

Apprenticeship Section- (360) 902-5320
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Web site: <http://www.lni.wa.gov/TradesLicensing/Apprenticeship/default.asp>

DATE: January 14, 2008

TO: Washington State Apprenticeship and Training Council Members
Labor and Industries' Apprenticeship Coordinators
Washington State Apprenticeship Training Directors/Coordinators
Interested Apprenticeship Stakeholders

FROM: Elizabeth Smith, Apprenticeship Program Manager

SUBJECT: **QUARTERLY REPORT FOR 2nd (FY) QUARTER 2008
(October - December 2007)**

There were **17,247** active apprentices for the 12-month time period ending December 31, 2007 of which **1,918** were women and **4,049** were minority.

For the time period: (October - December 2007)

- **78** individuals received completion certificates;
- **1320** individuals were registered;
- **0** committees were registered with a total of **0** occupations;
- **0** programs were registered with a total of **0** occupations; and
- **2** occupations were added to **2** existing programs.

As of December 31, 2007 there are:

- **240** registered programs, of which there are:
 - **34** plant programs;
 - **1** OJT program;
 - **103** Group-Joint programs;
 - **68** Individual-Joint programs;
 - **24** Group Non-Joint Programs;
 - **8** Individual Non-Joint programs; and
 - **2** Individual Waiver program

If you break this out to one program equals "one occupation with one committee" then there are currently **553** individual programs active as of December 31, 2007.

General Apprenticeship Activities:

The following committees/programs/occupations were approved at the October 2007 WSATC quarterly meeting.

City of Seattle, Washington Apprenticeship Committee	Utility Construction Worker	New Occupation added
Southeastern Washington/Northeastern Oregon Sheet Metal Workers Apprenticeship Committee	Sheet Metal Service Technician	New Occupation added

Correcting Problems with Registered Apprentices on Prevailing Wage jobs:

L&I Apprenticeship staff continue to hand-check any Prevailing Wage Affidavits of Wages Paid submitted to the department which have registered apprentices listed on it. We are checking various things, which include:

- Is the employer an authorized training agent for the program to which the apprentices are registered?,
- Were the individual's listed as apprentices properly registered apprentices for the entire duration of the job?
- Is the Apprentice listed as working in the occupation in which they are registered?
- Is the apparent ratio of journey-to-apprentice workers acceptable?

To-date we have checked over 3,600 documents and have found approximately 500 which require corrections or clarification regarding the use of registered apprentices. This checking also includes checking the status of Oregon based employers and apprentices. When found, depending on the nature of the problem, they are either distributed to the L&I Apprenticeship Consultant for the program involved, so that the Apprenticeship Consultant may contact the apprenticeship program to resolve the concern, or the Affidavit is returned to the employer to be fixed and re-submitted. The most typical problem distributed to L&I Apprenticeship Consultants to send to the program is that the apprentice was working for a training agent that is not listed as an approved training agent in the ARTS system. The most common cause for Affidavits to be returned to the employer are instances where apprentices are not registered appropriately, not registered at all, or working out of ratio. In the coming months, Affidavits where apprentices are found to be working with employers who are not approved training agents will also be turned back to the employers.

New Apprenticeship Consultant in Region 3

Michael Thurman has accepted the position of Apprenticeship Consultant for LNI Region 3, which covers **Clallam, Jefferson, Kitsap, and Pierce County**. This area was previously covered by Pam Doss. Michael has served in the apprenticeship section since 1996. His new position is effective January 16, 2008. Initially, he will be dividing his time between Tacoma and the Tumwater office while a replacement is trained. He will

continue his involvement with the ARTS Upgrade project. His exact full-time move to Tacoma is undetermined at this time.

Michael Thurman, Apprenticeship Consultant

Apprenticeship Section, Labor and Industries

PO Box 44530

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360-902-5324, fax 360-902-4248

New Apprenticeship Consultant in Region 1

Alice Curtis, who is currently the Apprenticeship Consultant in LNI Region 4 (covering Thurston, Mason, Lewis and Grays Harbor Counties), will be transferring regions to cover LNI Region 1 (**Island, San Juan, Skagit, Snohomish, and Whatcom counties**). Bill Chrisman previously covered this region. The office will be in Everett, instead of Mt. Vernon. This will create an AC vacancy in the Olympia-Grays Harbor area, for which we will be recruiting in the near future.

Current Contact Information:

Alice Curtis, Apprenticeship Consultant

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E-mail: cura235@LNI.wa.gov

New Contact Information:

Alice Curtis, Apprenticeship Consultant

729 10th St SE

Everett, WA 98208-3727

425-290-1321 Fax: 425-290-1339

Workforce Training and Education Coordinating Board - Apprenticeship presentation:

The WTECB will be meeting on January 31st, at New Market Vocational Skills Center in Tumwater. They have requested a presentation on apprenticeship, which will likely include ideas on how to build better partnerships within the current workforce system. We will be gathering ideas for this presentation during a session next Thursday, January 17th, from 2 – 4 PM.

ARTS upgrade to allow online access and reporting: We're in the "Requirements Gathering" stage, and we've been meeting with apprenticeship programs to gather input. Thank you for your help on this. If you are interested in being a part of the ongoing feedback group regarding the ARTS upgrade, please contact Michael Thurman, thum235@LNI.wa.gov, 360-902-5324.

April WSATC meeting and Public Sector Apprenticeship Workshop: April Council meeting will be at the South Seattle Community College Duwamish campus. On Tuesday, April 15th, we will have a one-day conference on public agency apprenticeship. The goal of this event is to explore and share the current successes of apprenticeship being used by public sector entities (City of Seattle, Port districts, state agencies, etc) and encourage this to grow in other entities. On Thursday afternoon, January 17th, 2008, after the planning meeting on the apprenticeship presentation to the workforce board, there will be a meeting to discuss the public agency apprenticeship workshop and possibilities for other events to be held in conjunction with the meeting. Anyone who is interested is welcome to attend.

State of Washington Apprenticeship Patches: We've started sending out a specially created apprenticeship patch with every completion certificate, a small item to show our appreciation and esteem for the individual who completed their training. We have about 1,500 patches, so we should be able to keep this up through a good part of the year.

Joint Committee on Recruitment and Retention: Everyone is encouraged to be involved with this new committee effort, essentially an advisory committee to help direct the effort to provide information, resources, and experts that can enhance the collective knowledge around how to do well at recruiting and retaining apprentices, especially female and minority apprentices. It will be comprised of members of the WSATC, training directors, non-profit and workforce development staff, and anyone else who wants to add to the collective conversation around doing recruitment and retention better. If you are interested in joining, please email Stacy Mathis, masu235@LNI.wa.gov, or call her at 360-902-6410.

U.S. Department of Labor Proposes Rules to Align Apprenticeship with the 21st Century Economy. The U.S. Department of Labor has proposed revisions to the federal rules governing apprenticeship to align the national apprenticeship system with the tools and flexibility needed for the 21st century global economy. The proposed rules would set up a more flexible and user-friendly approach for apprentices and employers, and make updates and changes affecting state apprenticeship agencies and the U.S. Department of Labor. To obtain additional information, visit: <http://www.dol.gov/opa/media/press/eta/archive/eta20071876.htm>

WANTED: Apprenticeship programs interested in partnering with their local WorkSource office. One thing that WorkSource offices do is talk to job applicants about their choices and directions, give specific tests and assessments to those individuals, and then refer those individuals to work or training opportunities that fit their skills and circumstances. Often, the individual referred may have access to workforce development funding to pay for tools, books, tuition, and transportation or childcare expenses.

LNI is looking for apprenticeship programs that would be interested in participating in a pilot effort to build a partnership between their program and a local WorkSource office to explore if this sort of assessment-referral partnership could work for apprenticeship programs. Programs taking part may save time and effort on drug and aptitude testing, and apprentices who come through this route could have access to workforce-related funds for training and

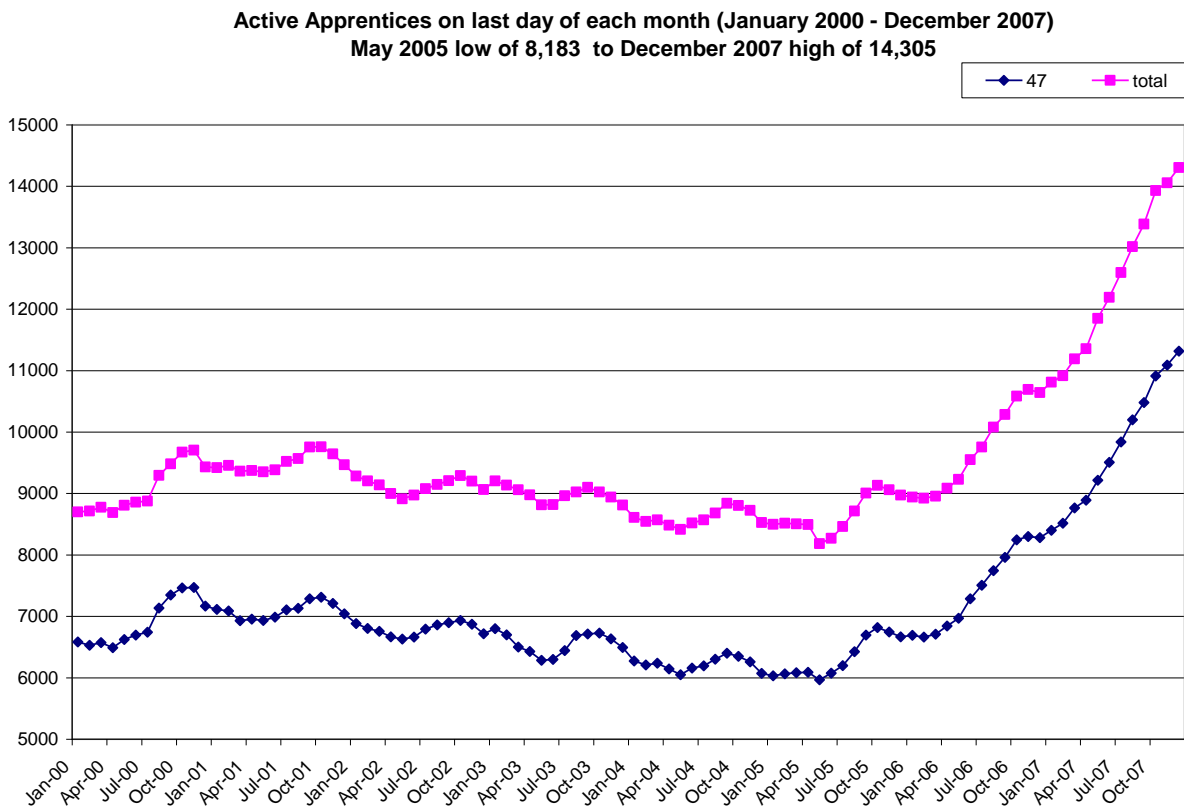
employment related expenses. If you are an interested apprenticeship program, please contact your LNI apprenticeship consultant.

Apprentice numbers continue on the rise (Monthly Active Totals):

This chart shows how the number of Active Apprentices (Last day of each Month) has steadily increased over the last few years.

Since the last low point of February 28, 2006 (**8,895**) there has been an **increase of 60.82%** to a total of **14,305** active apprentices as December 31, 2007. This is an increase of **5,410** active apprentices.

The chart also shows the increase in apprentices in occupations represented by the Standard Occupational Classification (SOC) code category 47, which are Construction and Extraction Occupations.



Program News and Related Articles

Gov. Gregoire's State of the State speech (EXCERPT) mentions Apprenticeship and Running Start for the Trades Program

Source: SEATTLE POST-INTELLIGENCER, January 15, 2008

Excerpt from Washington Gov. Chris Gregoire's 2008 State of the State Address, as prepared for delivery:

Not everyone wants to go to college, and we are providing the opportunity for these students to flourish. Our Running Start for the Trades Program is working. By connecting motivated high-school kids to the trades, we are increasing graduation rates, preparing kids for a good career, and meeting the need for these high-demand, good-paying jobs.

Kids like Ricardo Rodriguez. During high school he started attending the New Market Skills Center in Tumwater with an eye toward an apprenticeship in the building trades. Ricardo says he hated high school, but all he knew how to do was flip burgers. Now he's learning to be a builder to earn a family wage!

We are helping thousands more kids succeed and making our work force strong. In the last three years we have nearly doubled the number of apprenticeships to 14,500. Now, that's progress!

Got a Trade?

Source: By Julie Yamamoto

In my next life, I'm going to become a plumber.
Or a pipefitter.
Or maybe a steamfitter.

And when I do, I'm going to have a group of friends with me. Some of these friends will be the students who accompanied me last November on a trip to visit the Southwest Washington Pipe Trades Apprenticeship and Training program in Lacey, Washington.

The training site is a quick jaunt from St. Martin's University, where I teach freshman writing courses, and I discovered it as a result of a column I wrote for *The Olympian* in September (<http://www.theolympian.com/opinion/story/227366.html>). In the column, I pondered the value of a college degree, and compared that value with non-degree programs such as the skilled trades.

During my high school years in the late 70s, two phrases were routinely tossed out to graduating seniors. The first was "Get a college degree, get a good job!" The second was "Get a trade." I didn't know what the second phrase meant, and fell for the myth of the first. I am now one of the casualties of that myth.

My training is in writing and literature. Folks like me are a dime a dozen. (And that dime won't even buy me my daily cup of tea.) There are a few good jobs out there, and I've been fortunate to have several as a result of my education. But the job markets I routinely search have long been oversaturated, and the pay for teaching a class is, well, significantly below five figures.

So as a college instructor, I'm trying to open my students' eyes to paths outside the college degree. If the statistics are true – that only 29% of those starting college actually finish – many of them will need to know about these paths, and apprenticeship training is an enticing one.

At the Pipe Trades site, my students and I learned about the types of jobs apprentices have. We saw the well-equipped and well-ordered classrooms where they study and practice. And we got a glimpse of some of the people involved in the trades through an attractive DVD presentation narrated by apprentices themselves. It's clear that there is opportunity – a constant and even growing demand for people with trade skills -- and the potential to earn a satisfying living.

An especially appealing aspect of the program is the ability to earn while you learn, unlike traditional paths of education, in which you don't earn till after you've learned, and an employer can only hope you've learned the right stuff. And the apprenticeship program just might prevent those moments of despair when you find you've boxed yourself into a career corner with nowhere to go. With a trade, there's always somewhere to go.

When we left the trade site that day, my students and I had pretty much decided we'd all like to be plumbers. I don't know how many of us will follow through with that plan, but at least we know that the world is bigger than we imagined and there are good opportunities available for the majority of us, who don't go to college or don't make it through. That idea in itself is an education.

“Get a trade.” Now I know what that phrase means. If you've got the talent and the interest, getting a trade means getting a good job.

My thanks go to Ed Madden, Apprenticeship Consultant at the Department of Labor and Industries, and Jay Clevenger, Training Director of the Southwest Washington Pipe Trades Apprenticeship program for making our visit possible.

All kids deserve the tools to carve out their dream

By Al O'Brien, Copyright © 2008 The Seattle Times Company



Al O'Brien

Go to your local elementary school and peek inside a room full of kindergarten students. Half of those kids are behind on the first day of kindergarten. Most never catch up — 30 percent of those kids won't finish high school. Thirty percent!

Are you satisfied with that? I'm not.

Our children and grandchildren aren't getting a fair shot at life. It's no surprise that the kids who don't learn to read by third grade are the ones who drop out of high school, and those same kids tend to fill our prisons later in life.

The United States has 5 percent of the world's population — and 25 percent of the world's prisoners. We can't afford to continue this trend of investing more in prisons and less in our kids.

I believe we can do better.

Every child — rich or poor — deserves a fair shot at the American Dream.

The game is rigged against some kids at the start, and the finish line we have today isn't working.

There's this popular myth that high-school students will fall into one of two categories: college whiz kid or burger flipper.

That stereotype hurts us all.

It hurts high-school students the most; not their self-esteem, but their future.

I want more kids to go to college. I'll always vote to open up more spaces in colleges, and it's great that we're building a new university in Snohomish County.

Where we lag is the 50 percent of kids who don't go to college, and the 25 percent who start college but don't finish.

Kids who don't finish college aren't failures — but we make them feel like they are.

Why are we surprised that many kids seem to give up around high school? They're looking down the field and seeing that they're so far behind in the race, there's no way they can win.

There is a better way. Let's make sure every child in Washington state has a shot at success.

Our universities don't have room for every high-school student. And there aren't enough jobs that demand a bachelor's degree to push for an unrealistic policy of having every high-school graduate earn a bachelor's degree.

We have two big shortages in the job market right now.

The first — the one you know about — is in high-skill college graduates, especially in math and science: engineers, scientists, computer programmers.

Every week, Microsoft and Boeing hire people from Indiana and India because we don't produce enough college graduates for these \$100,000 jobs.

I want our kids and grandkids to compete for those jobs, and we are giving more people those degrees.

The second shortage is the one that nobody talks about: the skilled trades.

If we want to do something about poverty and crime and build schools instead of prisons, we need to think about skilled trades.

There couldn't be a bigger difference between flipping burgers for minimum wage and working as a marine welder, making twice the salary as your buddy who has an English degree from the University of Washington.

Are they bad jobs? No. They're great jobs. Electricians, locksmiths and brick masons are solid careers and make good money. You won't have to retrain and change jobs six times. We'll always need people in the skilled trades.

It's not as simple as spending less money to build prisons and more money to build universities. We need to do that, but it won't reach the 50 percent of kids who don't go to UW or Washington State or Western Washington.

For those students, we need to invest in high-school skill centers to give students a third path, a different choice than college whiz or burger flipper.

To give every child a path to the American Dream, we need to boost apprenticeships and invest in community-college programs for skilled trades.

As a father and a college instructor, I know every child is different. I don't see that as a weakness; it's a strength we can build on.

Let's find ways to make sure every child starts strong — and finishes strong.

Rep. Al O'Brien, D-Mountlake Terrace, is chairman of the House Public Safety and Emergency Preparedness Committee. He served 28 years as a police officer and saw combat in Vietnam as a warrant officer in the Marines.

Building for a Lifetime Web Site - KIRO 7

The Building Industry is growing by leaps and bounds and there's never been a better time to pursue a career in the construction field.

KIRO 7 has launched an internet site "[Building for a Lifetime](http://www.kiro7.com/buildingforalifetime/)" to allow someone to find out about the many career possibilities.

<http://www.kiro7.com/sponsors/11250917/detail.html>

For more information on how to join Building for a Lifetime, Please email Melissa Pressley at mpressley@kiro7.com.

Early Care & Education Apprenticeship Committee hires New Training Director/Coordinator



Lynda Sysko, Training
Director/Coordinator Washington
Early Care & Education
Apprenticeship Program

There has been considerable discussion to revitalize the Early Care and Education Apprenticeship Program in Washington. Apprenticeship has been recognized as the most effective training system in our state, leading to high quality child care and wage/career ladder advancement. All child care apprenticeship programs combine classroom instruction with substantial, supervised, on the job training. Programs vary in length but involve college credit for training, require increased compensation, and continued educational opportunities for personal and professional growth for practitioners.

As the Washington State Early Care and Education Apprenticeship Coordinator, I was hired to revitalize the Apprenticeship Program which was created by a grant from the State of Washington, and to coordinate/direct the training for enrolled apprentices.

The Department of Labor and Industries' Non-Traditional Apprenticeship Section is the administrative arm of the Washington State Apprenticeship and Training Council. The Washington Apprenticeship and Training Council, Washington Department of Labor and Industries, has approved and holds on file the Standards of Apprenticeship adopted by the Early Care and Education Apprenticeship Advisory Committee. The occupations include Child Care Assistant/Associate I, Child Care Site Coordinator/Associate II, and

Educational Paraprofessional. The members of this Council represent business, labor, and the public.

The State Board of Community and Technical Colleges is the regulatory agency that provides the supplemental instruction towards the traditional degree, diploma, and certificate programs for occupations in Early Care and Education. Washington Association for the Education of Young Children holds the contract for the STARS Program (State Registry and Training System) which provides a central clearing house for training and recording training hours/credits. The Washington State Department of Early Learning monitors the interagency contract and provides support for ongoing progress of the Program.

The vision of Quality Care for Children is a statewide vision. The State of Washington now has in place the system to advance early care and education training for entry level practitioners-Early Care and Education Apprenticeship. Quality care is directly related to education and experience of the staff and providers. This sound statewide Apprenticeship Program is the key to increasing the level of professional development and quality of care for the children of Washington State.

Students, state urged to fill the void in the work force College isn't the only career option

By DAN RICHMAN, P-I REPORTER, SEATTLE POST-INTELLIGENCER, *November 28, 2007*

Washington's educational system must change to fill a growing gap between job openings and qualified workers, said a panel of 13 educators, businesspeople, labor representatives and students on Wednesday.

The consensus at a two-hour hearing convened by Sen. Patty Murray, D-Wash., and held in a packed auditorium at South Seattle Community College was that alternatives to four-year college degrees must be destigmatized and better publicized.

Otherwise, the state and the nation could lose jobs as employers look elsewhere for a skilled work force. And the one-third of all American students who don't make it past high school may lack a career path.

"It's very worrisome that we are not focusing all our attention right now" on the job-skills gap, said Murray, chairwoman of the subcommittee on Employment and Workplace Safety.

That gap is undeniable, speakers said.

- In 10 years, 60 percent of the state's 21,000 electrical workers will have left the work force, said Don Guillot, secretary-treasurer of the Washington State Association of Electrical Workers.
- Each year between now and 2012, about 3,900 jobs will open in Washington that require a computer science degree, but fewer than 700 such degrees are being awarded annually in the state, said Bob Drewel, executive director of the Puget Sound Regional Council.
- Washington has 87,000 job vacancies today, with 145,000 people looking for work but lacking the skills to fill those vacancies.

"There isn't a person at this table who wouldn't argue that education is the answer," said Drewel. "We just have to be smart about how we do it."

Terry Seaman, vice president of Seattle's Seidelhuber Iron & Bronze Works Inc., called for a full-scale vocational high school teaching both academic and job-oriented skills. Many school districts have dropped vocational programs from their high schools because they're too expensive, said Charles Mitchell, chancellor of the Seattle Community College District.

It's not just specific job skills people need to succeed in the workplace, the panelists said. They also need:

- Tips on basics such as showing up on time, personal grooming and appropriate dress, said David Harrison, a University of Washington professor.
- Communication skills -- even debate-team experience -- despite the emphasis on math and science needed to place students in high-tech jobs, said David Allen, an executive vice president at McKinstry Co., a construction and engineering firm.
- The ability to be creative, no matter what the field or job, Drewel said.

Alternatives to college aren't publicized enough, said Meisha Nash, now studying culinary arts, and David Steinhoff, who chose an electrical-wiring apprenticeship rather than college.

In his high school's career office, "the tech and vocational and apprenticeship information is shoved in the back, covered in dust and two years old," Steinhoff said. "So it's about getting the programs out there."

Some questioned the need for college degrees entirely.

"Not everyone in this room needs to go to college, especially in our industry," said Guillot, the electrical worker. "If you get into an apprenticeship program, in four years you're pulling down \$65,000."

At the least, a nationwide stigma over the failure to earn a four-year degree has to be overcome, said Rick Bender, president of the Washington State Labor Council.

"There are some tremendous opportunities that pay a good family wage, with health care and a pension" but that don't require a college degree, he said.

So is a liberal arts education valueless in today's work world? No, said McKinstry's Allen.

"I have lots of friends whose kids are calling me -- they have four-year liberal arts degrees from 'a small, East Coast college,' and now they want to figure out what they want to do," he said. "I don't think that's wrong, either, if it opens your mind."

The technical-training path and the college-bound paths shouldn't diverge too widely, so students can move easily from one to the other should they change their minds, said the UW's Harrison.

One example of that proximity, said newly minted electrician Steinhoff, can be found in his apprenticeship program, which he said lets participants earn an associate's degree at Pierce College with just a few additional classes.

After the session, Murray said she intends to hold similar hearings elsewhere in the state over the next year on behalf of the Senate Committee on Health, Education, Labor and Pensions. She said she will develop federal legislation to support the improvements that need to be made.

"It takes policy, resources and, most of all, a national conversation and focus, and I intend to use my committee to make that happen," she said.

Shipyard Program Still One of Oldest Opportunities Around

By Ed Friedrich, The Kitsap Sun, Friday, November 23, 2007

Students can complete a full-ride scholarship without leaving Kitsap County, and have a job literally waiting for them at the end.

Puget Sound Naval Shipyard's apprenticeship program is nothing new. It's been around for a century. Up to 8,000 people apply for 150 spots every year, yet it still flies under the radar.

"Sometimes I think it's one of the best-kept secrets around," said Bryan Watland, the program's administrator. "If you're going to be in this area, it's a can't miss."

There are no frat parties or football games, but you do get paid to earn a degree. Students start out making \$13.72 per hour, with benefits, and by the time they graduate from the four-year program are up to \$24.83.

During the first three years, they alternate between taking classes for two weeks and working at the shipyard for two weeks in a trade such as pipe fitter, electrician, welder or any of 25 other fields. After the third year, they receive an Associate's Degree in Technical Arts from Olympic College. The fourth year is all on-the-job training, after which they become journeymen.

Most other apprenticeships only pay a salary for the on-the-job portion of the training, not the classroom instruction, Watland said. And PSNS, working through Olympic College, is unique in having its trade theory courses accredited.

One hundred seventy-seven were selected four years ago for the Class of 2007. One-hundred fifty-six graduated in October with an overall grade point average of 3.8. Only 2 percent flunked out. Apprentice programs generally have a completion rate of about 50 percent, Watland said. Eight-three percent complete the shipyard's.

To get a foot in the door, be a "helper." Helpers work full-time at the shipyard and attend classes on their own time two nights a week. Eighty-five to 90 percent of recent apprentices started out that way. It gives aspiring apprentices an opportunity to show they are capable and interested.

"They get a chance to look at us and we get a chance to look at them," Watland said. "I would definitely tell anybody interested not to discount being a helper because that's what most of the people come in as and migrate to the apprentice program.

"The second thing I would tell an applicant is to be patient. A lot of good folks apply for jobs. Just because you don't get picked up right away doesn't mean you're not still in consideration."

Placement scores aren't as high for the four-quarter helper program, but the pay isn't as good, ranging from \$13.72 to \$18.50. About 200 helpers are hired throughout the year while all of the apprentices begin in October.

Apprentice classes are held in a year-old school on the second floor of the shipfitters shop. It features two labs each for physics, computer-assisted drawing and engineering, two math classrooms, two English classrooms, one for business management, several for trade theory, and a lecture hall. Until last year, courses were split between Olympic College and the shipyard. OC professors still teach the academic courses; trade instructors come from PSNS.

Students choose their trade when they apply. Job fairs in February can help them make up their mind.

Without the apprentice program, PSNS would be a much different place. Graduates make up about 25 percent of the work force and about half of the shop superintendents. More than 60 percent of graduates stay in federal service for more than 30 years.

"The one goal we put in front of all apprenticeships is to graduate. Then all of the opportunities the shipyard provides are open to them," Watland said.

"It's one of the best opportunities in the Pacific Northwest."

On the Web: To apply, go to www.psns.navy.mil and click on "Employment Opportunities" and "Student Training Program (Apprentice/Helper)."

New York's Construction Boom Puts More Women in Hard Hats

By ANNIE CORREAL, The New York Times, Published: November 26, 2007

Olga Aguilar walked through a tunnel of scaffolding at 6:30 a.m. on a recent weekday and into the Brompton, a 20-story condominium building going up at 86th Street and Third Avenue in Manhattan.

Passing groups of men in the lobby, she made her way into the basement and through a maze of plywood shacks, and opened the door to one of them in a corner.

Inside, there were none of the Playboy centerfolds that typically line construction shacks. Instead, there were vitamins, moisturizing creams and energy drinks.

The shack — a cross between a locker room and a tool shed — is reserved for women.

"This is unprecedented," said Ms. Aguilar, 31, who is one of four women working as apprentice carpenters at the Brompton.

Ms. Aguilar is part of a small but noteworthy shift in the construction industry: since 2005, more women have gone into the building trades in New York City than at any other period in history, according to trade union officials.

The women are training to be electricians, plumbers, steamfitters, ironworkers, bricklayers and, most often, carpenters. In the New York City District Council of Carpenters, 280 of

2,000 apprentices, or 14 percent, are women. Most are finding commercial construction jobs.

Though the work sites are decidedly male-dominated, the appearance of more women in hard hats is a result of a campaign by the city and some unions. In 2005, as a construction boom swept the city, Mayor Michael R. Bloomberg formed a commission to recruit members of minorities, military veterans, high-school dropouts and women into the building trades.

At the same time, local trade unions agreed to fill 10 percent of new positions in apprenticeship programs with women — the carpenter's union set its goal at 15 percent — and the State Department of Labor allowed women to jump to the front of the line when trade unions recruited apprentices instead of making them go through the traditional lottery system.

Two years ago, women made up 2.2 percent of the city's 175,400 construction workers, according to the United States Census Bureau. That figure has inched up to about 3 percent today, industry officials said.

"We have a construction boom and a commitment by the unions to employ women," said Amy Peterson, the local president of Nontraditional Employment for Women, a group that offers a free six-week training program in the building trades. "We can turn it around and make it not unusual to get women into construction."

This year, the group placed 158 women in building trades apprenticeships, compared with 139 in 2006 and fewer than 50 in 2000.

For many women, the building trades represent an escape from poverty. Apprentice wages start at about \$16 an hour, plus benefits. After a five-year apprenticeship, a carpenter makes about \$42 an hour.

For some, a construction apprenticeship also is an opportunity to start over. Yordanis Jusino, 23, took a plumbing class while she was serving a prison sentence for attempted murder and is now enrolled in night classes held by Nontraditional Employment for Women. "There's a big stigma," said Ms. Jusino, who lives in the Bronx and was 16 when she went to prison. "Everyone thinks that once you've been an inmate, you can't change." Elaine Stanley, 28, is a third-year apprentice at the Brompton and part of a different group of women going into the building trades: those who have college degrees or are changing careers. Ms. Stanley was teaching sixth grade in the Bronx but had not decided on a permanent career when she learned about the Nontraditional Employment for Women training program in 2005. "I was interested and open," said Ms. Stanley, who added that she had long found architecture-related careers to be appealing.

Ms. Aguilar used to be a night manager at a bar in the West Village. "I knew from growing up that working with my hands was something that I enjoyed doing," said Ms. Aguilar, who helped her father, a factory worker originally from Guatemala, renovate a building when she was a girl growing up in Chicago.

From 6:30 a.m. to 2:30 p.m. every weekday, the apprentices at the Brompton unload tractor-trailers, deliver materials, erect metal frames, lay down insulation and strap themselves into harnesses to hang and repair safety netting. "We started this building," Ms. Aguilar said.

Elly Spicer has a rare perspective on how the construction industry has changed. She has been a construction worker and an organizer in the carpenters' union for 22 years, and

there was a time, she said, that “if a woman set down her hard hat, she could pick it up to find a male co-worker had used it as a toilet.”

When Tamara Rivera, 41, became a carpenter’s apprentice in 1994, she said, foremen routinely ignored her when handing out assignments. Co-workers would call her “butch” or, conversely, “precious.” She often did not have a separate bathroom to use. “Sixty guys, and I would be the only girl,” she said. Now, she added, “you might still be the only girl, but the attitude is changing.”

There is a new camaraderie between men and women in unions that veteran women carpenters said was once unheard of. “They’re just happy that you can pull your weight,” said Eva Paz, 36, a second-year apprentice in the carpenters’ union, who has a “No Cry Baby” sticker on her hard hat.

Dane Finley, 50, a shop steward at the Brompton who has been a construction worker for 28 years, said: “When there’s ladies on the job, you can’t be animals, knuckleheads. It changes the way everyone acts.”

Pat A. Di Filippo, executive vice president of Turner Construction Company, one of the city’s largest general contractors, said: “Women are finding this is a business, that it is not the boys’ club it once was. It’s a business that needs people to perform tasks, and you’re a woman who can do that task.”

The foothold that women have gained during the construction boom may expand in the coming years. Developers working on large projects at the World Trade Center site and the Atlantic Yards complex in Brooklyn are aiming to employ a work force that is at least 15 percent women.

“As long as the industry remains strong, there will be continued opportunities for women and minorities to join the building trades,” said Louis J. Coletti, president of the Building Trades Employers Association, which represents 1,500 contractors in the city that employ union workers. But what will happen when construction slows is an open question.

“I do fear that,” said Ms. Stanley, the former teacher. “That’s why I try to learn as much as I can, so when that happens, I will have a reputation and people looking out for me.”