OREGON BUILDING CONGRESS



2003 Annual Report

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Highlights

Program Expansion. In 2003, the Oregon Building Congress (OBC) continued to expand its programs throughout Oregon and Southwestern Washington, more than doubling the number of students in its Construction Academy program to 120 and more than doubling the number of teachers in its math workshops to 56.

Medford Pilot Programs. Led by Russ Batzer, OBC Director and President of Batzer Inc. in Medford, OBC brought its programs to Southern Oregon. A highly skillful and cooperative team organized a middle and high school Construction Academy program and two Summer Math Workshops for 38 teachers. Nine contractors, the Southern Education Service District, and the Bureau of Land Management made grants and donations totaling \$26,200 to help develop the Medford Construction Academy programs for middle and high school students. An additional grant of \$7800 from the Southern Oregon Service



Medford math teachers visit a construction site with Bret Moore (far left), President of the Home Builders Association of Jackson County.

District enabled OBC to develop the pilot Summer Math Workshops.

National Science Foundation Grant. In September Portland Community College (PCC) and Oregon State University were awarded a National Science Foundation grant whose purpose is to better prepare high school graduates entering the Building Construction Technology program at PCC. This grant was designed with the assistance of OBC and drew heavily upon its math and science workshop models and its construction academy program. The grant is for more than \$700,000 over a three-year period.

Department of Education Advisory Group. The Oregon Department of Education asked for OBC's participation in an advisory group to make suggestions to the department on how it might better organize itself in providing quality education to the public school students in Oregon. OBC joins representatives from Intel Corporation, Associated Oregon Industries, and key educational organizations.

Green Building Initiative. At the instigation of Katie Aylward, Director of the Clackamas County Environmental Youth Corps program, and with the early and important assistance of Doug Grover, Marketing Vice President of Lumbermens, OBC initiated a new educational program on "green" or "sustainable" construction as part of its Construction Academy program. The Clackamas County Commissioners made a grant of \$7700 to help OBC develop the special green building classes for the students in the Clackamas County Environmental Youth Corps program. Already the new program is bearing fruit. Molalla High School construction technology students are now involved in the construction of a home using 'green" materials. OBC hopes to expand this 'green initiative" to include all Construction Academy programs in 2004. OBC would like to launch the effort to promote "green" building processes in all construction technology programs at both the high school and community college levels.

Diversity Program for Portland Public Schools. A grant of \$30,000 from the City of

Portland's Bureau of Purchases, Contractor Division, enabled OBC to develop a special construction program at Benson High School for Portland Public Schools middle school and early high school students as part of OBC's Construction Academy.

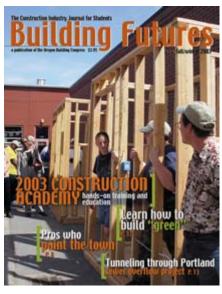
Construction Academy Programs for Educational Service District 112 in Vancouver. A new spring program was started with a class of 15 high school

started with a class of 15 high school students working on construction projects at the Columbia Springs Fish Hatchery. The regular summer program had three classes, totaling 45 students. ESD 112 made grants to OBC of over \$27,000 to help fund these programs.

Portland Summer Math Workshops.

OBC continued this highly successful program with two workshops for 18 teachers from Oregon and Southwest Washington. PG&E National Energy Group and Washington Mutual made grants to help sustain these workshops.

Building Futures Magazine. With contributions from OBC members, *Building Futures* magazine introduced an improved and expanded editorial format, with more photographs and articles about student and teacher activities.



Fall/Winter 2003 Issue of Building Futures.

New Members

OBC welcomed two new members in 2003, the Portland chapter of the National Association of Women in Construction and Educational Service District 112 in Vancouver. Both joined during the winter, making great additions to our membership.

Summer Math Workshops

Medford-Area Workshops



Ralph Shaeffer (second from left) shows Medford teachers how to construct a 90 degree elbow.

The Math Workshops were held the weeks of June 16th and June 23rd. A total of 38 teachers attended. Dr. Phil Long, Curriculum Director of the Medford School District, headed the Planning Task Force, and Carolyn Kidd provided one of the major highlights by bringing a crane to the workshop and giving each teacher the opportunity of operating it. She also arranged for a site visit to LTM's Asphalt Plant. Ralph Shaeffer did another classic performance on trigonometry. Steve Malany, Rich Tolvstad, Bob Pyritz, and Walt Gamble did outstanding presentations, respectively, on concrete, buoyancy, compaction, and Pascal's Law (the basis for pneumatics and hydraulics). The teachers learned about electricity from two very gifted electrical instructors, Marc Wooldridge and Les McClain. Ralph Henderson provided carpentry lessons in stairs and rafters and hosted the two workshops at the Rogue Community College Construction Technology Center. Ric Walch and his crew at Medford Fabrication had both teacher groups for a full day and provided an inside look at how some of the construction equipment used by such companies as Komatsu is made. Russ Batzer of Batzer Inc. and Bret Moore, President of the Home Builders Association of Jackson County, led the teachers on the two construction site tours.

A number of the instructors remarked on how engaged the teachers were, refusing to take breaks in order to work on their projects. Teachers learned how basic math, algebra, geometry, and trigonometry are used in the construction trades to build things. As in previous workshops, teachers overwhelmingly evaluated the workshops as being in the upper 20% of all their professional development experiences. A number of teachers said the workshops were the best they ever attended.



Medford teachers make a roof ridge pole and rafters after receiving instruction from Ralph Henderson of Rogue Community College.





Walt Gamble (far left) shows Medford teachers how to levitate, using Pascal's Law.

Portland-Area Workshops



Portland workshop teachers master the art of operating walked away with lots of new ideas on how to use applied

OBC held two Summer Math Workshops in the summer during the weeks of July 14th and July 27th, with 18 teachers in attendance. Apprentice trainers from the Willamette Carpenters, Sheet Metal, NECA/IBEW, and Operating Engineers Training Centers and instructors from PCC's Building Construction Technology program received high marks from teachers, who walked away with lots of new ideas on how to use applied examples of math. In particu-

lar, the teachers appreciated the in-depth presentations they received on their tours of construction sites by SkanskaUSA and Colamette Construction Company. Tom Sybouts, a Washington middle school teacher, came back for a second time, bringing two math teachers from his school. He said the workshop "was better than last year—more hands on things to do." Another teacher said, "It exceeded my expectations This is something all mathematics teachers should go through." As in past workshops, over 80% of the teachers rated the workshops in the top 10% of their professional development experiences.

OBC's message about the trades and construction careers is getting through! Many of the teachers noted how important math is in the trades. As one teacher commented, "An apprenticeship/education is not just for manual labor—it takes brains & math to be a good sheet metal, construction, or electrical worker." This teacher will



Jim Murphy (second from right) of the Willamette Carpenters Training Center explains how to cut a rafter.

"encourage" her students "to consider the trades for their future." Another teacher gained the following knowledge—"Seeing that educated people work in the trades. This is no longer a 'blue collar' field where non-educated young people get dumped."

In the past three years the workshops have enrolled 66 teachers who reach a combined total of 5193 students, a student/teacher ratio of almost 79:1. So OBC's message has the potential of reaching 79 students for every teacher who attends the workshops. Since the inception of the Summer Math Workshops, 240 teachers have gone through the Portland-area workshops. If this leverage factor holds true for prior years when OBC did not keep statistics, these workshop teachers reach approximately 19,000 students each year.



Teachers show their stairs.



Carolyn Kidd (second from right) of the Heavy Equipment Operators explains the "boom or bust" theory of crane operation.



John McCamish (far left) of the NECA/ IBEW Electrical Training Center reaches for new heights as teachers show their conduit-bending skills.

Construction Academy

Portland-Area Programs

Parents Night. June 23rd kicked off this year's summer Construction Academy with a Parents' Night program at the Sheet Metal Training Center. Carolyn Kidd, OBC's President, welcomed 80 parents and students from Clackamas, Clark, and Cowlitz Counties and Portland



"Hey! I can make a scale model from plans."

Public Schools. Attendees were introduced to OBC members and apprenticeship trainers, who talked about the summer's planned activities and the many apprenticeship programs available to graduating students.

Portland Public Schools Diversity Program. Thanks to the grant from the City of Portland's Bureau of Purchases-Contactor Division, OBC conducted two Construction Academy classes in Portland, consisting of a 7th and 8th grade program and a

9th and 10th grade program, both at Benson High School. Tim Mosterdyke, construction technology teacher at Scappoose High School, was the instructor for both programs, which ran from July 7th to August 1st.

In addition to receiving instruction on construction technology, students visited the Portland Metropolitan Home Builders Association "Street of Dreams," Portland Community College's Building Construction Technology Center, and the Willamette Carpenters, NECA/IBEW, Associated General Contractors, and Sheet Metal Training Centers.

On August 1st, a completion ceremony was held, and parents, friends and family members all joined in the celebration. Students showed off their work, which included the construction of stepping-stones, stairs, and toolboxes and the framing of a shed. One parent, in particular, was so delighted by what her son had learned that she was going to put him to work the rest of the summer



"Check out my cool toolbox."

building a deck in their backyard!

ESD 112 Programs. This year marked Southern Washington's Educational Service District 112's first-ever spring Construction Academy. Under the direction of Bob Martin, 15 students worked on public lands, continuing the work Pete Anderson and his crew began last summer at the Columbia Springs Fish Hatchery. John Martin, who taught construction math during the spring term at PCC, directed the ESD construction crew in the summer Construction Academy. The



A little math, a lot of measuring, and the walkway heads in the right direction.

students built additional walkways, benches, tables, and viewing areas. Most mornings John would write out the math equations the students would need to apply on that day's construction project and then have his crew use the math to build the structures. At the end of the day they then debriefed what they had learned.

While many of these students were from immigrant backgrounds, often struggling with their English, their work ethic was superior and their work product was firstrate. A number of the

instructors remarked on how so many of these students "had what it takes." In the words of John Martin, "What a great privilege it is to work with such a fine group of young people."

As part of the Construction Academy experience for ESD112, the younger-student classes visited the NECA/IBEW, Sheet Metal, Bonneville Power Administration, Operating Engineers, and AGC Training Centers, the Clark Community College and Portland Community College Construction Technology programs, the Metropolitan Home Builders Street of Dreams, Western Federal Lands Highway Division laboratories, and the PGE Earth Advantage program. With the assistance of Mark Johnson and Jim Murphy of Willamette Carpenters, some of the students made a number of beautiful birdfeeders that were donated to local charities. One of the classes was an all-female group that later in the summer worked on laying out footprints for homes built in a Cowlitz subdivision.



Mick Hemphill (standing) of the NECA/IBEW Electrical Training Center adds a little voltage to the all-female class from ESD 112.



Bridge construction at the Molalla wetlands.

gram. Two groups of ten students each worked for pay in Clackamas County under the direction of Dave Duty and Terry Nimz, construction technology teachers from Rex Putnam and Estacada High Schools, respectively. Both worked with the Construction Academy students last summer and were delighted to be instructors again this summer.

Clackamas Green Building Pro-

One crew of students worked on the campus of Clackamas Community College, partially deconstructing a building and then using the materials to build structures such as kiosks and pedestrian bridges at the Environmental Learning Center on the Clackamas campus. Throughout each week Ross Vroman, Vice President of SkanskaUSA, and his managers

walked students through the progress made on the new buildings

Skanska was constructing on the campus. Skanska also provided weekly instruction on environmental practices in construction.

The other crew worked in a wetlands area owned by the City of Molalla. These students completed the construction of five structures, including bridges and elevated walkways.

Special to the Clackamas County program was the inclusion of an environmental component, the brainchild of Katie Aylward, the Director of the Clackamas County



Alicia Surowiec (left) of Skanska USA explains the intricacies of environmental construction.

Environmental Youth Corps. The program was developed with the aid and assistance of Lumbermens, Weyerhaeuser, Portland General Electric's Earth Advantage program, Metro, SkanskaUSA, The Rebuilding Center, the Environmental Supply Company, and Waste

Randy Hansell (pointing) of PGE—Earth Advantage explains different methods of lighting.

Throughout
July and August, students
were on the
road. They
visited Weyerhaeuser's site
in Springfield,
Ore., where
they learned
about the

Management.

growth of sustainable forests. Students then visited the Earth Advantage program at PGE. Next, they received a presentation on Lumbermens' "Shades of Green" program. Then it was off to Metro, The Rebuilding Center, the Environmental Supply Company, and Waste Management, where they received instruction on recycling of construction materials.



Clackamas students visit Weyerhaeuser's sustainable forest.

All students received at least 32 hours of environmental education, including information on the maintenance, growth, and harvesting of sustainable forests, efficient energy usage, proper site preparation, use of sustainable products, clean air, proper deconstruction techniques, and recycling.

The attentiveness of the students to their environmental program illustrated well the power of learning in context. They not only learned about environmental practices, they actually put them to work. Katie Aylward said the program changed students' attitudes toward the environment.

An exciting outgrowth of this project is the commitment from Randy Spanfellner, construction technology teacher at Molalla High School, to build a "green" house with his students this coming year, with the assistance of Lumbermens, based on the information acquired this summer from the environmental program.

Medford Construction Academy

The Medford Construction Academy had two components, a oneweek middle school program at McLoughlin Middle School and an

eight-week constructionwork program for high school students. The crew of high school students started their day at 6 a.m., working on Bureau of Land Management land to build a gabion wall and pole barn on the lower Rogue River, while learning lessons in teamwork and finding out how to drive a backhoe. Parents were especially impressed with their children's construction projects, their children's excitement about the projects, and their willingness to work



Pole barn on the Rogue River built by Construction Academy students led by teacher Doug Gardner of Crater High School.

in temperatures over 100 degrees.

Building Futures

Building Futures completed another successful year with the publication of the Fall/Winter issue, distributed in September, thanks to the great effort of publisher Denise Curry (BUILDERnews) and her staff. Increased ad revenues, OBC member contributions, and sponsorships improved the format of the magazine, with more editorial content and photographs. The recent issue featured OBC's multitude of summer programs, including an article by Charles Jost, one of the high school students in the Medford Construction Academy.

The magazine contains information on career opportunities and resources, major building projects, community colleges and universities with construction programs, and much more. One OBC director commented that her staff really likes the magazine and uses it as a reference source. Building Futures is distributed at no charge to over 186 high schools and to community colleges in Oregon and Southwest Washington, as well as to teachers in the Summer Math Workshops and students in the Construction Academy. Requests for magazines have come from as far away as Washington, D.C., Illinois, and Georgia.



Teacher of the Year, Tim Mosterdyke, Scappoose High School.

OBC Award Winners



Congressperson of the Year, Loretta Young, City of Portland, Bureau of Purchases— Contractor Division.

At its 2003 Awards Banquet on November 12, 2003, OBC will give the following awards to those persons who have made outstanding contributions to OBC programs. This year's award winners are:

- Pete Anderson Teacher of the Year, Tim Mosterdyke, Scappoose High School
- Vocational Educator of the Year, Ralph Shaeffer, retired apprenticeship trainer from the Sheet Metal Training Center
- Ray Baker Congressperson of the Year, Loretta Young, City of Portland, Bureau of Purchases— Contractor Division
- Contractor of the Year, Russ Batzer, President of Batzer Inc., Medford, Oregon
- Past President Award, Doug McClain, The Harver Company, Portland, Oregon

Conclusion

It has been most gratifying to see students from many varied backgrounds excited and motivated to learn more about construction careers and to hear from their parents how much their children loved the Construction Academy programs. It has been equally gratifying to hear from teachers how much they enjoyed the math workshops and how useful the materials and instruction was for them. OBC will continue to develop and expand its programs in 2004 in furtherance of its mission—"To partner with educators to increase the quality and diversity of entrants into the building industry."



Vocational Educator of the Year, Ralph Shaeffer, retired apprenticeship trainer from the Sheet Metal Training Center.

OBC Sponsors and Donors

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Marilyn Robinson, Bonneville Power Administration

Technical Training Center

Jada Rupley, Education Service District 112 (Vancouver, WA)

Eric Sander, USI Northwest

Craig Schommer, A.C. Schommer & Sons, Inc.

Toni Severe Marcelin

Jill Walters, Portland YouthBuilders

Loretta Young, City of Portland

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Associated General Contractors of America,

Oregon-Columbia Chapter Batzer Inc.

Bonneville Power Administration Technical Training Center

City of Portland

Construction Industry Training Trust

IUOE Local 701 and AGC Heavy Equipment Operators JATC

National Association of Women in Construction, Portland Chapter

NECA/IBEW Local 48 JATC

Oregon Building Industry Association

Oregon Tradeswomen, Inc.

Oregon Washington Employers Carpenters Apprentice

and Training Trust

PNWSM (publisher of *Building Futures* and *BUILDERnews*)

Portland Community College

Portland Public Schools

Portland YouthBuilders

RJ and Company Property Maintenance LLC

Sheet Metal Training Fund

Skanska USA, Oregon Division

USI Northwest

INDIVIDUALS: Neil O'Connor

HONORARY:

Ray Baker

Doug Ellis

Darlene Fritsche

OBC Mission Statement

To partner with educators to increase the quality and diversity of entrants into the building industry.

OREGON BUILDING CONGRESS

9450 SW Commerce Circle Suite 260 Wilsonville, Oregon 97070

Phone: 503-685-8313 Fax: 503-682-1696 E-mail: dicko@obcweb.com

