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ABSTRACT

This is a report on the worker retaining program administered by the Washington State Board for Community and Technical Colleges. The program provides job retraining to workers unable to find jobs in their current fields. Since 1993, the program has served more than 44,000 unemployed and displaced workers at 34 state community colleges and over 2,200 additional participants at 51 private career schools. The state legislature allocates over \$27 million to cover the costs of colleges offering classes and to assist the displaced workers financially. This report is the sixth review of the retraining program. Accomplishments for the program include: (1) over 53% of program participants are receiving training in high-wage fields like computer technology; (2) a new online service that provides information on the program, program completion, industries of employment, and potential earnings has been implemented; (3) over 22,000 program completers have been returned to the workforce; (4) program completers' average earnings are over \$12 per hour; and (5) job retention a year after initial placement is 88%. The report also shows that these workers have been placed in more than 475 of the largest companies in the state. Numerous tables are included. Appendices provide lists of 1998-99 completers by area, median wage, annual earnings, and the number of program participants at every community colleges and private career schools from 1994-2000. (MKF)

Worker Retraining

Sixth Accountability Report for the Worker Retraining Program

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December 2000



Washington State Board for Community and Technical Colleges

JC020438

EXECUTIVE SUMMARY

December 2000

Background: Since 1993, the Worker Retraining program has served 44,922 unemployed and dislocated workers at the public community and technical colleges and 2,299 at 51 private career schools. Funds to pay for the cost of offering classes and for modest financial assistance for about half the students are provided by the Washington Legislature.

In 1999-00 the Washington Legislature earmarked \$20.1 million in the community and technical college system's budget for enrollment "slots" (full-time equivalent students) at the colleges and private career schools. In addition, \$7.8 million was provided for financial assistance directly to some of the dislocated workers. An additional \$0.7 million supported the co-location of Employment Security Department staff at the colleges.

The Worker Retraining program assures that jobless workers have immediate access to job retraining for a new career if they are not able to find work in their current field. It also builds the capacity of colleges to provide training in high-demand, high-wage fields. Unemployed workers are required to pay tuition just like other community and technical college students. However, nearly half the students receive a small amount of financial assistance to cover tuition or other related costs.

This report, prepared by the State Board for Community and Technical Colleges, is the **sixth review** of the accomplishments of Washington's 34 two-year colleges under the provisions of the program. It provides detailed information about the program results. Copies of the first five reports are available in the publication section of the SBCTC web site at www.sbctc.ctc.edu.

This report is based on data from two main sources: 1) college enrollment records, and 2) unemployment insurance system data, which provides employment results.

Findings: *Colleges are increasing the focus on high-wage programs, especially by providing training to meet the growing need for technology workers.*

- When the program first began, just 42 percent of those in job preparatory training enrolled in high-wage fields. Last year that enrollment had increased to 53 percent. This trend applies across the state, including areas outside the technology corridor in Western Washington.
- Those trained in the higher-wage fields while at college earned 133 percent of the earnings of those in the middle- and lower-wage fields.
- Women, those with limited English proficiency, and to a lesser extent, those with less prior education select low-wage programs at a higher rate than other students.
- A new Internet-based resource provides students with information on program completion rates, earnings, wages, and industry of employment. The resource is specifically designed to answer the questions most often asked by potential students. The resource is available online at <http://www.jobtrainingresults.org/>.

Findings: The program is responsive to the ever-changing face of job loss in the state.

- Program enrollments move around from year to year in response to the layoffs. For example, new Worker Retraining students peaked in Southwest Washington in 1998-99 due to Hewlett Packard layoffs, while they peaked in the Spokane county region in 1994-95 due to layoffs at Keytronics, Jeld-Wen and Eastern State Hospital.
- While the program is currently funded to serve 6,200 FTEs (full-time equivalent students), colleges served 7,468 FTEs last year. Throughout the history of the program, colleges have served more workers than the funded level.
- Colleges need an annual minimum of 6,200 to 7,500 FTEs to serve the normal level of dislocated workers. During periods of recession, the FTEs needed to train dislocated workers are likely to increase above this level.

Findings: Colleges train workers for some 2,700 firms each year.

- Students from the class of 1998-99 gained employment at 1,452 of the state's smaller firms. Much of the economic growth today is in small firms employing 100 workers or less.
- Students gained employment in 475 of the state's largest firms (500 or more workers) and 718 mid-sized firms (100-499 workers).

Findings: Workers who participate in programs are finding good jobs at high salary levels.

- Since the program began, colleges returned 22,900 workers to jobs after participation in the Worker Retraining program.
- Those leaving the college at the end of 1998-99 gained employment at \$12.06 an hour (\$22,090 a year).
- At seven to nine months after training, those employed earned 119 percent of their former annual earnings rate if they had lost middle- and low-wage jobs, and 87 percent of the former earnings from higher wage jobs (those paying more than \$12.00 an hour before job loss).
- Seven to nine months after training, 82 percent of all Worker Retraining students were re-employed. That rate is higher than the nationwide rate of 79 percent employment for adults with some college training.
- Job retention a year after initial placement is 88 percent, a very high rate for dislocated workers.

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PARTICIPANTS AND FUNDING

The Washington state economy is marked by two contradictory characteristics: a rapidly growing economy that continually creates new jobs while at the same time firms close their doors or downsize. Unemployment has dropped to the lowest rate in several decades. In the midst of this good news, layoffs continue even in the fast-growing King County area. Elsewhere, job losses continue to be reflected in the employment statistics, especially in the service industries, retail trades, lumber and wood products, paper products, aluminum manufacturing, building and truck manufacturing.

This report, prepared by the State Board for Community and Technical Colleges, is the sixth review of the accomplishments of the Worker Retraining program of Washington's 34 two-year colleges. It provides detailed information about the colleges' performance.

Workers Served: In the seven years of the program, 44,922 unemployed workers were served at Washington's community and technical colleges and 2,299 were served in private career schools. In 1999-00, dislocated workers account for 82 percent of the 7,468 annual FTE in the Worker Retraining program at the colleges. Some 18 percent of the FTE were other unemployed workers. About two-thirds (67 percent) of the dislocated workers had been employed at their former job on a long-term basis, that is for at least a year and a half. Dislocated workers are those who, as a result of the changing economy, had little chance of returning to their former career.

The workers in the colleges were mostly white males (54 percent male and 79 percent white) about 8 years older than the typical workforce education student (median age of 39). Those served are a fairly well-educated population; half had been to college before and just 8 percent had not completed high school. Those in the private career schools shared similar characteristics though were younger (median age 31) and predominately female (61 percent).

Enrollments by college are provided in Appendix A, Table A-1. Appendix B provides data on private career school enrollments.

Characteristic	Workers Enrolled Over 7 Years of Worker Retraining	
	% of 44,922 at Community and Technical Colleges	% of 2,299 at Private Career Schools
Female	46%	61%
Male	54%	39%
African American	7%	9%
Asian/Pacific Islander	6%	4%
Hispanic	7%	4%
Native American	2%	2%
White	79%	80%
Less than High School	8%	4%
GED or High School Diploma	41%	52%
Some College	42%	40%
BA Degree or Higher	9%	4%
Under 30	21%	40%
30-39	32%	4%
40-49	30%	21%
50+	17%	8%
Median Age	39	31

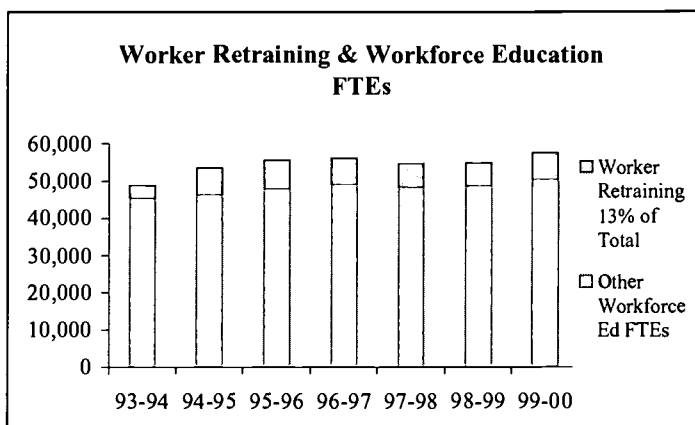
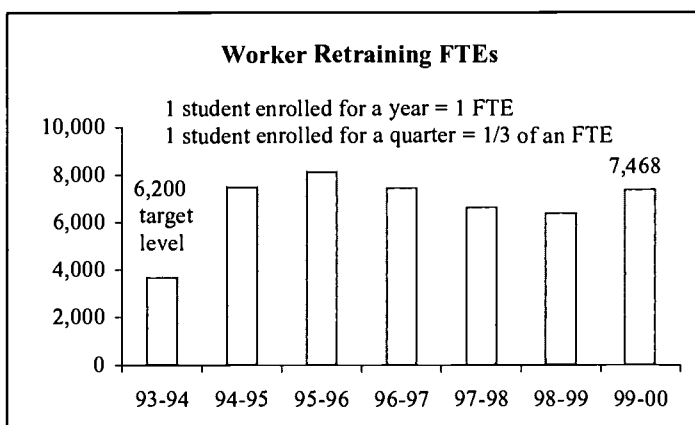
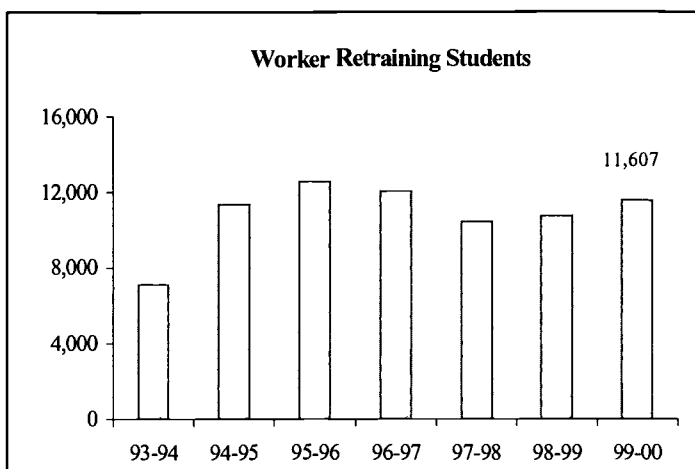
Seven-Year Trends: Enrollments increased dramatically in the first three years of the program, then declined due to re-employment of one of the state's largest firms (Boeing) and a decision to fund fewer enrollment slots in order to increase financial assistance.

While the program is currently funded to serve 6,200 FTEs (full-time equivalent students), last year it served 7,468. This pattern of serving above the funding limit is consistent with past years as colleges stretch to meet the needs of laid-off workers in their communities. One FTE is equal to one student enrolled full-time for three quarters or several part-time students combined. The typical Worker Retraining student enrolls for part of a year only, representing 60 percent of one FTE.

Worker Retraining students enroll in courses that are also available to all workforce education students. They represent 13 percent of the total workforce education effort. During the past seven years, the other 87 percent of the workforce education effort has grown, while the Worker Retraining program has increased and decreased in FTEs, as noted earlier.

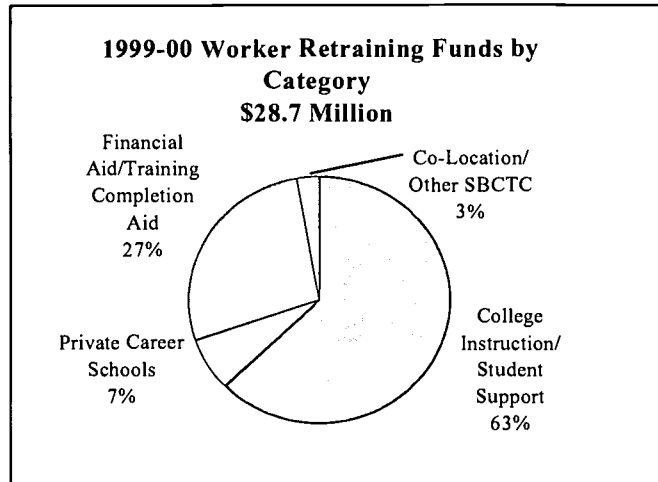
Unlike most of the other workforce education students, Worker Retraining students are referred by other agencies, primarily the local WorkSource offices. Students receive advising tailored to dislocated workers.

In most regards, however, Worker Retraining students are similar to the other workforce education students. Both pay the same tuition. Both depend on the state support of 75 percent of the cost of instruction to keep their tuition rates low. Worker Retraining students are equally race and ethnically diverse at 21 percent students of color.

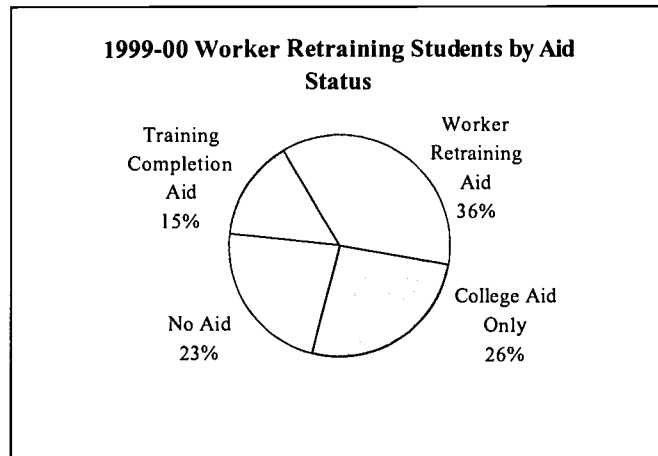


How Funds are Used: In 1999-00 colleges and private career schools were allocated \$28.7 million for the Worker Retraining program.

Most of these funds (70 percent) covered the cost of offering classes (teacher salaries) and student support such as advising and help with financial aid. Business and labor representatives on local advisory committees helped colleges to assess job demand and complete training program proposals. A state advisory committee makes recommendations to the SBCTC regarding which proposals should be funded. That advisory committee consists of business, labor, government and education representatives. State-level and local advisory committees help assure that the new programs best meet the local labor market demands.



Some 27 percent of Worker Retraining funds (\$7.8 million) provide direct aid to workers who could not otherwise afford training. All together, half of the workers enrolled (51 percent) received aid funded by the program. In addition, 26 percent received the regular financial aid available to all eligible college students but no aid from the program.

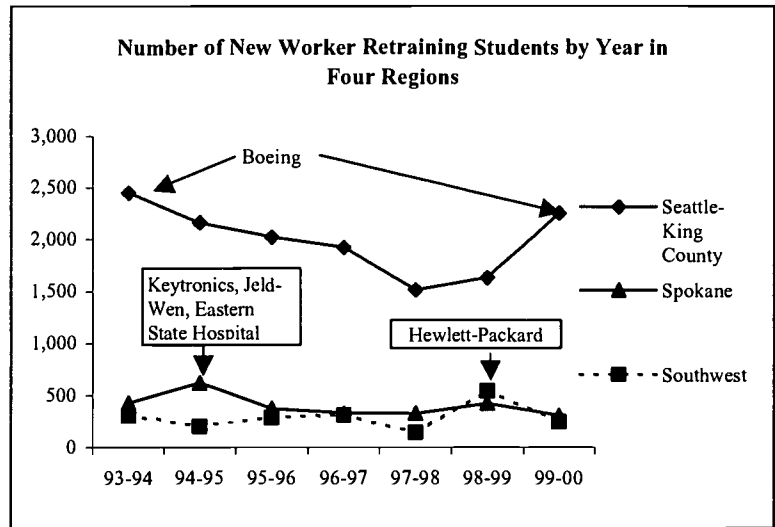


During the last year, 15 percent of students received Training Completion Aid. This aid helps workers complete their program when their unemployment insurance dollars end. The typical TCA level was \$2,120 to cover living expenses. More students, 36 percent, received Worker Retraining program assistance which is limited to tuition, books, childcare or transportation directly related to taking classes. The typical award was \$916 – sufficient for tuition and partial payment for books for one quarter.

SHIFTING PATTERN OF DISLOCATION

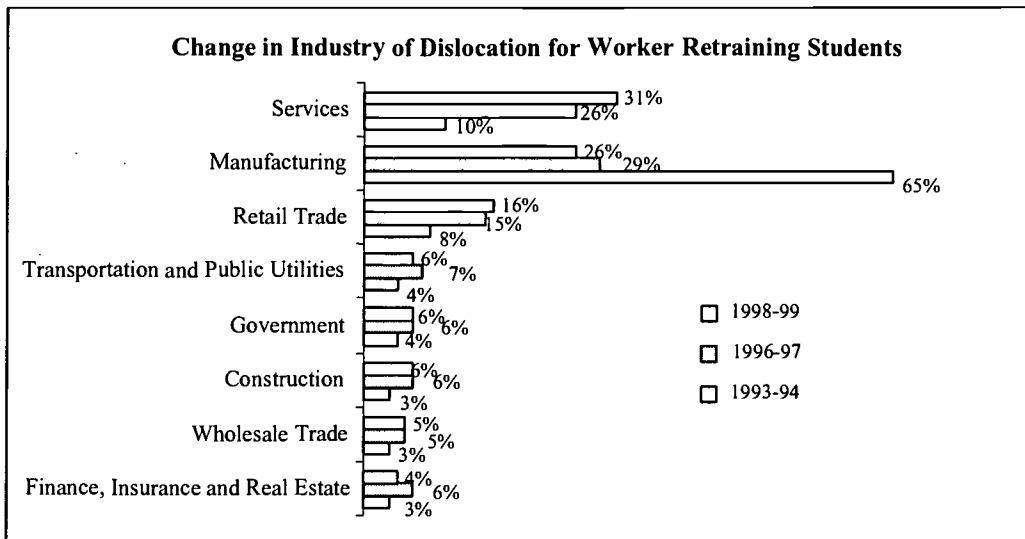
Enrollments Shift with Layoffs:

Colleges have Worker Retraining funds for a level of enrollment that responds to the typical rate of dislocation in the region. That level has been relatively constant since 1996-97, the year when the FTE level of the program was reduced to assure adequate financial support. When plant closures or large-scale layoffs occur, however, enrollments climb to meet the need. An "emergency setaside fund" allows the SBCTC staff the flexibility to shift resources to the area of need. Colleges also shift their own resources to increase enrollment slots above typical levels. A year or two after a major layoff, enrollments drop back to the level needed to respond to the typical rate of dislocation in the region.



Examples of this shifting pattern are seen in the enrollment peaks in King County in response to the Boeing layoffs. The Spokane County peak was in 1994-95 when three major employers, Keytronics, Jeld-Wen, and Eastern State Hospital, laid off workers. The southwest region (predominantly the Vancouver area) had an enrollment peak two years ago due to layoffs at Hewlett-Packard. Table A-2 in Appendix A follows the changing pattern of new student enrollments for all regions in the state.

The industries from which students are laid off also changed over time. When the program began, employment in the manufacturing sector in Washington state was declining rapidly. Most of the workers in the program came from manufacturing jobs. In more recent years, layoffs have increased in all other sectors. More students enrolled in 1998-99 came from the service sector (31 percent) than manufacturing (26 percent).



Outlook for Worker Retraining: Despite a forecast of at least four more years of continued healthy economic growth, declines in some industries and technological changes in others will result in a continuing demand for retraining. The state's *2000 Long-Term Forecast for Washington* (OFM, May 2000, www.ofm.wa.gov/long_term/2000/longtermtoc.htm) predicts a modest annual average growth of 1.5 percent in Washington employment to the end of this decade.

Despite overall growth, economists predicted that the following four industry sectors will employ fewer workers on a year-to-year basis in the coming decade:

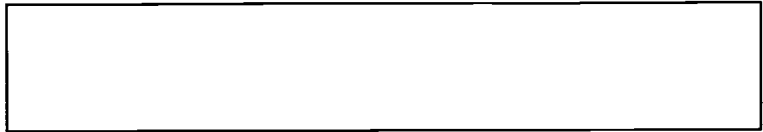
- Lumber and wood products
- Paper and allied products
- Ship building and truck manufacturing
- Aluminum products

Between now and the year 2010, the lumber and wood products industry is forecast to cut 2,000 more jobs. That represents a 30 percent decline over a 50-year period. At its height, the lumber and wood products sector represented 9 percent of all non-agricultural jobs in the state. At the end of the decade it will represent just 1 percent of the state's workforce. A similar pattern applies in the paper and allied products sector where 800 jobs are forecast to be lost out of the current total of 15,300 workers.

While smaller than the lumber and wood products sector, manufacturing jobs related to ship and truck building will decline by 2,000 workers in the coming decade. The forecast decline hinges partly on the expected negative impact on the state's ferry system of I-695. A small decline, already evident in a plant closure this year in Vancouver, is also expected in the aluminum industry as a result of rising electricity costs.

Economists also foresee that some workers in the wholesale and retail trade, transportation and utilities sectors are likely to lose jobs due to continued technological changes and restructuring. To return to work, dislocated workers from these industries will need updated skill training.

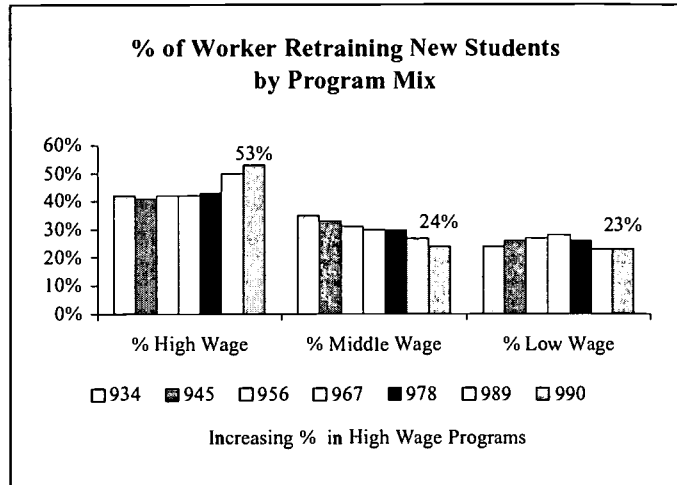
The fastest-growing sector in the Washington economy is the combined legal, business, engineering, management and accounting series—called “traded services” by economists. Microsoft and other prepackaged software makers are part of this industry sector. Many jobs in this fast-growing sector require specialized skills related to information technology.



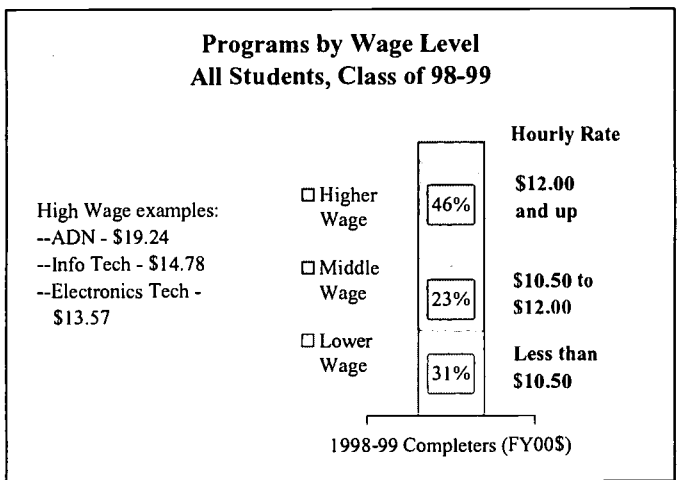
Shift to High-Wage Program: While Worker Retraining students are free to enroll in basic skills or any job-related training program of their choosing, students' choice is influenced by college

colleges have used Worker Retraining dollars and funds from other sources to

of students new to Worker Retraining in -00 (53 percent) enrolled in high wage programs.¹ 42 percent in high-1993-



-, middle or low wage categories based on the actual wages of programs. High- where the typical completer earned \$12 an hour or more when employed seven to programs by the typical wage level is included in Appendix C.



Which Workers Enroll in Low Wage Programs: A recurring theme in the formal and informal third party evaluations of the Worker Retraining

wages after college. The importance of the issue is evident in the data on outcomes described in the factor impacting student's earnings after college. Dislocated workers who trained in early childhood trained in electrical equipment repair. In general, those trained in the higher-college earned 133 percent of the earnings of those in the middle and lower-

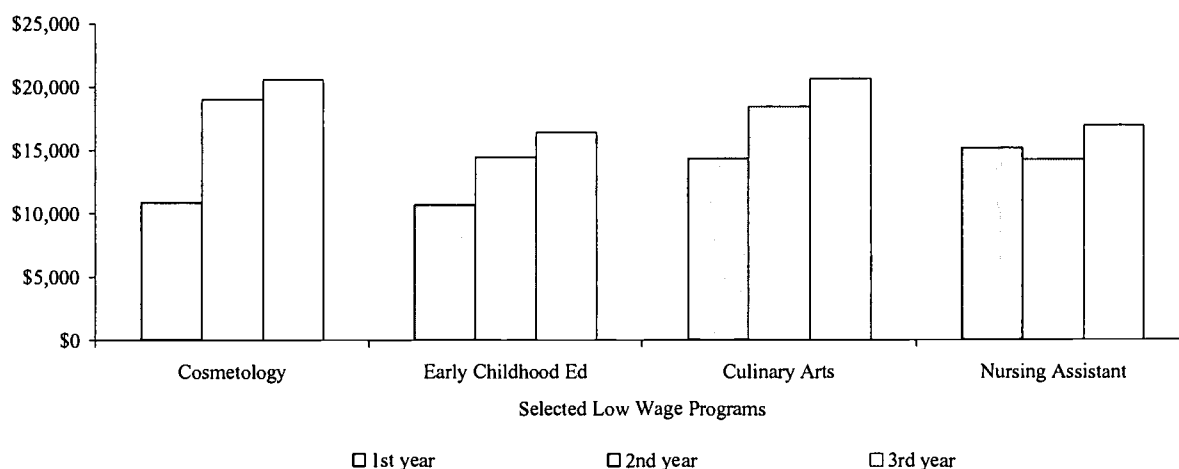
interest, the mix of programs available and the extent to which consumer information is available all

¹ The program mix analysis excludes basic skills and New Chance (career exploration). The number of students in -94.

Women, those with limited English proficiency, and to a lesser extent, those with less prior education select low-wage programs at a higher rate than other students. Some 41 percent of the women who left job preparatory Worker Retraining programs in 98-99 had enrolled in low-wage programs. That compares to just 13 percent of men. Likewise, 36 percent of those who had enrolled at some time in ESL classes and 29 percent of those who had not completed high school selected low-wage programs.

For some students, these programs allow entry into a field which may offer substantial advances in pay over the next few years. In other cases, the pay increases in the several years after college were small. While only a small number of Worker Retraining students enrolled in cosmetology programs, they started at low-wages and limited work hours. Over time, they increased both, nearly doubling earnings by the third year after college. While not as dramatic, those leaving early childhood education and culinary arts programs had similar substantial earnings growth in the several years after their training ended. Furthermore, about eight percent of the Early Childhood Education students re-entered college training while continuing to work in their second and third year after training. The rate of earnings growth for dislocated workers in the certified nursing assistant (CNA) programs was less by comparison.

Annual Earnings One, Two and Three Years After College, Worker Retraining Students Leaving Low Wage Programs Since the Program Began



It is not clear to what extent students understand the impact of their program choice on future earnings. In the past, information on earnings has not been readily available. Counselors had access to information on the wages of a typical worker by occupation, but little information on wages earned directly after college programs was available. Students, however, might not have discussed wage information with a counselor. Starting this year, students have a new source of consumer information that fills this information gap. A new Internet-based resource provides students with information on program completion rates, earnings, wages, and industry of employment. The resource is specifically designed to answer the questions most often asked by potential students. The resource is available online at <http://www.jobtrainingresults.org/>. An example of the information available is shown for the Nursing Assistant Program at Clover Park.

Industry of Employment - Netscape

File Edit View Go Communicator Help

Back Forward Reload Home Search Netscape Print Security Stop

Bookmarks Location: <http://www.jobtrainingresults.org/Main/industry.asp?CollID=1290&ProgID=511614> What's Related

U.S. Department gopher://gopher Other Relevant INTERNET RESOUR Enrollment by C Washington Stat Returns to Ed

Employment and Wages

Student Characteristics

Additional Program Info

Narrative Report

Other Programs at this School

Other Schools with this Program

Site Index

College Home Page

Clover Park Technical College
Nursing Assistant Program
<http://www.cptc.ctc.edu/cptc>
 For Academic Years: 1996, 1997, and 1998

Wage Statistics for Program Completers Employed in Specific Industries

Counting all employment, whether in field trained for or not; excluding all self-employment and employment outside of the Northwest.

View Totals

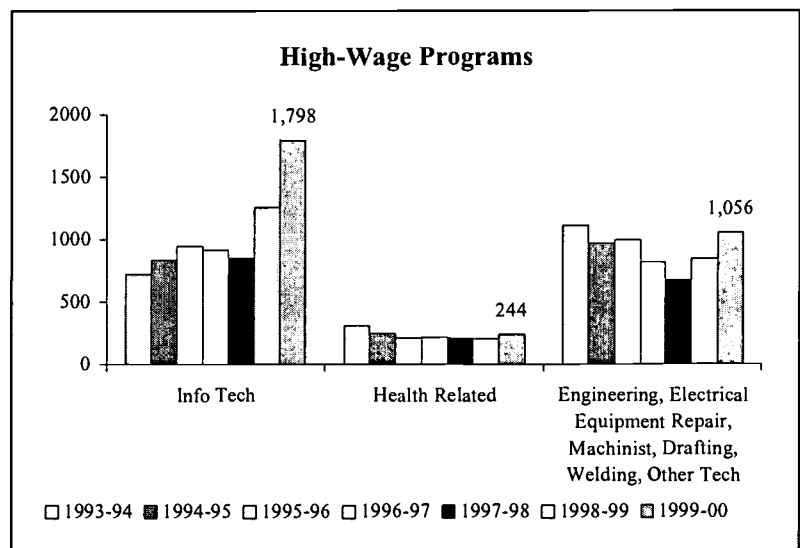
For additional information about any of the underlined> words on this page, click on that word.

Industry	Below \$8.50	\$8.50 - \$11.48	\$11.50 +	[wage not available]	Total
Nursing Homes/Care Facilities	16	1	-	-	17
Temporary and Permanent Employment Agencies	3	3	-	-	6
Hospitals	-	1	4	-	5
Residential Social Services, or Residential Treatment Programs					4*
Outpatient Care Facilities					2*
Mens And Boys Furnishings					1*

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Information Technology: Most of the growth in high-wage programs has been confined to the fast growing information technology field. Community and technical colleges offer training in six key information technology areas:

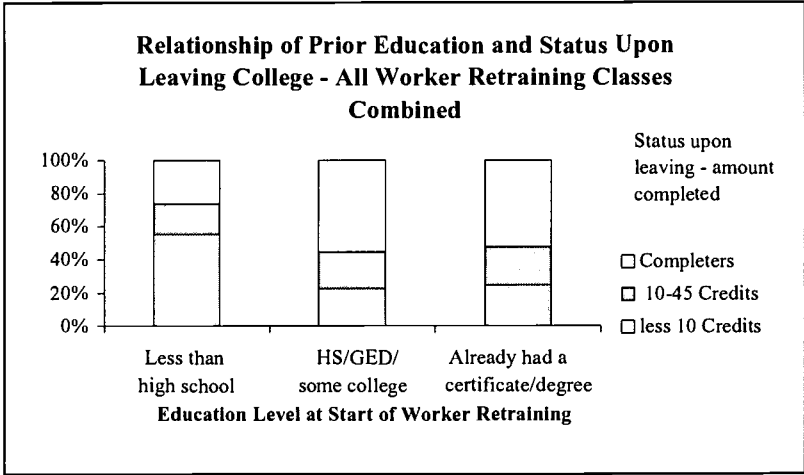
- Network Support
- Programming
- Technical Support
- Web Multimedia Authoring
- Digital Animation and Graphics
- Technical Communications



OUTCOMES

Outcomes data are provided on those students who have been out of college long enough to identify outcomes. This includes students who completed training and those who left before completing programs. As of spring 1999, some 28,400 students have been out of college long enough to observe their post-training status. For the 1998-99 group, 5,790 students have been out of college long enough to observe outcomes.

Educational Outcomes: Worker Retraining students enter college with substantial previous work experience and quite varied educational experiences. Given their background, some students need only enroll in a few courses to prepare for a new job. Others need to complete years of education starting at the basic skills level before being competitive for jobs with salaries similar to those they had before. Given this diversity, the educational outcomes of the Worker Retraining program are best examined separately for those who entered without a high school diploma, those with a high school diploma but no college degrees or certificates, and those who already had completed some level of college education prior to their job loss.



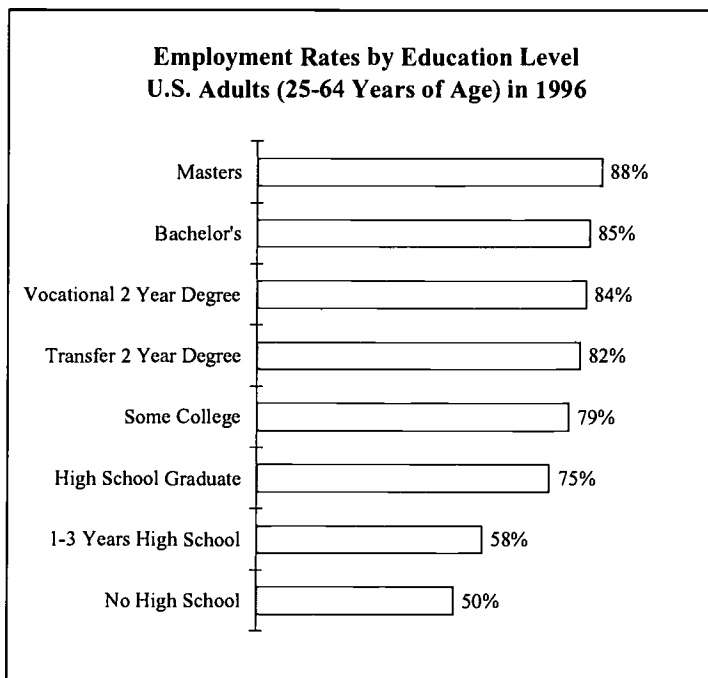
The majority of those who had completed high school before the job loss completed training. The group with the most education prior to the job loss was more likely to complete some credits rather than a full program. About 75 percent of those without a high school diploma at the time of job loss were able to complete the needed basic skills and at least some credit classes, though not a full program. Twenty-five percent of that group completed a vocational program.

Employment Outcomes: Consistent with data in past reports, students in the four most recent years continue to be employed at high rates and to gain wages close to the level during their former employment.

**Employment, Wages, Recovery Rates and Job Retention of Program Participants
Seven to Nine Months after Training**

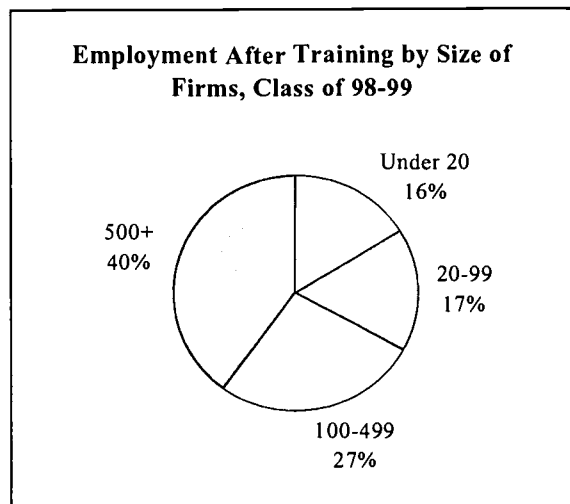
	95-96	96-97	97-98	98-99
Number of Students Leaving Program	5,163	5,707	6,384	5,790
Number Employed	4,167	4,659	5,174	4,722
Percentage Employed	81%	82%	81%	82%
Median Wage per Hour (in FY00\$)	\$10.36	\$9.63	\$11.53	\$12.06
Median Estimated Annual Earnings (FY00\$)	\$21,171	\$20,481	\$20,963	\$22,090
High-Wage Earnings				
Wage Recovery Rate	82%	85%	84%	86%
Earnings Recovery Rate	81%	84%	81%	85%
Middle and Low Earnings				
Wage Recovery Rate	108%	109%	118%	122%
Earnings Recovery Rate	99%	106%	114%	124%
Job Retention	87%	88%	87%	88%

The placement rates of Worker Retraining students are very similar to the rates of all adults with the same education levels. As the graph indicates, adults² with less than an associate degree but with some college education are employed at a 79 percent rate nationally. Those with vocational degrees have an 84 percent placement rate. Adults who are not employed include those who are unemployed, at school or managing a home.

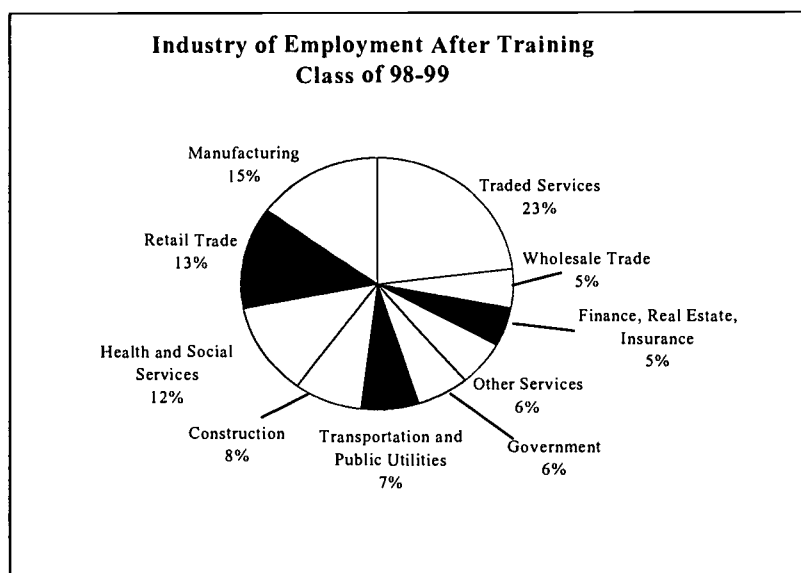


² The data for this analysis are based on the Census Bureau's Current Population Survey. Similar data for Washington are not available.

Firm Size and Industry Sector: About one-third of the class of 98-99 gained employment in firms employing 100 or fewer workers. Some 1,452 of the state's smaller firms have benefited from the Worker Retraining program by hiring workers from the program. At the same time, 718 firms with between 100 and 499 workers hired former students from the 1998-99 group. Some 475 of the state's largest firms (more than 500 workers) hired students from the program.



More students gained employment in the "traded services" sector than in any other industry area. Traded services include business, legal, engineering, management and accounting services. After training, most workers left the industry sector from which they were laid off. Those who worked in construction and health and social services were most likely to stay in those sectors, with 42 percent staying in the same sector. All other industry sectors gained from the layoffs from other sectors, but the traded services had the most gains. Some 26 percent of former transportation workers moved to the traded services, for example. Some 19 percent of former manufacturing workers moved to that sector. Jobs in the traded services are highly dependent on up-to-date information technology skills.



Earnings and Wages: The \$22,090 earnings and \$12 an hour wage for the class of 1998-99 represent the typical outcome. Results, however, vary by student age, gender, employer size, area of study and industry of employment. As is typical in the workforce in general, men earn more than women, those 20-29 earned less than older students, and the more credits a student completed, the higher their post-college earnings. Those completing a degree earned \$12.89 an hour compared to \$11.01 for those leaving after enrolling for just one quarter.

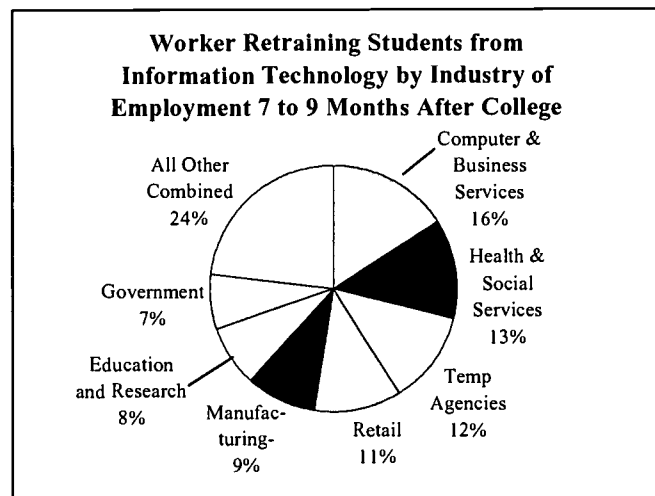
**Wages and Earnings (in FY\$00) 7 to 9 Months After College by Student Characteristics,
College Program, Region, Industry Size and Industry Sector
Class of 98-99**

Student Characteristics	Hourly Wage	Estimated Annual Earnings	Region Where Trained	Hourly Wage	Estimated Annual Earnings
Men	\$13.15	\$25,254	Seattle-King County	\$13.70	\$26,223
Women	11.16	20,408	Tacoma-Pierce County	12.11	23,586
20-29	11.53	20,990	Snohomish County	12.98	23,061
30-39	12.51	22,823	Southwest Washington	12.21	22,951
40+	12.15	22,692	Benton-Franklin	12.14	22,263
With disabilities	10.42	17,425	Northwest Washington	11.55	21,181
Completed one quarter or less	11.01	20,706	Pacific Mountain	11.48	20,721
Completed 2 or 3 quarters	11.80	21,699	Spokane Area	11.19	20,484
Completed more than 1 year	12.28	22,953	Eastern Washington	9.84	18,569
Completed a degree	\$12.89	\$23,791	North Central Washington	9.84	17,793
			Olympic	10.57	17,279
			Tri-County	\$8.75	\$14,977
College Program					
Construction Trades	\$19.48	\$37,517			
Electrical Equipment Repair	15.08	29,599	Size of Firm Where Employed		
Engineering Tech	15.00	28,589	Less than 5 Employees	\$11.21	\$17,624
Computer maintenance Tech	14.51	27,195	5 to 9 Employees	11.00	18,267
Associate Degree Nurse	17.48	27,066	10 to 19 Employees	11.63	20,061
Machinist	14.64	27,021	20-49 Employees	11.81	22,121
Welding	15.42	26,911	50-99 Employees	12.25	23,410
Drafting	14.42	26,629	100-249 Employees	12.14	23,009
Industrial Tech (except electronics tech)	14.44	26,163	250-499 Employees	12.08	22,990
Paramedic EMT, Operating Tech	11.94	25,588	500 to 1,000 Employees	12.21	22,238
Info Tech other than computer maint	13.60	25,476	1,000 or More Employees	\$12.96	\$24,229
Transportation Operators	12.67	25,014			
Protective Services	13.13	24,714	Industry of Employment After College		
Precision, Production, Crafts	12.15	23,129	Manufacturing	\$14.10	\$28,488
Practical Nurse	13.83	23,116	Government	13.58	27,816
Electronics Tech	14.58	23,022	Transportation and Public Utilities	13.87	26,400
Other Technical	13.40	23,013	Construction	15.22	25,511
Accounting	11.56	22,739	Finance, Insurance & Real Estate	12.72	24,454
Other Health Tech	12.69	21,961	Wholesale Trade	11.48	22,635
Legal Assistant	11.18	21,086	Health and Social Services	11.84	20,990
Ag, Forestry and Fisheries	11.16	21,063	Educational, Research Legal Services	11.70	20,257
Auto Diesel	11.51	20,428	Business Services	11.53	19,572
Marketing and Sales	12.30	20,411	Other Services	10.06	17,773
Basic Skills/New Chance	11.18	20,257	Retail Trade	\$ 9.08	\$16,115
Administrative Support	10.48	20,106			
Teaching Assistant/Social Services	11.33	20,071			
Managerial and Managerial Support	10.94	19,817			
Culinary Arts	9.04	16,573			
Medical Assisting	10.07	16,157			
Nursing Assistant	9.30	13,052			
Early Childhood Education	\$ 8.90	\$10,802			

Those who worked in the government and manufacturing sectors garnered the highest post-college wages. In general, the larger the firm, the higher the wages. The exception was for former students employed in firms with 50 to 99 workers. Those students had the second highest wages.

Students gaining employment after training in construction, electronics equipment repair and engineering programs earned twice as much as those training in nursing assistant and early childhood education programs. While earnings vary by region, from a low of \$14,977 to a high of \$26,223, regional variance was less than the earnings differences due to program choice.

Information Technology Outcomes: Most of the growth in high-wage programs has been in information technology training. This past year, 735 students moved from information systems programs to the job market, compared to just 145 students during the first year of the Worker Retraining program. This is the single largest and fastest growing program area for Worker Retraining students. The typical student from an information systems program earns \$13.03 an hour (\$26,200) in the year right after college. Students from Information Technology programs obtain employment in all industry sectors. Just 16 percent work directly in software or other business service firms.



Job Retention: Class of 1998-99 Worker Retraining students had a high rate of job retention in the full year after training. Some 88 percent of that group were still employed a year after the first follow-up. Additionally, some 552 of those who were not working in “covered” (UI) employment in the first six to nine months after the program had gained such employment a year later.

Worker Retraining Students in UI One Year After 1st Follow-up

	1994-95	1995-96	1996-97	1997-98
In UI data at 1st Follow-up	2,654	3,780	4,244	4,703
In UI 1 Year Later	2,309	3,341	3,695	4,125
Retention Rate	87%	88%	87%	88%
Number not in UI in 1st Follow-up, in UI 1 Year Later	392	457	422	552

Those not found in “covered” (UI) employment may have moved outside the Northwest region, become self-employed, left the workforce (retired, homemakers or discouraged workers), or were unemployed at the time of the second follow-up.

Earnings and Wage Recovery: The Worker Retraining program is designed to minimize the long-term loss in earning power that frequently results from layoffs and closures. Without well-tailored retraining, dislocated workers have been found to earn only 75 percent of what they might have earned had the layoff not occurred. Since its inception, the Worker Retraining program has helped

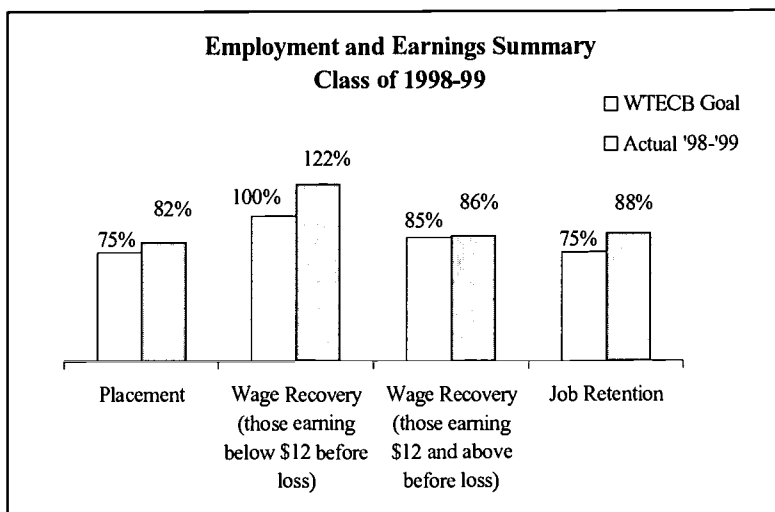
former high-wage workers earn between 81 and 86 percent of their pre-job-loss level.³ For those employed in middle- and low-wage jobs before their layoff, the program has helped workers return to jobs paying more than their pre-job-loss level.

Earnings and Wage Recovery Rates

Higher-Wage Workers (earned at least \$12 an hour in FY00\$ before job loss)	1995-96	1996-97	1997-98	1998-99
Pre-Dislocation Wage	\$19.14	\$16.44	\$16.13	\$16.68
Post Training Wage	\$15.41	\$14.01	\$13.75	\$14.35
Wage Recover Rate	82%	85%	84%	86%
Pre-Dislocation Earnings	\$34,553	\$31,686	\$31,349	\$32,089
Post Training Earnings	\$28,018	\$26,611	\$25,425	\$27,245
Earnings Recover Rate	81%	84%	81%	85%
Middle- and Lower- Wage Workers (earned less than \$12 an hour in FY00\$ before job loss)				
Pre-Dislocation Wage	\$8.70	\$8.68	\$8.68	\$8.55
Post Training Wage	\$9.43	\$9.50	\$10.23	\$10.40
Wage Recover Rate	108%	109%	118%	122%
Pre-Dislocation Earnings	\$16,262	\$16,463	\$15,745	\$15,212
Post Training Earnings	\$16,083	\$17,423	\$17,920	\$18,894
Earnings Recover Rate	99%	106%	114%	124%

Note: All wages and earnings are in FY00\$.

Summary of Outcomes: When this program began, the Workforce Training and Education Coordinating Board (WETCB) established goals for the outcomes of this program.⁴ The 1998-99 group exceeded those outcome goals, as have those who left the program from earlier years.



³ Pre-Post analysis is based on earnings and wages five quarters before job loss versus three quarters after. The WTECB has recently developed a new protocol related to wage recovery, however SBCTC does not yet have all the data needed to follow the new protocol. The approach used in the report approximates that new protocol as closely as possible.

⁴ The original wage recovery rates were based on \$8 an hour. These have been updated to \$12 consistent with high-versus low- and middle-wage program categories.

SUMMARY

This sixth accountability report provides evidence that community and technical college training for unemployed and dislocated workers is **relevant** to the training needs of the State of Washington and to the workers in the program, and the program is **responsive** to the changing economy both in terms of where the training is offered and in the increasing focus on high-wage training programs.

Most of the workers served had a long tenure with a firm that either had closed its doors or had downsized. Job loss of this type typically has negative impact on future earnings. The Worker Retraining program exists to mitigate, to some extent, this negative impact of job loss by quickly aiding workers to learn the skills needed for today's job market.

Results from the six SBCTC accountability studies show that retraining is rewarding for most workers. This past year, 82 percent became employed within seven to nine months after leaving training. Workers obtain jobs that provide them with 86 to 122 percent of their inflation-adjusted hourly wages before their job loss, depending on their wage level prior to job loss. Not only do students obtain jobs at high wages but they also keep them. The job retention rate was 88 percent.

The earmarked funds for this program primarily pay for instructors' salaries, and for program equipment and supplies. In addition, the Worker Retraining program offers Training Completion Aid that provides living expenses to 15 percent of those enrolled. Another 36 percent received assistance with tuition, childcare or transportation costs, but rely on unemployment insurance or other family income for living expenses.

Although the state's overall economy is healthy, layoffs and plant closures continue. Even in a strong economy the demand for retraining continues.

ACKNOWLEDGMENTS

The accountability efforts of the SBCTC are being conducted with the help of many SBCTC staff members. Dan McConnon, Director of Workforce Education, is the staff lead for the Worker Retraining program. The lead staff member for the accountability report is Loretta Seppanen, Senior Research Manager. Carmen Grose maintains the Worker Retraining database and manages the many data match processes required. Sandy Main created a web-based mechanism for data collection from the private career schools. Pat Ward coordinates contracts with the private career schools. Carla McNight maintains data on workforce allocations to colleges. Linda St Jean formatted the report document.

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APPENDIX A

Data Sources, Related Studies, Glossary and Detailed Tables

Data Sources

The accountability analysis is based on data drawn from a number of different sources. Most important sources in this analysis are:

SBCTC Worker Retraining Database: Based on individual student enrollment records, this database provides considerable background information on the 44,922 students who enrolled under the terms of the Worker Retraining program. This file also includes data from the Unemployment Insurance system on pre-job loss employment and employment after leaving the colleges. The UI data used here is analyzed and presented in a manner consistent with the procedures established by the Workforce Training and Education Coordinating Board (WTECB).

Related Studies

The Worker Retraining program has been one of the most thoroughly examined programs at the colleges and in all of state government. In addition to these accountability reports prepared by SBCTC, the following third-party studies have been undertaken:

- **Westat Net Impact Study.** This study provided extensive analysis of the comparative outcomes for those in training and those who did not participate. The Workforce Training and Education Coordinating Board published results in 1997 on their web site (<http://www.wa.gov/wtb/westat.html>). The study found a small positive impact on worker employment rates (0.4 percent) and a larger positive impact on earnings (3 percent). The study found that these benefits were especially positive for the subset of workers who took science, math, technology, trades, and health occupations courses. Those who took courses in sales and services, however, had lower earnings than they might have gained by going directly back to work.
- **Joint Legislative Audit and Review Committee (JLARC) Workforce Employment and Training Program Sunset Review (12-1-97).** This study reviewed other studies and previously unpublished data about the outcomes of the program. The sunset report concludes that the program is providing a needed service to dislocated workers and recommends it should continue. Further the report recommended that: 1) Training should be targeted toward higher paying jobs and, 2) a method should be created to provide expected earnings information to students on various courses of study. The report also commented on the services provided by the Employment Security Department. (The online source for more information is <http://jlarc.leg.wa.gov/OnePgrs.htm>).

Glossary

Student FTE: One annual FTE is the equivalent of one student enrolled for 45 credit hours or its equivalent in contact hours in a year.

Headcount: Count of each student just once since the program began regardless of how many times that student may re-enroll.

Dislocated worker: Workers laid off from declining industries or declining occupations. Students are referred to the program from the Job Training Partnership Act (JTPA) and Trade Re-adjustment Act (TRA) and other similar programs. Each program used its own criteria to determine eligibility for dislocated workers.

High-wage programs: SBCTC divides programs into two groups based on the Classification of Instructional Programs (CIP) code of the course. The CIP code is a standard coding system used nationwide for all levels of education. Community and technical colleges assign a code to each program based on the subject matter covered. The SBCTC regards a program as high-wage if the typical graduate earns \$12.00 an hour or higher. The following programs are high-wage programs for workers being retrained:

Aircraft Mechanics
Auto/Diesel Technicians
Construction Trades
Equipment Operators
Equipment Repair
Graphic Arts

Health Occupations
Information Technologies
Legal Assistant
Protective Services
Science Technologies
Welding

Lower-wage programs: Worker Retraining students in these programs typically earned less than \$10.50 an hour.

Retail Sales
Secretarial, Clerical
Library Assistant
Teaching Assistant
Early Childhood Education

Commercial Food Service
Cosmetology
Hospitality
Horticulture
Marketing

Table A-1
Worker Retraining FTEs by College

	1st Year 1993-94	4th Year 1996-97	7th Year 1999-00
Bates	142	301	367
Bellevue	79	248	238
Bellingham	38	75	86
Big Bend	17	52	59
Cascadia*	0	0	0
Centralia	79	224	221
Clark	94	352	380
Clover Park	288	387	455
Columbia Basin	9	266	169
Edmonds	182	283	352
Everett	182	183	352
Grays Harbor	296	518	152
Green River	218	366	374
Highline	80	194	200
Lake Washington	76	152	319
Lower Columbia	71	22	61
Olympic	113	243	221
Peninsula	45	287	321
Pierce	111	190	287
Renton	212	334	331
Seattle Central	210	208	159
Seattle North	130	233	283
Seattle South	120	267	304
Seattle Voc Institute	20	32	35
Shoreline	99	185	223
Skagit Valley	94	242	210
South Puget Sound	114	280	138
Spokane	182	232	264
Spokane Falls	57	138	83
Tacoma	88	244	251
Walla Walla	56	342	308
Wenatchee Valley	30	116	138
Whatcom	38	62	23
Yakima Valley	148	227	107
SYSTEM TOTAL	3,718	7,488	7,468

Totals may not add due to rounding.

Source: SBCTC Data Warehouse, Student Table for Worker Retraining (work attend = 80-82).

Table A-2
New Worker Retraining Students by Region

	93-94	94-95	95-96	96-97	97-98	98-99	99-00
Seattle-King County	2,449	2,163	2,025	1,925	1,513	1,631	2,252
Tacoma-Pierce County	1,067	1,035	982	901	798	771	954
Snohomish County	746	682	352	406	299	369	749
Olympic	325	364	592	598	508	429	673
Pacific Mountain	905	616	982	686	568	370	400
Benton-Franklin	21	375	487	289	258	263	341
Spokane Area	433	625	378	333	331	427	310
Northwest Washington	342	355	274	299	241	244	294
Southwest Washington	306	209	292	315	149	547	251
Eastern Washington	163	211	252	225	198	277	172
North Central Washington	83	95	91	262	200	170	120
Tri-County	251	211	184	239	217	157	120
Total	7,091	6,941	6,891	6,478	5,280	5,655	6,636

APPENDIX B

Private Career School Students

Enrollments: In addition to those enrolled at the colleges, some 2,299 individuals have been served with Worker Retraining funding at 51 private career schools. Private schools receive funds to serve students after the Workforce Training and Education Coordinating Board (WTECB) approves proposals from the schools.

Private Career School Students by Program 1994 to 2000

Program of Study	Number of Students
Administrative Support	781
Massage	342
Medical Assisting	257
Information Tech	173
Cosmetology	136
Transportation Operators	120
Construction Trades	77
Pharmacy Assisting	68
Computer Maintenance Tech	64
Dental Assisting	54
Professional Diving Tech	51
Marketing and Sales	43
Heating/Air Conditioning/Refrigeration	16
Drafting	15
Telecommunications	15
Instrument & Control Tech	9
Electronics Tech	7
Veterinarian Assistant	6
Marine Carpentry	5
Legal Assistant	5
Medical Xray	5
Protective Services	4
Machinist	3
Cadet Instructor - Cosmetology	2
Accounting	2
Graphic arts/printing	2
Optometric Tech	2
Culinary Arts	1
Paramedic EMT, Operating Tech	1
Building and Grounds Maintenance	1
Program not identified	32
Total	2,299

**Private Career School Students by School
1994 to 2000**

School	Number of Students	School	Number of Students
Business Computer Training Institute	496	A to Z Computer Office Training	5
Eton Technical Institute	312	Global Network Technologies	5
Seattle Massage School	293	Alexander School of Natural Therapy	5
Interface Computer School	151	NW School of Wooden Boatbuilding	5
Court Reporting Institute	139	Mount Vernon Beauty School	5
American College of Professional Education	126	Crown Academy	5
Gene Juarez Academy of Beauty	97	Lillie Rice School of Business Technology	4
Bryman College	91	Maser's Academy of Fine Grooming	4
Perry Technical Institute	61	Academy of Legal Investigators	4
National Transportation Training & Consulting	59	Specialty School	3
West States Operating Engineers Institute of Training	58	American Institute of Medical Science	2
Northwest Career Training Center	56	Apollo College	2
Divers Institute of Technology	51	Inland NW Heating/Ventilation & Air Conditioning	2
The Hair School	28	Spectrum Center	2
PIMA Medical Institute	27	Fox Travel Institute	2
Computer Learning Centers	24	Resource Center for the Handicapped	2
ITT Technical Institute	24	Northwest School of Massage	2
International Air Academy	23	SST Travel Schools of Washington	2
Brian Utting School of Massage	17	New Horizons Computer Learning Center	1
Summit Educational Services	14	Bellevue Massage School	1
BodyMind Academy	13	Art Institute of Seattle	1
Western Business College	11	Glen Dow Academy	1
Brenneke School of Massage	8	Port Townsend School of Massage	1
Chetta's Academic Hair/Nails	7	Yakima Valley OIC	1
Technical Training Institute	7	Adams Career Solutions	1
Sage Technical Services	5	School Not Identified	33
		Total	2,299

APPENDIX C

Class of 98-99 Completers by Major Area of Study and Median Wage and Earnings

	Program Area	Completers	With Wage Data	Median Wage	Annual Earnings	
High-Wage Programs	Dental Hygienist	106	101	\$34.11	\$50,057	
	Associate Degree Nurse	848	688	\$19.24	\$34,654	
	Medical Xray	117	101	\$17.60	\$38,475	
	Information Technology	1,420	997	\$14.78	\$28,570	
	Other Health Tech	225	171	\$14.57	\$26,541	
	Computer Maintenance Tech	327	237	\$14.34	\$27,839	
	Engineering Technology	147	109	\$14.17	\$27,782	
	Electrical Equipment Repair	253	187	\$14.06	\$26,460	
	Industrial Technology (except electronics tech)	405	248	\$14.01	\$29,132	
	Welding	210	157	\$13.93	\$24,842	
	Electronics Technology	295	223	\$13.57	\$27,197	
	Practical Nurse	406	333	\$13.37	\$24,182	
	Airframe/Power Plant	123	83	\$13.26	\$27,592	
	Physical Therapy	80	70	\$13.14	\$24,262	
	Med Lab Tech/Histologic	61	48	\$12.94	\$23,620	
	Paramedic EMT, Operating Tech	309	228	\$12.59	\$26,079	
	Drafting	193	153	\$12.54	\$25,103	
	Occupational Therapy	49	39	\$12.48	\$20,596	
	Transportation Operators	289	225	\$12.43	\$24,661	
	Legal Assistant	344	263	\$12.18	\$23,362	
Protective Services	556	430	\$12.09	\$22,621		
Machinist	252	209	\$12.08	\$23,277		
	Total High Wage Programs	7,015	5,300	\$14.30	\$27,352	
	% of Total	46%	48%			
Middle-Wage Programs	Construction Trades	236	159	\$11.96	\$20,381	
	Pharmacy Assisting	123	99	\$11.64	\$22,197	
	Accounting	517	394	\$11.60	\$22,539	
	Dental Assisting	229	190	\$11.49	\$19,444	
	Precision, Production, Crafts	413	252	\$11.43	\$21,313	
	Other Health Services	184	102	\$11.25	\$13,952	
	Auto Diesel	644	473	\$11.04	\$21,795	
	Other Technical	189	120	\$10.87	\$16,901	
	Medical Assisting	233	190	\$10.84	\$19,851	
	Commercial & Graphics Art	263	179	\$10.69	\$19,758	
	Managerial and Managerial Support	520	346	\$10.52	\$19,144	
		Total Middle Wage Programs	3,551	2,504	\$11.14	\$20,670
		% of Total	23%	23%		
Low-Wage Programs	Agriculture, Forestry and Fisheries	441	262	\$10.49	\$18,328	
	Social Services	366	238	\$10.26	\$17,986	
	Administrative Support	1,619	1,165	\$10.13	\$19,272	
	Marketing and Sales	687	455	\$10.11	\$17,365	
	Veterinarian Assistant	72	61	\$9.84	\$18,866	
	Culinary Arts	343	237	\$9.48	\$17,160	
	Teaching/Library Assistant	155	110	\$9.46	\$12,301	
	Early Childhood Ed	396	242	\$9.14	\$14,046	
	Other Services	80	56	\$9.01	\$14,496	
	Cosmetology	289	188	\$8.60	\$13,655	
	Nursing Assistant	246	195	\$8.56	\$14,021	
		Total Low Wage Programs	4,694	3,209	\$9.86	\$17,356
		% of Total	31%	29%		
	Apprentice	625	574	\$26.01	\$48,518	
	Job Preparatory Completers	15,260	11,013	\$11.91	\$21,996	
	All Completers	15,885	11,587	\$12.17	\$22,623	

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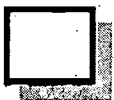


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