointly sponsor with the Science and Technology Council of the States (STCS) a series of round-table discussions to address the issue of state-federal partnerships in the area of technology-based economic development at the U.S. Department of Commerce in Washington, D.C. The roundtable will focus on a number of states that have well-established and strongly supported commitments to technology-based economic development. The December meeting and subsequent meetings, will provide a forum for these states to discuss their individual successes and upcoming challenges. We also expect they will discuss their experience with the federal government in addressing the question of how synergy between the science and technology-based economic development and traditional economic development strategy can be enhanced at the state and federal levels. ■

USIP is a state-federal partnership designed as part of a national innovation system to promote economic ,growth.

■ Gary Laughlin, Program Committee Chair, ASME Board on Government Relations and USIP Program Director Pat Flaherty share the dias.

Secretary Daley Announces New Internet Resource for Training Information Technology Workers

U.S. Secretary of Commerce William M. Daley announced a new Commerce Department website, "go for IT!," designed to help build an American information technology, or "IT," work force. The website, located at www.ta.doc. gov/go4it, contains the profiles of almost 200 IT partnerships and programs in place across the country that address the growing demand for information technology workers in innovative ways.

"The Commerce Department's new web page — "go for IT!" — addresses the shortage of informa-

The Go4IT web site can give you a customized web search by category and geographic location.

tion technology workers," said Secretary Daley. "There are many innovative programs going on around the country to build a high-tech work force, but people do not know about them. Now, for the first time, everyone can find them in one place. Teachers can scan to see what other teachers are doing, workers can find new training opportunities, and states can find out about other state programs."

"This will be a great boon in terms of quickly understanding what is out there," continued Secretary

Daley. "It is a tremendous resource for the entire country."

Secretary Daley made the announcement at the Pacific Northwest Regional Forum on Developing a Competitive Information Technology Work Force in Bellevue, WA on August 18, 1998.
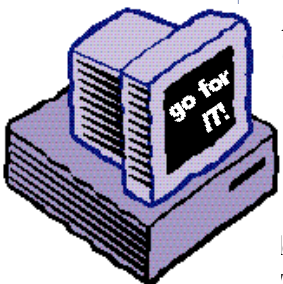
The Commerce Department's Office of Technology Policy developed this site in response to the release of the report America's New Deficit. The study estimated that over the next decade there will be demand for 1.3 million new information technology workers.

The web page, "go for IT!" is a living document, designed to help people find information about a broad range of needs. These range from teachers looking for teacher development opportunities and available educational tools so they can teach their students IT skills, to companies looking for model programs they can replicate to develop a skilled work force in their local community.

Browsers can search the database on this site by either electing to do a search using prescribed parameters, such as keywords, location, program type, and/or sponsor type; or electing to do a full text search using their own keywords or phrases.

These searches can be accessed from the home page directly under "explore IT work force programs." OTP is actively seeking browser input on ways to improve the site structure and content so that the site is effective and user-friendly. Browsers are encouraged to comment on the site through an interactive form or email.

Those browsers interested in finding out about the larger issue of the demand for IT workers, can find related links on the welcome page. All browsers are also encouraged to post their own IT work force programs to the site by filling out an interactive form on the site. ■

The ComSci Fellow Program

A perhaps unsung, but long-standing program at our agency is the U.S. Department of Commerce Science and Technology Fellowship Program, commonly referred to as ComSci Fellows. The program has been in existence for over 30 years as a means to provide senior level federal government employees in the executive branch with an opportunity to study national and international issues that relate to the development, application, and management of science and technology.

The program is sponsored by the Secretary of Commerce and administered by the Office of the Under Secretary for Technology. The ten-

month executive development program is a combination of intensive education and orientation activities with challenging work assignments. Projects are selected to provide participants with policy-making and program management experiences at the highest executive and legislative levels.

The ComSci year book is full of personal success stories and testimonials including one who said "The past year in the ComSci Program has been one of the most rewarding years of my professional career. I have been exposed to an array of new technologies and policies both in the private sector and the public sector." Another offered, "I have had an opportunity to work with industry on a variety of telecommunications issues. This has allowed me to learn directly from the industry leaders where technology is heading and how government can help encourage the bridging of the technology to the business and personal consumers. This insight could only have been realized through my assignment."

Incoming Fellows are as diverse as their assignments. ■

■ Pictured are this year's ComSci Fellows and their new assignments. From left to right: Kyle Norosky, Department of Energy's Fusion Energy Services; Duncan McBride, National Institute of Standards and Technology; Monique Ceruti, The Architect of the Capitol; Jean Barile National Science Foundation; Bruce Ware NASA; Jasemine Chambers, the White House Office of Science and Technology Policy OSTP; Gayle Thornton, EPA and Diane Lynne, The State Department.

For more information on becoming a ComSci fellow contact Cynthia Lynn at: (202) 482-6103 or clynn1@ta.doc.gov.

Office of Technology Policy Environmental Report Released at Yale

The first comprehensive assessment of the environmental industry was recently published by the Office of Technology Policy as a part of its series of industry sectoral profiles. The new report, "Meeting the Challenge: The Environmental Industry," was publicly released as the backdrop for a panel discussion of the industry at the Yale School of Forestry and Environmental Management on October 22, 1998. Participants in the panel discussion included:

■ *Eric Biel*
Acting Director of Policy and Strategic Planning, U.S. Department of Commerce

■ *Steven W. Percy*
CEO, BP America

■ *R. Darryl Banks*
Former Senior Fellow, World Resources Institute

■ *Don Deieso*
CEO and President, EA Engineering, Science and Technology, Inc., Co-Chair of CEO Coalition to Advance Sustainable Technology (CAST)

■ *Cheryl W. Grise*
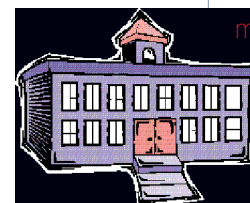Senior VP and General Counsel, Northeast Utilities

Moderator: Marian Chertow, Director, Industrial Environmental Management Program, Yale School of Forestry and Environmental Studies

The report provides a thorough analysis of the structure of the industry, its competitive strengths and the challenges it faces as it moves into the next century. It attempts to capture the views of the industry concerning its future and has been endorsed by a wide spectrum of industry representative groups. It reflects strong industry concern that new approaches to environmental regulation are needed to ensure continued improvement in environmental quality and improved markets for the industry's products and services. ■

The environmental industry seeks new approaches to government regulation to ensure environmental quality and improved markets.

From top to bottom:

■ Enlarged cover of the Environmental Report is used to welcome visitors to 55 Hillhouse Avenue, site of the panel discussion and press conference.

■ Press briefing: left to right Marian Chertow, Director, Industrial Environmental Management Program, David Berg, report author, Eric Biel, DOC Director of Policy, Grant Ferrier, report author (standing).
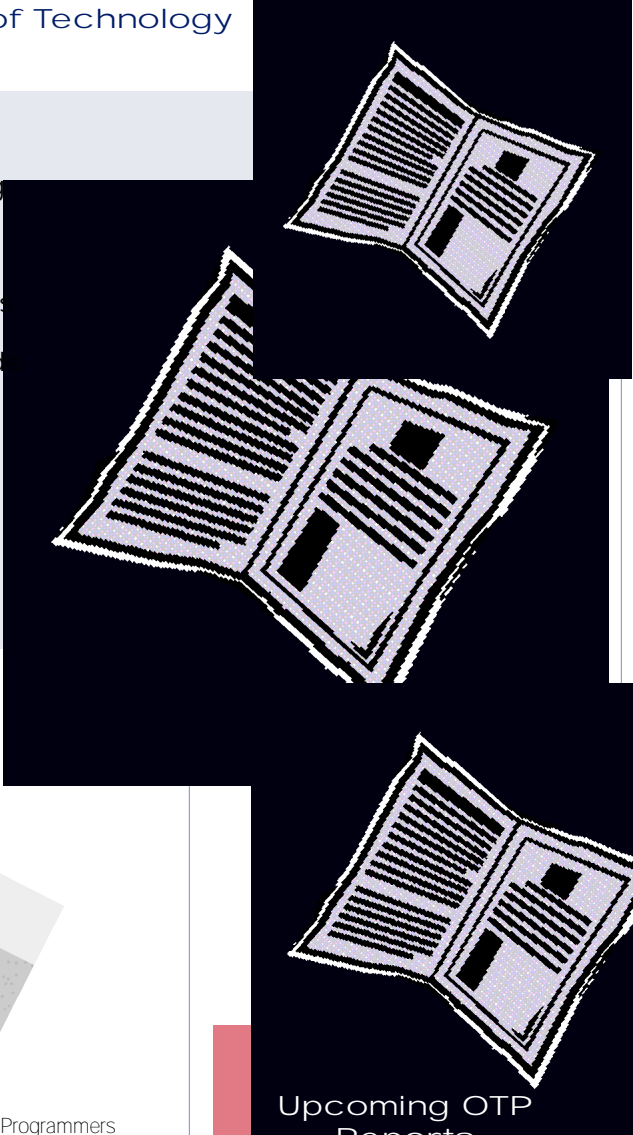
■ Marian Chertow and Eric Biel enjoy a laugh with the audience prior to the panel discussion. Also seated at the table: Steven Percy; Cheryl Grise; R. Darryl Banks; Don Deieso.

■ Darryl Banks makes a point during an interview with a reporter from the Yale campus newspaper, *The Advocate*.

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National Medal of Technology

"As this issue goes to press, we are awaiting final confirmation by the White House of the 1998 National Medal of Technology recipients. The January issue of "Pacesetter" will include full details on the recipients, their backgrounds and contributions, as well as an overview of the '98 award ceremonies." n

A highlight of the day was meeting America's first programmers— women who worked during World War II— and who were literally known as "Computers." These programming pioneers worked on the now famous ENIAC computer.

■ Programmers Jean Jennings Bartik, Frances Snyder Holberton, DAS Kelly Carnes, Kathleen McNulty Mauchly Antonelli, and (seated) Marlyn Wescoff Meltzer.

the war, and were given the name "Computers" by the Army because their job was to compute (by hand) ballistics trajectories involving complex differential equations for cannon firing tables. In 1945 the Army agreed to fund an experimental project which became the first all-electronic digital computer called the Electronic numerical Integrator and Computer (ENIAC). This 1946 computer took up an entire room and was the precursor to the model that is sitting on your desk or in your briefcase today. The Army chose six of these "Computers" to be the ENIAC's first programmers; a classified machine to which they were initially denied access. Four of the Programmers were photographed with Kelly at the WITI dinner. ■

Upcoming OTP Reports

Among the reports in the pipeline for early 1999 release:

Innovation & Technology Policy in the People's Republic of China; and the report from the IT regional town meetings hosted and attended by OTP in 1998. n

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New OTP Reports

The Office of Technology Policy (OTP), has two new publications available—one on innovation and the second on a new partnership model. The first, "The New Innovators: Global Patenting Trends in Five Sectors" is a companion piece to a new report released by the Council on Competitiveness.

OTP joined the Council at both the White House, and again at the Senate Science and Technology Caucus to unveil these companion documents on innovation. The OTP *Innovators* report analyzes the competitiveness of the research enterprises in the United States, the European Union as a group and 14 other countries. The report concludes the United States has a clear technological edge in each of the sectors examined—health, advanced materials, automotive, information technology, and express package transportation and logistics—an advantage not likely to be severely challenged in the near future.

However, the report also points to a quickening of technology cycles times and greater linkages to leading-edge research—trends that may enable countries to leapfrog generations of technologies within a brief span of time. An example that may be surprising to some, is that over the past decade, the Republic of Korea and Taiwan have overtaken the United Kingdom and Germany in the number of information technology patents granted in the United States.

The Council's "Going Global: The New Shape of American Innovation" reports on the same five sectors and outlines conditions that are necessary to achieve the big innovation payoff of economic growth and higher-wage jobs.

"Ultimately, there are two clear messages to be drawn from our report," said Gary Bachula, Acting Under Secretary for Technology. "First a strong, sustained and balanced national commitment to investment in science and technology is essential to maintaining a healthy, vibrant and globally competitive American economy. And second, there is no 'one size fits all' approach to technology policy. Only by understanding the unique circumstances affecting each technology, can we shape policies and programs that foster American innovation and competitiveness."

The second report "The Fraunhofer Society: A Unique German Contract Research Organization Comes to America," describes a mechanism of industry, university and government technology collaboration which has played an important role in Germany, and is now establishing a presence in the United States. This report, the first of two, describes what the Fraunhofer model is. The second report due out in late 1999 will examine how the American version of the Fraunhofer model has been working as established in this country. Fraunhofers are designed to help industry gain rapid access to innovation and to acquire new technologies through long-term research.

Both OTP reports are free and available by calling our publications request line at: 202-482-3037 or on the web at www.ta.doc.gov/reports. The Council on Competitiveness report is available for a fee and may be obtained by calling (202) 682-4292. ■
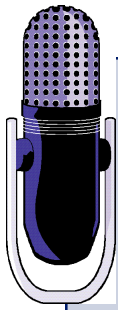
OTP joins the Council on Competitiveness to release companion reports at events held at the White House and on Capitol Hill.

■ Left Photo: Acting Under Secretary Gary R. Bachula and President Clinton's Science Advisor, Neal Lane chat in the White House Indian Treaty Room before the panel discussion begins.

■ Middle Photo: Gary Bachula holds up a copy of OTP's New Innovators report to emphasize a point. Seated next to him (right to left) Fran Narin, President of CHI Research, Inc. and John Yochelson, President of the Council on Competitiveness.

■ Right Photo: Senator Jeff Bingaman (D-NM) talks about innovation. Also on the dais (right to left) Maurice Holmes, Corporate Vice President and Chief Engineer of Xerox and Acting Under Secretary for Technology, Gary R. Bachula

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Something to Talk About!
In the Next PACESETTER

■ Profiles on the this year winners of the National Medal of Technology

■ New grant winners from The Experimental Program to Stimulate Competitive Technology (EPSCoT) announced

■ The Daimler-Benz and Chrysler merger is now a reality. The impact for the Partnership for a New Generation of Vehicles (PNGV) will be discussed.

■ Pictured on cover is the front of the North West Center for Emerging Technologies on the BCC Campus visited by Secretary Daley during a recent trip to Seattle.

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