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**Testimony to the Senate Education Committee
Re: Senate Interim Charge to make recommendations to improve career
and technical education programs to address the economic and
workforce needs of this state**

**By Holly Eaton
Director of Professional Development and Advocacy
May 19, 2008**

Thank you for this opportunity to give input on a topic that we consider crucial to high school completion and success, Career and Technology education. We want to start by saying that we support Career and Technology education as a way to stem the dropout rate – one of the most consistent messages that students who drop out of school send is that they are bored and not engaged in their education. (Civic Enterprises: The Silent Epidemic, 2006, – students want and need more connection between what they're learning and real world.) Career and Technology education gives kids a relevant, hands-on learning experience while at the same time teaching them skills for postsecondary success in the job market.

We also support quality Career and Technology education as a legitimate path to graduation. Despite the oft-quoted statistic that ninety percent of the fastest-growing jobs in the new knowledge-driven economy will require some postsecondary education, if you look at the 30 fastest growing occupations in the 2008-2009 Occupational Outlook Handbook, eight of those don't require postsecondary education; in fact, they only require moderate on-the-job training. Also, some experts have pointed out that this statement reflects a false conclusion about growing demand by looking at occupations with the fastest growth rate, rather than looking at all occupations. If you look at the Top 30 United States Occupations with Largest Job Growth 2006-2016, only 9 of these require a postsecondary degree; the remaining 21 require only short or moderate on-the-job training. (Source: Bureau of Labor Statistics, *Occupational employment projections to 2016*, Monthly Labor Review, November 2007 Pages 97-98 www.jobseducationwis.org/290%20United%20States%20Occupations%20with%20Largest%20Job%20Growth%202006-2016.doc. Experts in the areas of high school completion and dropout prevention have pointed out that the availability of rigorous Career and Technology courses are extremely valuable in increasing the percentage of students, particularly at-risk students, in meeting postsecondary success standards. For example, the Southern Regional Education Board recommends that states create optional programs of study pathways for college and careers and embed the most essential college and career-readiness standards into the Career and Technology curriculum. http://www.sreb.org/programs/hstw/publications/briefs/04V09_ResearchBrief_CT_studies.pdf

The point here is that schools would be remiss if preparation for postsecondary success was too narrowly focused on postsecondary education without recognizing the equally compelling need to prepare students for success in the workforce, and Career and Technology education is certainly a way to do this. We can all share the hope that all students will eventually find their way to college. But the reality is that the true definition of postsecondary success is broader than that,

(over)

and high school offerings should reflect the full scope of preparedness for postsecondary success in college or the workforce. One of our members who works exclusively with at-risk kids, many of whom are homeless and lead chaotic lives, told me that these students have very little control over their lives; giving them high-quality choices in their education gives them a modicum of control over their situation, which in turn, invests them in the learning process. If they can choose a graduation pathway that is meaningful and relevant to them, it can make all the difference between graduating and dropping out.

Having a Career and Technology graduation pathway does not mean having a less rigorous graduation program. But it does mean that instead of requiring Pre-calculus for a Math credit, the program might allow an Advanced Accounting course to count for a Math credit. In fact, since it is our understanding that revised Career and Tech TEKS probably won't be ready to be implemented until 2010, a good intermediate step might be to allow more flexibility in the current system by allowing rigorous Career and Technology courses to be substituted for the required core courses in the current graduation programs.

Additionally, similar to an advanced academic graduation pathway which includes dual credit courses, a Career and Technology pathway could have courses available in which some sort of certification could be earned, allowing students to advance beyond high school while still in high school. Good examples are programs such as the Kaduceus program <http://www.kaduceusinc.com/districts.html>, a coordinated education program between pharmacies such as CVS and local schools in which students can become certified as pharmacy technicians while still in high school.

A central aspect to the success of a quality Career and Technology pathway is the availability of meaningful learning opportunities in actual workplaces - we believe that this is certainly an area in which the business community can actively assist in providing hands-on learning opportunities for students by providing meaningful apprenticeship opportunities in local businesses through an arrangement with the local school district in which valuable job skills are learned and put into practice. We believe that there should be some state-level coordinated effort to facilitate a system of apprenticeships on a local level. This kind of arrangement would be a win/win for students and for their potential employers, who could essentially work with schools to "grow their own" employees.

Additionally, it's no secret that employers are clamoring for employees who come out of the educational pipeline possessing not only critical thinking skills, but basic work skills; incorporating rigorous Career and Technology programs into the mainstream curriculum is an excellent opportunity to help students learn these skills. As an example, I have attached a news article about another state's recent foray into making better use of Career and Technology education to address high school completion and success.

Giving students rigorous choices in high school which prepares them for success in college or the workforce makes sense, and we appreciate your attention to the prospect of Career and Technology education as a means to do this.

Thank you.

Table 2. Fastest growing occupations, 2006–16

[Numbers in thousands]

2006 National Employment Matrix code and title		Employment		Change, 2006–16		Quartile rank by 2006 median annual wages ¹	Most significant source of postsecondary education or training ²
		2006	2016	Number	Percent		
15–1081	Network systems and data communications analysts.....	262	402	140	53.4	VH	Bachelor's degree
39–9021	Personal and home care aides.....	767	1,156	389	50.6	VL	Short-term on-the-job training
31–1011	Home health aides.....	787	1,171	384	48.7	VL	Short-term on-the-job training
15–1031	Computer software engineers, applications.....	507	733	226	44.6	VH	Bachelor's degree
29–2056	Veterinary technologists and technicians.....	71	100	29	41.0	L	Associate degree
13–2052	Personal financial advisors.....	176	248	72	41.0	VH	Bachelor's degree
39–5091	Makeup artists, theatrical and performance.....	2	3	1	39.8	H	Postsecondary vocational award
31–9092	Medical assistants.....	417	565	148	35.4	L	Moderate-term on-the-job training
29–1131	Veterinarians.....	62	84	22	35.0	VH	First professional degree
21–1011	Substance abuse and behavioral disorder counselors.....	83	112	29	34.3	H	Bachelor's degree
39–5094	Skin care specialists.....	38	51	13	34.3	L	Postsecondary vocational award
13–2051	Financial analysts.....	221	295	75	33.8	VH	Bachelor's degree
21–1093	Social and human service assistants.....	339	453	114	33.6	L	Moderate-term on-the-job training
33–9031	Gaming surveillance officers and gaming investigators.....	9	12	3	33.6	L	Moderate-term on-the-job training
31–2021	Physical therapist assistants.....	60	80	20	32.4	H	Associate degree
29–2052	Pharmacy technicians.....	285	376	91	32.0	L	Moderate-term on-the-job training
19–4092	Forensic science technicians.....	13	17	4	30.7	H	Bachelor's degree
29–2021	Dental hygienists.....	167	217	50	30.1	VH	Associate degree
21–1014	Mental health counselors.....	100	130	30	30.0	H	Master's degree
21–1023	Mental health and substance abuse social workers.....	122	159	37	29.9	H	Master's degree
21–1013	Marriage and family therapists.....	25	32	7	29.8	H	Master's degree
31–9091	Dental assistants.....	280	362	82	29.2	L	Moderate-term on-the-job training
15–1051	Computer systems analysts.....	504	650	146	29.0	VH	Bachelor's degree
15–1061	Database administrators.....	119	154	34	28.6	VH	Bachelor's degree
15–1032	Computer software engineers, systems software.....	350	449	99	28.2	VH	Bachelor's degree
39–3012	Gaming and sports book writers and runners.....	18	24	5	28.0	VL	Short-term on-the-job training
19–4091	Environmental science and protection technicians, including health.....	36	47	10	28.0	H	Associate degree

39-5092	Manicurists and pedicurists.....	78	100	22	27.6	VL	Postsecondary vocational award
29-1123	Physical therapists.....	173	220	47	27.1	VH	Master's degree
29-1071	Physician assistants.....	66	83	18	27.0	VH	Master's degree

* The quartile rankings of Occupational Employment Statistics Survey annual wages data are presented in the following categories: VH = very high (\$46,360 or more), H = high (\$30,630 to \$46,300), L = low (\$21,260 to \$30,560), and VL = very low (up to \$21,220). The rankings were based on quartiles, with one-fourth of total employment defining each quartile. Wages are for wage and salary workers.

† An occupation is placed into 1 of 11 categories that best describes the postsecondary education or training needed by most workers to become fully qualified in that occupation. For more information about the categories, see *Occupational Projections and Training Data, 2006-07* edition, Bulletin 2602 (Bureau of Labor Statistics, February 2006), and *Occupational Projections and Training Data, 2008-09* edition, Bulletin 2702 (Bureau of Labor Statistics, forthcoming).

Source: Bureau of Labor Statistics, *Occupational employment projections to 2016*, Monthly Labor Review, November 2007 Pages 97-98

<http://stats.bls.gov/opub/mlr/2007/11/art5full.pdf>

Table 1 Rank Order Top 30 United States Occupations with Largest Job Growth 2006-2016

Rank	Occupation	Employment 2006	2016	Change Number	Percent Change	May-06 Median wage	Quartile Rank*	Training Source
1	Registered Nurses	2,505,000	3,092,000	687,000	23.5	VH*		Associate Degree
2	Retail salespersons	4,477,000	5,034,000	557,000	12.4	VL*		Short-term OJT
3	Customer service reps	2,202,000	2,955,000	452,000	24.8	L*		Moderate-term OJT
4	Combined Food prep & serving wkrs. including fast food	2,503,000	2,955,000	452,000	18.1	VL*		Short-term OJT
5	Office clerks, general	3,200,000	3,604,000	404,000	12.6	L*		Short-term OJT
6	Personal & home care aides	767,000	1,156,000	389,000	50.6	VL*		Short-term OJT
7	Home health aids	787,000	1,171,000	394,000	48.7	VL*		Short-term OJT
8	Postsecondary teachers	1,672,000	2,054,000	382,000	22.9	VH*		Doctoral Degree
9	Janitors & cleaners except maids & housekeepers	2,387,000	2,732,000	345,000	14.5	VL*		Short-term OJT
10	Nursing aides, orderlies, & attendants	1,447,000	1,711,000	264,000	18.2	L*		Postsecondary voc
11	Bookkeeping/Accounting clerks	2,114,000	2,377,000	264,000	12.5	L*		Moderate-term OJT
12	Waiters & Waitresses	2,361,000	2,615,000	255,000	10.8	VL		Short-term OJT
13	Child care workers	1,388,000	1,636,000	248,000	17.8	VL*		Short-term OJT
14	Exec. Secretaries/Adm. Assistants	1,618,000	1,857,000	239,000	14.8	H*		Work Exp. Related
15	Computer software engineers, applications	507,000	733,000	226,000	44.6	VH*		Bachelor's Degree
16	Accountants & auditors	1,274,000	1,500,000	226,000	17.7	VH*		Bachelor's Degree
17	Landscaping/ grounds keeping workers.	1,220,000	1,441,000	221,000	18.1	L*		Short-term OJT
18	Elementary teachers/except special ed.	1,540,000	1,749,000	209,000	13.6	H*		Bachelor's Degree
19	Receptionists/ Information clerks	1,173,000	1,375,000	202,000	17.2	L*		Short-term OJT
20	Truck drivers, heavy & tractor trailer	1,860,000	2,053,000	193,000	10.4	H*		Moderate-term OJT
21	Maids & housekeeping cleaners	1,470,000	1,656,000	186,000	12.7	VL*		Short-term OJT
22	Security guards	1,040,000	1,216,000	175,000	16.9	L*		Short-term OJT
23	Carpenters	1,462,000	1,612,000	150,000	10.3	H*		Long-term OJT
24	Management analysts	678,000	827,000	149,000	21.9	VH*		Bachelor's/more/Exp
25	Medical assistants	417,000	565,000	148,000	34.4	L*		Moderate-term OJT

26	Computer system analysts	504,000	650,000	146,000	29	VH*	Bachelor's Degree
27	Maintenance & repair wkrs. General	1,391,000	1,531,000	140,000	10.1	H*	Moderate-term OJT
28	Network Systems & data com. analysts	262,000	402,000	140,000	10.1	H*	Bachelor's Degree
29	Food preparation workers	902,000	1,040,000	138,000	15.3	VL*	Short-term OJT
30	Teacher assistants	1,312,000	1,499,000	137,000	10.4	VL*	Short-term OJT
		46,440,000	54,798,000	8,118,000	17.5		

Source: Bureau of Labor Statistics, *Occupational employment projections to 2016*, Monthly Labor Review, November 2007 Pages 97-98
<http://stats.bls.gov/oppub/mlr/2007/11/art5full.pdf>

Thursday, April 3, 2008 - Page updated at 12:00 AM

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COURTNEY BLETHEN / THE SEATTLE TIMES

Inglewood High School senior Haley Howard, right, gives Marion Steele a manicure, while doing a work study at a Bothell health facility.

State antes up to train students for jobs in trades

By Lynn Thompson

Seattle Times Eastside bureau

Bothell High School senior Lanie Wait thought about a career in health care, but until she interned at a local nursing home this semester she wasn't sure. The course, part of the state's career- and technical-education program, focused her sights on nursing, a field with a critical worker shortage.

"It really helped me make the decision that this is the right thing for me," she said.

Thousands more students statewide will be encouraged to explore a range of trade and career opportunities in high-demand fields as the state turns its attention to training a new generation of workers.

Gov. Christine Gregoire last week signed legislation calling for the first overhaul in 20 years of the state's Career and Technical Education (CTE) program. The bill retools high-school training programs to ensure students can move easily to industry apprenticeships and programs at technical and community colleges.

It includes \$100 million to modernize and expand the state's network of skill centers, the regional campuses where high-school students explore jobs such as aerospace manufacturing and computer networking. About \$9 million will go toward a new health-careers facility that will serve seven Eastside school districts in partnership with Lake Washington Technical College.

The bill also recognizes that hands-on CTE courses can deliver the academic content needed to meet state standards. By beefing up the math, science and reading content of the courses, and adding training in academic subjects to CTE teachers' technical expertise, the bill will give students another way to prepare for the Washington Assessment of Student Learning.

"This is the K-12 response to the state's need for more workers with 21st-century skills," said John Aultman, assistant superintendent for career and college readiness at the state Office of Superintendent of Public Instruction.

Skilled workers

After more than a decade of emphasizing college readiness and higher academic standards, the state is responding to the cries of business and industry for skilled workers.

Many construction trades already can't fill openings for jobs such as electricians and welders. White-collar employers, from hotels and hospitals to state government, also worry that they won't be able to meet workforce needs.

"We're hearing from business and industry as never before that we have to develop a larger pipeline of qualified people," said Joyce Carroll, director of the Northeast Tech Prep Consortium, which works with nine Eastside school districts and four community and technical colleges to provide education and job-skills training to students.

Once known somewhat disparagingly as vocational education or industrial arts, programs such as auto mechanics and metal working are being retooled to lead to apprenticeships, industry certification and college degrees.

"This isn't shop anymore," said Rep. Skip Priest, R-Federal Way, a sponsor of the CTE legislation. "We need to send a message to students that if they stay in school, **there are multiple pathways to get a good career.**"

The Seattle area and northeast King County were both identified by a 2006 state study as being underserved by existing skill-center programs. The Seattle School District doesn't have a central training center but provides CTE classes at its high schools. The new legislation funds a \$75,000 feasibility study for the district to expand its high-school offerings.

On the Eastside, a consortium of seven school districts, including Bellevue, Lake Washington and Northshore, plans a partnership with Lake Washington Technical College to build the \$9 million allied health facility that will be in the college's new \$30 million health-sciences facility scheduled to open in 2011.

The arrangement could become a model for expanded career programs throughout the state by providing one location where students can move easily from high school to advanced training to industry.

"If we're interested in where the next generation of workers will come from, and we want to grow our own rather than continuing to import them, this is part of the answer," said Mike Potter, dean of Lake Washington Technical College.

In Snohomish County, the Sno-Isle Skills Center will get a \$26 million renovation, part of a \$72 million appropriation the Legislature made last year to begin modernizing the state's 10 regional skill centers.

Commitment lauded

The state's labor unions applaud the renewed commitment to workforce training.

"We need young people to rebuild our roads and bridges, to continue to expand our economic base," said David Johnson, executive secretary of the Washington State Building and Construction Trades Council. "I don't know who they thought was going to do the work that needs to be done."

Johnson said the CTE overhaul could also help address the state's high-school-dropout rate. Training programs that combine hands-on learning with real-world job opportunities may keep more students engaged, he said.

At Woodinville High School, students in a health-science-careers class spend a semester in a high-school classroom fitted out like a hospital room. They learn about anatomy, physiology and disease processes, medications and side effects, and ways to preserve patients' privacy and dignity.

They gain professional contacts and some health-care experience for their résumés.

Kathleen Dearborn, a registered nurse who has taught the health-sciences class for the past 19 years, said the new allied health wing at Lake Washington Technical College will open those opportunities to even more students in more fields.

Sen. Rosemary McAuliffe, D-Bothell, another sponsor of the CTE bill, said the state wants all students to have a clear route to a promising future.

"We're not closing the door on college for these students," McAuliffe said. "We're creating more opportunities for kids to move up in different ways."

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