

# **A Survey of U.S. and Washington State Postsecondary Attainment Data**

**With a Focus on Community College Attainment**

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**by Seattle Jobs Initiative**

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## **I. The Importance of Postsecondary Attainment**

### **Jobs Are Requiring Greater Skills**

In an increasingly global economy, a greater percentage of jobs—particularly those that pay a family supporting wage but even including entry-level jobs—require education and training beyond high school.

In the old economy, a U.S. worker with a high school diploma or less still had ample opportunities to earn a family supporting wage through once robust sectors such as manufacturing, which in 1950 employed fully one-third of U.S. workers. These sectors have been rapidly shrinking. By 2003, for example, the manufacturing sector employed fewer than 11% of U.S. workers.<sup>1</sup>

From 1984-2000, two-thirds of job growth was accounted for by jobs associated with college-level education.<sup>2</sup> This trend will continue and likely gain momentum going forward. According to the U.S. Bureau of Labor Statistics, between 2004-2014, 24 of the 30 fastest growing occupations will require workers with postsecondary education and training.<sup>3</sup> The BLS further estimates that 42% of new entry-level job growth will require a two-year associate degree or a technical training certificate (but not a four-year degree).<sup>4</sup>

Skill requirements for jobs in Washington State are similarly on the rise. It is estimated that about half of all job openings from 2004-2014 will be middle-skill jobs (requiring some education and training beyond high school but not a Bachelor's degree)<sup>5</sup>, while 77% of new job openings in the state that pay enough to support a family will, by 2014, require some education and training beyond high school.<sup>6</sup>

### **Our Current and Future Workforce Lacks the Skills to Fill Needed Jobs**

Our current national and local workforce lacks skills needed by employers. In one recent survey of U.S. employers, 73% cited "very" or "somewhat" difficult conditions

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<sup>1</sup> Kirsch, Braun, Yamamoto, Sum, "America's Perfect Storm: Three Forces Changing Our Nation's Future." Educational Testing Service (January 2007)

<sup>2</sup> Ibid

<sup>3</sup> "Washington's Forgotten Middle-Skill Jobs: Meeting the Demands of a 21<sup>st</sup>-Century Economy." The Workforce Alliance, Washington, D.C. (June 2008)

<sup>4</sup> Gordon, Edward E., "The 2010 Meltdown: Solving the Impending Jobs Crisis." Praeger Publishers (2005).

<sup>5</sup> Washington's Forgotten Middle-Skill Jobs: Meeting the Demands of a 21<sup>st</sup>-Century Economy."

<sup>6</sup> "Improving the Odds: Preparing Washington Students for Family-Wage Jobs," Partnership for Learning; available at <http://www.collegeworkready.org>. Uses Washington State University Social & Economic Sciences data. A family with one worker and two children must make \$22.29/hour (\$46,372 annually) and a family with two workers and two children must average \$12.73/hour per worker (\$52,966 annually). In King/Snohomish Counties, these numbers increase to \$25.24/hour (\$52,508) and \$13.73/hour (\$57,097), respectively.

hiring qualified workers.<sup>7</sup> A 2002 study by the Hudson Institute found that 60% of all the jobs the U.S. is creating will require skills that only 20% of the current U.S. workforce actually possesses.<sup>8</sup> In King County, more than half of employers recently reported difficulty finding qualified applicants for their job openings.<sup>9</sup>

These statistics are unsurprising given the educational attainment level of the current workforce. In a recent research paper, the National Commission on Adult Literacy found that of the 222 million adults aged 16 and older living in U.S. households/prisons, about 93 million (42%) lack the literacy needed to enroll in postsecondary education or job training that current and future jobs require.<sup>10</sup> According to this same research, about 88 million adults in the U.S. have at least one major educational barrier—no high school diploma, no college, or ESL language needs—to getting the skills they need for available jobs. Locally, in the Puget Sound region, nearly half of the working age population—almost one million people—have no postsecondary credential.

Without increased investment in helping to skill up current and future workers, the overall decline in the skill level of the U.S. workforce is apt to continue as a result of demographic and educational attainment trends. Baby boomers—a relatively high skilled segment of the workforce—are reaching retirement age (8,000 turn 60 each day), and are being replaced by a smaller pool of less-skilled workers.<sup>11</sup>

Among 30 OECD free-market nations, the U.S. is the only nation where young adults are less educated than the previous generation.<sup>12</sup> Each year, more than 1 in 3 young adults drop out of high school.<sup>13</sup> And many who do graduate lack basic skills or readiness for job training: 40% of college students must take at least one remedial course; 63% of college students enrolling in 2-year programs need remediation.<sup>14</sup>

Further, trends in population growth mean that the U.S. workforce will increasingly be constituted of immigrants and populations with historically disproportionately low educational attainment.<sup>15</sup> One study predicts that none of the growth in the U.S. labor force between 2000 and 2020 will come from native born workers of prime working age (25-54).<sup>16</sup>

As a result of these trends, it is predicted that by 2030, without greater investment in education and training, the average levels of literacy and innumeracy in the working-age population will have decreased by 5% and the current inequalities in these levels among population groups increased by 7%.<sup>17</sup>

Similar trends exist in Washington State. For example, 12% of the state's population was aged 55+ in 2002, a number expected to climb to 22% in 2030, a

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<sup>7</sup> Gordon, "2010 Meltdown: Solving the Impending Jobs Crisis."

<sup>8</sup> Ibid.

<sup>9</sup> Washington State Workforce Training & Education Coordinating Board, "Workforce Training Results 2008," available at <http://www.wtb.wa.gov/wtr2008>.

<sup>10</sup> "Reach Higher, America: Overcoming Crisis in the U.S. Workforce," a Report of the National Commission on Adult Literacy. National Council for the Advancement of Adult Literacy (June 2008).

<sup>11</sup> Ibid.

<sup>12</sup> Ibid.

<sup>13</sup> Ibid.

<sup>14</sup> Ibid.

<sup>15</sup> Ibid.

<sup>16</sup> Kirsch, Braun, Yamamoto, Sum, "America's Perfect Storm: Three Forces Changing Our Nation's Future."

<sup>17</sup> Ibid.

clear indicator of the aging out of the workforce. Meanwhile, about 1 in 5 state residents ages 18-24 have no high school diploma or GED. Only one-third of current 9<sup>th</sup> graders in Washington will go on to college.<sup>18</sup> One study projects a 4% net decline in workers with educational attainment at middle skill level between 2004-2020.<sup>19</sup>

## II. A Summary of Findings on Postsecondary Attainment Rates

Labor market research clearly demonstrates a growing need for college-educated workers among employers and that a college credential is more than ever a prerequisite for most family supporting jobs. Yet, despite a rise in college attendance—especially rapid at public two-year community colleges<sup>20</sup>--students are completing postsecondary degrees at a startlingly low rate.

A major longitudinal study by the U.S. Department of Education found that only 38.4% of all first-time postsecondary students (2- or 4-year) receive a degree six years after enrollment. Non-traditional students, such as those who delayed entry after high school (32.8%), those who always attended part-time (13.2%), and those working full-time (27.2%) completed degrees at significantly lower levels. African Americans (28.4%) and Hispanics (34.3%) also had lower rates of attainment.<sup>21</sup> And little more than a quarter (27.8%) of all students in Associate degree programs at 2-year colleges completed their programs within three years (150% of program time).<sup>22</sup>

Attainment rates among the large number of students who require remediation are even lower. For example, students in 2-year public college programs who require remediation are twice as likely to still be enrolled in higher education six years after enrollment as those who don't require remediation. And only 24% of both African American and Hispanic students at these colleges who require remediation earn a credential or transfer within six years of enrollment.<sup>23</sup>

In Washington State, only 30.4% of students entering Associate's degree programs at 2-year colleges complete within 3 years (150% of program time).<sup>24</sup> Relatively few non-traditional students (here defined as aged 25+ with a high school diploma or 18-24 with no high school diploma) in 2-year public colleges reach the tipping point of 45 credits plus a credential. At five years after enrollment, only 35% of students beginning with a high school diploma and 29% of those beginning with a GED reached 45 credits or earned a certificate/degree (not necessarily both). For

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<sup>18</sup> National Center of Higher Education Management Systems, Information Center for Higher Education Policymaking and Analysis (2009); available at <http://www.higheredinfo.org>

<sup>19</sup> Washington's Forgotten Middle-Skill Jobs: Meeting the Demands of a 21<sup>st</sup>-Century Economy."

<sup>20</sup> 83.5% of white and 80.5% of blacks and Hispanic high-school graduates attend college in the eight years after high school. Rosenbaum, Redline and Stephan, "Community College, The Unfinished Revolution" (Summer 2007).

<sup>21</sup> U.S. Department of Education, National Center for Education Statistics, 1996/01 Beginning Postsecondary Students Longitudinal Study (BPS:96/01) (2002).

<sup>22</sup> National Center of Higher Education Management Systems, Information Center for Higher Education Policymaking and Analysis

<sup>23</sup> Bailey, Jenkins, Leinbach, "What We Know About Community College Low-Income and Minority Student Outcomes: Descriptive Statistics from National Surveys." Community College Research Center, Teachers College, Columbia University (January 2005).

<sup>24</sup> National Center of Higher Education Management Systems, Information Center for Higher Education Policymaking and Analysis

students beginning in ESL or ABE, these numbers plummet to 4% and 6%, respectively.<sup>25</sup>

A separate study of postsecondary attainment among first-time community college students in Washington State who enter with less than a B.A. and a college-level goal (they declare an interest in transfer, completing a degree, or are in a job preparatory program) shows equally low attainment. Six years after initial enrollment, between 51% (Asian/Pacific Islander) and 71% (Hispanic) students had left college with no award or had obtained only minimal credits.<sup>26</sup>

### **III. A Survey of Postsecondary Attainment Data at the National Level**

#### **An Overview - U.S. Department of Education Data**

The following data is excerpted from the U.S. Department of Education, National Center for Education Statistics 2002 report, *Descriptive Summary of 1995-96 Beginning Postsecondary Students: Six Years Later*<sup>27</sup> (see table, Attachment A). The study included the enrollment and attainment status of first-time postsecondary students—of various student characteristics—six years after initial enrollment. Relevant findings include the following:

- **38.4%** of **all students** received a degree (11.5% Certificate; 17.3% Associate's; 9.7% Bachelor's). 45.2% dropped out and 16.4% were still enrolled/no degree.

[A different national study, cited in *Community College The Unfinished Revolution* (Rosenbaum, Redline, Stephan) found that of newly entering community college students planning to get a degree, only **34%** complete in the eight years after high school.]

- **Older students** fared worse in terms of level of attainment.
  - Students age 30+ at enrollment: **30.6%** received a degree (16.5% AA or BA)
  - Students age 18 at enrollment: **43.8%** received a degree (36.4% AA or BA)
  - Delayed entry: **32.8%** received a degree (17.2% AA or BA)
  - Direct entry: **43.9%** received a degree (36.8% AA or BA)
- In terms of overall degree attainment, Black (28.4%) and Hispanic (34.3%) students fared worse than White (40.5%) Asian-PI (41.9%) students.
- **Intensity of enrollment** plays a major factor in degree attainment. Those who always attended full-time or attended a combination of part-time/full-time fared much better than those always attending part-time in terms of both degrees

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<sup>25</sup> Prince and Jenkins, "Building Pathways to Success for Low-Skill Adult Students: Lessons for Community College Policy and Practice from a Statewide Longitudinal Tracking Study." Community College Research Center, Teachers College, Columbia University (April 2005).

<sup>26</sup> Washington State Board for Community & Technical Colleges, Research Report No. 09-2, "Access and Success for Persons of Color in Washington Community and Technical Colleges: Progress Report (revised June 2009).

<sup>27</sup> U.S. Department of Education, National Center for Education Statistics, 1996/01 Beginning Postsecondary Students Longitudinal Study (BPS:96/01) (2002).

received and attainment level. For example, only 13.2% of those always attending part-time attained a degree vs. 49.5% of those always full-time.

- Students **working full-time** fared worse, receiving degrees at a **27.2%** rate compared to **43%** for those who didn't work. Those who worked only part-time, however, received degrees at the highest rate (44.7%) and in fact reached the highest levels of attainment.
- Degree attainment in **private 2-year colleges** (**58.9%** nonprofit/**55.6%** for profit) was significantly higher than in **public 2-year colleges** (**36.7%**), though fewer students beginning in private colleges ended up with Bachelor's degrees.
- **Socioeconomic status** did not seem to have a huge effect on degree attainment (those "minimally disadvantaged" fared the worst), although those who were not disadvantaged achieved Bachelor's degrees at a higher rate.

### **A Closer Look at U.S. Department of Education Data for Low-Income and Low-Skill Students – Community College Research Center Analysis**

The Community College Research Center (CCRC) analyzed the above-referenced U.S. Department of Education NCES survey data and with specific regard to attainment rates among low-income, minority and low basic skills students. Their study<sup>28</sup> provides us a more intricate portrait of attainment among these students, including specifically those attending community colleges (public 2-year institutions). Again, the NCES survey looks at the 6-year attainment rates for first-time postsecondary enrollees in 1995-96. Key facts from CCRC's analysis include the following:

- **Effects of Remediation**
  - Overall, first-time community college students who took at least one remedial course in their first year were less likely to earn a certificate or bachelor's degree than those who took no remediation (though they were just as likely to earn an associate's degree or transfer). This is reflective of the fact that students in certificate programs are less likely to enroll in remediation than students in associate degree programs.
  - Students taking remedial courses were **two times as likely to still be enrolled** in higher education six years following initial enrollment, indicating it may take longer for remedial students to graduate.
  - Overall, white community college students taking remedial courses were over **two times as likely to earn a credential or transfer** (51%) than were black or Hispanic students (24% each). This is primarily an effect of lower achievement in associate degree programs among these minority groups (as certificate programs have fewer remedial requirements).

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<sup>28</sup> Bailey, Jenkins, Leinbach, "What We Know About Community College Low-Income and Minority Student Outcomes: Descriptive Statistics from National Surveys."

- **Attainment Rates by Type of Program Enrolled In**
  - Only **28%** of students starting at community college who were initially enrolled in certificate programs actually earned a certificate within six years [and very few earned an associate degree (**7%**), transferred (**6%**) or earned a bachelor's (**1%**)]
  - Only **17%** of students starting at community college who were initially enrolled in associate degree programs actually earned an associate degree within six years. However, **28%** of these students transferred and **12%** earned bachelors.
  - The general pattern (true across all two- and four-year schools) is that the higher the degree program in which students initially enroll, the higher the success rate in attaining any degree or transferring.
- **Degree Completion or Transfer by Income**  
The following table—adapted from a chart in the CCRC study containing the same information—goes a bit further with the NCES survey (in part because it includes transfer data) looking at attainment by income quartile (SES).

**Six-Year Highest Outcome for Beginning Community College Students in 1995-96 by Household Income Quartile**

Household Income Quartile	Total Attain.	Certificate	Associate's	Transfer (no degree)	Bachelor's
All Students	49%	10%	16%	13%	10%
Lowest	47%	15%	19%	8%	5%
Second	45%	12%	13%	12%	8%
Third	52%	9%	18%	13%	12%
Highest	59%	4%	14%	23%	18%

**NCHEMS Research on National Postsecondary Attainment**

The National Center of Higher Education Management Systems has also collected the following data relevant to postsecondary progression/attainment at the national level that helps round out the picture<sup>29</sup>:

- 3-Year Graduation Rates for Associate Degree students at 2-Year Colleges (2007 look at students who began in 2004): **27.8%**
- Continuous Progression from HS to PSE Attainment: Percentage of 9<sup>th</sup> graders who graduate high school on time, go directly to college, return for their second year of college, and graduate (either 2 or 4-year institution) within 150% of program time (e.g. 3 years for AA, 6 years for BA): **19.7%**.

<sup>29</sup> National Center of Higher Education Management Systems, Information Center for Higher Education Policymaking and Analysis

- Percentage of 9<sup>th</sup> graders who enter college: **42.3%**
- Percentage of those entering college who enter 2-year college: **36.2%** (**15.3%** of all 9<sup>th</sup> graders enter 2-year college; **27%** of all 9<sup>th</sup> graders enter 4-year).
- Percentage of students enrolling in **public** 2-year colleges who return for their second year: **51%** (all students); **59%** (FT students); **40%** (PT students)
- Percentage of students enrolling in **private** 2-year colleges who return for their second year: **63.4%** (all students).

#### **IV. A Survey of Postsecondary Attainment Data for Washington State Community Colleges**

##### **The Big Picture**

The State Board for Community & Technical Colleges (SBCTC) provides no comparable data to the U.S. Department of Education National Center for Education Statistics study demonstrating at what rate students who enroll in a 2-year postsecondary institution attain a degree (and/or reach “the tipping point”). This data may be available from individual colleges according to SBCTC. Still, by compiling/combining SBCTC data from the **2007-2008 academic year**<sup>30</sup> one can get a picture of the number and percentage of students who completed all workforce programs in which they enrolled. These programs range from just six up to 45+ credits. Also included in the table below is the employment rate of program completers and non-completers.

	Total Students	Total Students Completing Programs	Total Students Leaving w/o Completing	% Completing	Completers: Est. Employ Rate	Non-Completers: Est. Employ Rate
<b>Washington St. CTCs</b>	<b>24,276</b>	<b>20,685*</b>	<b>13,591**</b>	<b>60.5%</b>	<b>83%</b>	<b>74%</b>
<b>King County CTCs</b>	<b>10,040</b>	<b>5,988</b>	<b>4,052**</b>	<b>59.5%</b>	<b>85%</b>	<b>79%</b>

\*Includes 12,748 degree and certificate completers, 5,098 students who completed 45 or more workforce education credits and 2,839 who completed uniquely designed programs.

\*\*Includes students who enrolled in 6 to 45+ Workforce Education credits, but did not complete their program.

Source: SBCTC Data Warehouse, 2007-08 Data Linking for Outcomes Assessment file, based on linking with the unemployment insurance data of Washington, Oregon, Idaho, and Montana.

<sup>30</sup> Washington State Board for Community & Technical Colleges, “Academic Year Report 2007-08”. (January 2009).



**What The *Tipping Point Study*<sup>31</sup> Reveals About Attainment Rates in Washington’s Community Colleges**

The SBCTC’s *Tipping Point* research provides insightful data on attainment rates specifically among Washington first-time community college students, ages 25 plus who started with a high school diploma or less OR who were first-time students ages 18-24 and lacking a high school credential, in the 1996-97 and 1997-98 academic years. The research provides some demographic background on who comprises this group: 48% were people of color; two-thirds had children/other dependents; two-thirds were not working; and among those who were working, most were low-wage earners (62% of those starting with a high school diploma up to 87% of those starting in ESL fell into this category).

Educational attainment after five years among this group was very low. Below is a table adapted from a charts included in the *Tipping Point* research that shows attainment levels among this cohort sorted by starting education level.

**Highest Educational Attainment after Five Years of Washington State Community and Technical Colleges First-Time College Students Ages 25+ Who Started with a High School Education or Less\***

5-Year Highest Attainment	Starting Education Level			
	ESL	Less Than HS	GED	HS Diploma
Number of Students	12,396	13,925	2,199	6,348
No Credits**	87%	61%	13%	11%
GED	0%	8%	---	---
Plan***	1%	1%	3%	3%
<10 College Credits	7%	16%	28%	19%
10 – 44 College Credits	2%	7%	26%	32%
45+ College Credits	1%	2%	12%	13%
<1 Year Certificate	1%	1%	3%	4%
1 Year Certificate +	1%	2%	5%	6%
Associate’s Degree	1%	1%	9%	12%

\*Also includes first-time students ages 18-24 who lacked a high school credential.

\*\*"No Credits" means that the students did not advance beyond non-credit courses such as ABE, ESL, GED, development education, or other non-credit programs.

\*\*\*"Plan" refers to students who completed a typically short-term course of training or education prescribed by another state agency such as DSHS or a One-Stop Center.

**Community College Attainment Among WorkFirst Participants**

The SBCTC also tracks for the state’s Department of Social and Health Services postsecondary attainment rates at Washington’s community colleges among WorkFirst program participants<sup>32</sup>. Participants were tracked in the following programs:

<sup>31</sup> Prince and Jenkins, "Building Pathways to Success for Low-Skill Adult Students: Lessons for Community College Policy and Practice from a Statewide Longitudinal Tracking Study."

<sup>32</sup> Washington State Board for Community & Technical Colleges, "WorkFirst: Fifth Year Accountability Report for WorkFirst Training Programs Conducted in 2002-2003" (June 2005).

- Customized Job Skills Training (CJST)—full-time, short-term (10-14 weeks) job skills training
- Full-time Vocational Education—industry certification focused professional-technical programs, including High Wage High Demand (HWHD) and I-BEST
- Work Study—subsidized work in coordination with study
- PT Job Skills Training—students enrolled in part-time vocational education and/or ABE/ELS/GED who are working part time; receive tuition aid.
- Literacy/Life Skills—high school completion, ABE/ESL/GED; Dependable Strengths curriculum

The following table shows the college enrollment and attainment in **FY 2007-08** for WorkFirst program participants in these programs. Where applicable the chart compares results for TANF recipients to other qualifying low-income enrollees.

### WorkFirst Education & Training Enrollments, College Progress, FY 2007-08

	CJST		HWHD	WORKFIRST WORK STUDY	TUITION AID for PT Working Students		LITERACY AND OTHER SKILLS	
	TANF	LOW INCOME	TANF	TANF	TANF	LOW INCOME	TANF	LOW INCOME
Enrolled	2,077	492	1,299	357	807	2,017	5,278	1,773
Left Training	1,770	408	992	249	663	1,585	4,662	1,607
Increased Achievement	729	173	584	178	340	708	1,302	605
% Achieved	41%	42%	59%	71%	51%	45%	28%	38%
Left at Tipping Point	88	33	170	21	57	164	19	15
% Tipping Point	5%	8%	17%	8%	9%	10%	0%	1%

\* CJST Training is too short to make substantial progress towards the Tipping Point.

\*\*Literacy & Other Skills – level gain indicators are the measured of progress (see Achievement Points).

\*\*\* Work Study is combined with any of these educational programs. It gives the opportunity to get work experience in coordination with class schedules, and wherever possible, in the area of study.

In addition, SBCTC tracked the attainment rates of WorkFirst participants enrolled in the I-BEST program in FY 2007-2008, with the following results:

- **305** TANF enrolled in I-BEST during the fiscal year
- 239 (**78%**) left the program by the end of FY 2008
- Of the 239, **76%** made significant progress toward the Tipping Point.
- Two-thirds of the I-BEST trainings are 2 or more quarters long.

**Opportunity Grants Program Data—Attainment Among Low-Income Students at Washington’s Community Colleges by Sector**

Adding another piece to the puzzle is SBCTC’s October 2008 *Opportunity Grants Progress Report*<sup>33</sup> containing data on the attainment rates of low socioeconomic status (SES) students in the most popular high demand community college programs. Low SES was defined by SBCTC as in the 4<sup>th</sup> and 5<sup>th</sup> quintiles (lowest 40% in terms of income), primarily comprised of low-skill/low-income workers with less than an associate degree education. Importantly, these attainment rates combine retention from fall to spring with tipping point/beyond attainment. Thus, while tipping point attainment rates exclusively would be lower, the table gives a good comparative picture of how low-income students fare by program. Retention/completion rates among comparison groups of students receiving either Pell, Opportunity Grants, or both, were significantly higher than those show in the table.

**Fall to Spring Retention and/or Completion at Tipping Point and Beyond In Selected Most Popular High Demand Programs**

<b>High Demand Program</b>	<b>Low-SES Retention/Completion Rate</b>
Accounting Tech & Bookkeeping	57%
Auto Mechanics	71%
Business Administration & Mgmt	42%
Criminal Justice/Law Enforcement	44%
Early Childhood Education & Teaching	49%
Medical/Clinic Assistant	53%
Nursing Assistant/Aid	15%
Office Management & Supervision	34%
Office Occupations & Clerical	41%
Practical Nursing	56%
Registered Nursing	59%
Truck & Bus Driver	11%
Welding Technician	50%

**Washington State Community College Attainment Data Employing the *Achieving the Dream*<sup>34</sup> Framework**

The SBCTC used Lumina Foundation’s *Achieving the Dream* framework for success tracking long-term community college attainment by student race/ethnicity<sup>35</sup>. Specifically, this framework looks at the six-year outcomes for new students with less than a B.A. who enter with a college-level goal (they declare an interest in

<sup>33</sup> Washington State Board for Community & Technical Colleges, Research Report No. 08-4: “Opportunity Grants: A Progress Report on the Post Secondary Opportunity Program.” (October 2008)

<sup>34</sup> *Achieving the Dream* is a national initiative of the Lumina Foundation to help more community college students succeed, especially students of color, working adults and students from low-income families. The initiative, launched in 2004, involves a partnership of more than 20 organizations and includes 83 colleges in 15 states.

<sup>35</sup> See Washington State Board for Community & Technical Colleges, Research Report No. 09-2, “Access and Success for Persons of Color in Washington Community and Technical Colleges: Progress Report

transfer, are in a job preparatory program, or specify that completing a degree is a goal when starting college). The following tables are adapted from SBCTC's study:

### Six-Year College Level Outcomes for Students By Race/Ethnicity

	<b>Percent of New Students that Complete (Degree or Certificate), Transfer, or Is Still Enrolled and Making Strong Progress (with 45 or more credits) by End of Sixth Year</b>		
	Started by Fall 1999, Outcomes by Spring 2005	Started by Fall 2000, Outcomes by Spring 2008	Started by Fall 2001, Outcomes by Spring 2007
African American	29%	31%	36%
Asian/Pacific Isl.	45%	47%	50%
Hispanic	27%	27%	30%
Native American	27%	33%	35%
Other Race	43%	40%	44%
White	43%	43%	48%

Looking specifically at the Spring 2007 status of students (referenced in above table) who began college in Fall 2001, SBCTC further breaks down the data by level of attainment. The table below adapts data contained in a chart developed by SBCTC.

### Specific Longer-Term Outcomes for Students Starting Fall '01 by Spring '07

	<b>Left with No Award</b>	<b>Continuing w/ Minimal Credits</b>	<b>Certificate</b>	<b>Degree</b>	<b>Transfer with No Award</b>
African American	65%	2%	9%	16%	9%
Asian/Pacific Isl.	50%	1%	6%	30%	13%
Hispanic	70%	1%	3%	19%	7%
Native American	65%	1%	5%	19%	10%
White	52%	1%	5%	30%	12%

Finally, this same study by SBCTC looks at those students who left with no award (presumably this includes students who transferred with no award as well, but this is not clarified in the study). The table below adapts data contained in a chart produced by SBCTC, which illustrates three important findings: 1) African American, Hispanic and Native American students were more likely than others to stop after just one or two quarters; 2) About 50% or more of students in all groups attended for no more than 3 quarters; 3) More than 40% of students overall attended 4 or more quarters but still earned no award.

### Students Leaving Without Award—Quarters Enrolled

	<b>1 Quarter</b>	<b>2 Quarters</b>	<b>3 Quarters</b>	<b>4-9 Qtrs.</b>	<b>10+ Qtrs.</b>
African American	26%	16%	16%	33%	9%
Asian/Pacific Isl.	20%	14%	15%	37%	15%
Hispanic	30%	16%	14%	32%	8%
Native American	28%	15%	14%	36%	8%
White	21%	16%	16%	37%	10%

## **NCHEMS Research on Washington State Postsecondary Attainment**

The National Center of Higher Education Management Systems collected the following data on postsecondary attainment in Washington State, including both two-year and four-year colleges<sup>36</sup>:

- 3-Year Graduation Rates for Associate Degree students at 2-Year Colleges (2007 look at students who began in 2004): **30.4%**
- Continuous Progression from HS to PSE Attainment: Percentage of 9<sup>th</sup> graders who graduate high school on time, go directly to college, return for their second year of college, and graduate (either 2 or 4-year institution) within 150% of program time (e.g. 3 years for AA, 6 years for BA): **17.3%**
- Percentage of 9<sup>th</sup> graders who enter college: **33.0%**
- Percentage of those entering college who enter 2-year college: **37.1%** (**12.2%** of all 9<sup>th</sup> graders attended 2-year college; **20.8%** of all 9<sup>th</sup> graders enter 4-year)
- Percentage of students enrolling in **public** 2-year colleges who return for their second year: **53.8%** (all students); **57.4%** (FT students); **41.1%** (PT students)
- Percentage of students enrolling in **private** 2-year colleges who return for their second year: **63.7%** (all students); **68.4%** (FT students); **40%** (PT students)

## **Washington State Community College Attainment Data Using Student Achievement Initiative Framework (2007-08 Academic Year)**

### ▪ **Students Enrolled in Professional-Technical Programs**

Washington's new Student Achievement Initiative measures academic progress toward the tipping point using a milestone-based point system formulated by SBCTC. In a 2008 study<sup>37</sup>, the SBCTC looked at the progress of a cohort of students using this system—specifically, 61,200 students enrolled in professional technical programs or taking pre-requisites for these programs in 2007-08. All students in the study had less than an associate degree and a goal to complete credentials (certificates and degrees) or apprenticeships.

SBCTC found that of these students, **55%** had no prior postsecondary achievement (they were new or first-time students); **34%** had already reached the 15 credit threshold and had up to 30+ credits but had not completed college math; and **11%** had similar credit attainment and had completed college math.

The following table summarizes SBCTC's findings in this report on gains made by each of these distinct groups during the academic year:

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<sup>36</sup> National Center of Higher Education Management Systems, Information Center for Higher Education Policymaking and Analysis

<sup>37</sup> Washington State Board for Community & Technical Colleges, Research Report No. 08-6, "Student Achievement of Washington's Community and Technical College Students Preparing for Work." (December 2008).

	<b>No Gains</b>	<b>Basic Skills or Pre-College Gains</b>	<b>15 college-level credits</b>	<b>30 college-level credits</b>	<b>Tipping point reached</b>
<b>Students with no prior PSE achievement</b>	50%	9%	19%	13%	2%
	<b>No Gains</b>	<b>Basic Skills or Pre-College Gains</b>	<b>Additional College Gains but No Math</b>	<b>Math requirement completed</b>	<b>Tipping point reached</b>
<b>Students w/PSE achievement but no math</b>	50%	6%	16%	10%	18%
	<b>No Gains</b>	<b>Basic Skills or Pre-College Gains</b>	<b>Additional College Gains less than Tipping Point</b>		<b>Tipping Point reached</b>
<b>Students w/ PSE achievement w/ math complete</b>	55%	4%	10%		31%

#### Key Facts from Table:

- Of first-time students (no prior PSE achievement) in these professional technical programs, only about 1/3 reached the 15-credit threshold that SBCTC considers to be the starting point on the pathway to the tipping point, while 2/3 did not. Some of this is accounted for by the fact that many students enrolled in short-term programs (less than 15 credits).
- Even among students who had already passed critical thresholds (e.g. students starting the year with 15-30+ credits and their college math requirement completed), many did not make any further progress (**55%**).

#### ▪ Students Beginning in Basic Skills Courses

SBCTC also looked at progress toward the tipping point along students who start community college in basic skills courses (ABE/GED, ESL, I-BEST)<sup>38</sup>. SBCTC states in this study that after five years, about **20%** of basic skills students reach the tipping point, with fewer ESL students reaching this level of attainment than ABE/GED students.

<sup>38</sup> Washington State Board for Community & Technical Colleges, Research Report No. 08-1, "Increasing Student Achievement for Basic Skills Students." (January 2008).

In the 2006-07 academic year studied, colleges in Washington served about 45,000 basic skills students—about **93%** of whom attended exclusively for basic skills. Thus, **only 7%** of basic skills students were also enrolled in other college-level coursework at some point during the year. Of this small pool of people, the majority were on the higher end of the basic skills spectrum (i.e., only **9%** of ESL students taking college-level courses were Level 3 or below; only **30%** of ABE/GED students taking college-level courses were Level 3 or below).

SBCTC did not provide specific data in this report on the percentage of students starting in different basic skills programs who reached the tipping point. What was provided was the percentage of basic skills students reaching key momentum milestones (15 and 30 college credits) toward the tipping point. This includes only those 7% of basic skills students who attempted college-level courses. This information is summarized in the table below.

**Percent of Students that Earn First 15 and First 30 Credits Momentum Points for I-BEST and Other Basic Skills Students That Attempted College Courses**

	<b>I-BEST ESL</b>	<b>ESL-Other</b>	<b>I-BEST ABE/GED</b>	<b>ABE/GED-Other</b>
<b>Students earning first 15 college credits</b>	53%	23%	61%	32%
<b>Students earning first 30 college credits</b>	11%	9%	26%	11%

In addition, in a separate report, SBCTC presented the percentages of ABE/GED/ESL students who transitioned to college-level coursework via I-BEST or other means in the same academic year. This data is from the 2007-08 academic year and is broken out by race/ethnicity.

**Percent of ABE Students (includes GED and ESL) Who Transition to College-Level Courses via I-BEST or Other Means in the Same Year**

	<b>Asian/Pacific-Islander</b>	<b>African American</b>	<b>Native American</b>	<b>Hispanic</b>	<b>White</b>	<b>Other</b>
<b>I-BEST</b>	2.7%	4.0%	4.2%	1.8%	5.0%	1.9%
<b>Other</b>	5.3%	7.2%	7.5%	3.1%	9.8%	3.5%
<b>Total</b>	8.0%	11.2%	11.7%	4.9%	14.8%	5.4%

#### IV. Washington State Data on Community College Attainment and Wages

##### Community College Workforce Program Median Wages

The Washington State Board for Community & Technical Colleges measures the median wages received by graduates of workforce education programs based on actual earnings nine months after college. It categorizes these programs into higher-wage (**\$15.60** per hour median), middle-wage (**\$12.90 - \$15.60** per hour median) and lower-wage (**below \$12.90** per hour) occupations. The following table is adapted from SBCTC's 2007-08 academic year report<sup>39</sup> and show data from the 2006-07 class (all colleges combined).

In this adapted table, a column is added showing the number of years required (sorted into less than one-year, 1 – 2 years, and 2-year degree) to complete each program of study. This information was culled from the Workforce Education Training & Coordinating Board's *Workforce Explorer* site and is an approximation in many cases: as the various colleges categorize programs differently, there is often a range of credits required for completion depending on each college's program. These numbers can, however, help to develop a picture of when a 1- or 2-year program of study leads to jobs with good wages.

<b>HIGHER WAGE PROGRAMS</b>				
<b>Field of Study</b>	<b>Years Req (1-2-yr deg)</b>	<b># Students Completing</b>	<b>Median Wages</b>	<b>Median Earnings</b>
Airframe/Power Plant	NA	61	\$18.77	\$27,979
Associate Degree Nurse	2-year degree	1,562	\$28.51	\$50,143
Computer Maintenance Tech	1 – 2 years	106	\$16.21	\$28,872
Construction Trades	Most <1 year	378	\$16.94	\$29,558
Dental Hygienist	2-year degree	149	\$41.61	\$59,057
Dental Lab Tech	Most 2-years	12	\$15.82	\$30,455
Drafting	1 – 2 years	222	\$18.76	\$37,165
Electrical Equipment Repair	<1 – 2 years	94	\$16.80	\$36,139
Electronics Technology	2 years	147	\$17.17	\$35,411
Engineering Technology	Most 2 years	155	\$19.46	\$39,564
Industrial Technology (except electronics tech)	1 – 2 years	422	\$18.88	\$47,688
Information Technology	NA	1,325	\$16.92	\$30,958

<sup>39</sup> Washington State Board for Community & Technical Colleges, "Academic Year Report 2007-08".



Legal/Real Estate Services	Varies	356	\$16.99	\$30,000
Machinist	Most 2-year	136	\$15.87	\$29,994
Med Lab Tech/Histologic	2-year	65	\$18.00	\$34,736
Medical X-ray	2-year	214	\$25.25	\$52,702
Health Tech (radiology tech, EKG tech, denture tech, hemodialysis tech, etc)	1 – 2 years	425	\$19.39	\$34,342
Paramedic EMT, Operating Tech	1 – 2 years	335	\$19.41	\$38,382
Physical Therapy	2 years	55	\$19.59	\$37,819
Practical Nurse	1 – 2 years	469	\$19.06	\$34,630
Precision, Production, Crafts	Most < 1 year	354	\$15.82	\$30,455
Protective Services	Most <1 year	656	\$15.91	\$34,258
Transportation Operators	Most <1 year	357	\$16.15	\$31,630
Welding	<1 – 2 years	333	\$15.67	\$29,176
<b>Total Higher Wage</b>		<b>8,388</b>	<b>\$20.59</b>	<b>\$38,527</b>

<b>MIDDLE WAGE PROGRAMS</b>				
<b>Field of Study</b>	<b>Years Req (1-2-yr deg)</b>	<b># Students Completing</b>	<b>Median Wages</b>	<b>Median Earnings</b>
Accounting	1 – 2 years	626	\$14.98	\$28,651
Agriculture, Forestry and Fisheries	<1 – 2 years	346	\$14.19	\$24,196
Auto Diesel	Most 2 years	826	\$13.83	\$26,537
Commercial & Graphics Art	NA	174	\$12.99	\$22,231
Dental Assisting	1 – 2 years	288	\$13.83	\$24,005
Managerial and Managerial Support	NA	516	\$14.91	\$28,570
Marketing and Sales	1 – 2 years	321	\$15.59	\$26,080
Medical Assisting	1 – 2 years	850	\$13.88	\$24,962
Health-Related Assistance Services (rehab counseling, opt. asst, home health aide,)	NA	408	\$14.37	\$22,258
Health Services (massage therapy, speech therapy, dietetic tech, etc)	< 1 year	186	\$14.84	\$28,438
Technical (recordings art tech, biology lab tech, air traffic control, etc)	<1 – 2 years	292	\$14.83	\$21,811
Pharmacy Assisting	1 – 2 years	190	\$14.07	\$27,182

<b>Total Middle Wage</b>		<b>5,023</b>	<b>\$14.15</b>	<b>\$25,436</b>
<b>LOWER WAGE PROGRAMS</b>				
<b>Field of Study</b>	<b>Years Req. (1-2-yr deg)</b>	<b># Students Completing</b>	<b>Median Wages</b>	<b>Median Earnings</b>
Administrative Support	<1 to 2 years	1,542	\$12.64	\$22,242
Cosmetology	<1 year	469	\$12.83	\$17,971
Culinary Arts	1 – 2 years	474	\$11.64	\$20,044
Early Childhood Ed	1 – 2 years	508	\$12.51	\$20,815
Nursing Assistant	most <1 year	585	\$10.88	\$17,068
Social Services	1 – 2 years	210	\$12.07	\$19,954
Teaching/Library Assistant	1 – 2 years	113	\$12.03	\$16,404
Veterinarian Assistant	1 – 2 years	88	\$12.46	\$23,729
<b>Total Lower Wage</b>		<b>4,435</b>	<b>\$12.27</b>	<b>\$20,328</b>
<b>TOTAL ALL PROGRAMS</b>		<b>20,685</b>	<b>\$15.39</b>	<b>\$27,630</b>

### **Community College Wage Data From The Tipping Point Research**

As stated above, SBCTC in its Tipping Point study<sup>40</sup> tracked the progress over five years of a cohort of first-time community and technical college students aged 25 and older who entered the system with at most a high school diploma (and first time-students ages 18-24 who did not have a high school diploma upon enrollment).

One of the key findings of the research was that those who took at least one-year of college credit courses **and** earned a certificate/other credential during the five-year period earned substantially more than students who earned fewer than 10 credits (basically, one quarter)—e.g. they reached the “tipping point.” Specific earnings gains by the program in which students started college are as follows:

- Students starting in ESL earned \$7,000 more
- Students starting in ABE/GED earned \$8,500 more
- Students entering with only a GED earned \$2,700 more
- Students entering with only a high school diploma earned \$1,700 more

Importantly, the data shows that for all groups, earning an Associates degree did not add much if any value in terms of earnings compared to a certificate of one year or more for this group. Moreover, reaching the tipping point holds far more value for those who are starting with very low skills, in part because they are entering with

<sup>40</sup> Prince and Jenkins, “Building Pathways to Success for Low-Skill Adult Students: Lessons for Community College Policy and Practice from a Statewide Longitudinal Tracking Study.”

very low wages and have the most to gain through increased skills. Only a tiny fraction of students starting in ESL or ABE/GED (less than high school diploma) reached the tipping point (*see previous section on attainment rates for more details*). Adapted below from the Tipping Point research is a table presenting information on annual earnings (2002 dollars) of the examined cohort based on starting education and attainment levels.

**Annual Earnings after Five Years of Washington State Community and Technical Colleges First-Time College Students Ages 25+ Who Started with a High School Education or Less\* in 1996-97 and 1997-98.**

5-Year Highest Attainment	Starting Education Level			
	ESL	Less Than HS	GED	HS Diploma
No Credits**	\$16,835	\$13,795	\$22,609	\$25,113
GED	\$13,651	\$15,268	NA	NA
Plan***	\$13,298	\$14,555	\$18,026	\$22,918
<10 College Credits	\$18,517	\$11,801	\$20,290	\$24,918
10 – 44 College Credits	\$19,925	\$14,003	\$18,224	\$26,305
45+ College Credits	\$16,940	\$15,899	\$17,740	\$23,886
<1 Year Certificate	\$17,912	\$14,922	\$18,591	\$25,755
1 Year Certificate +	\$25,673	\$25,312	\$22,483	\$26,203
Associate’s Degree	\$20,655	\$18,607	\$24,800	\$25,989

\*Also includes first-time students ages 18-24 who lacked a high school credential.

\*\*“No Credits” means that the students did not advance beyond non-credit courses such as ABE, EL, GED, developmental education or other non-credit programs.

\*\*\*“Plan” refers to student who completed a typically short-term course of training or education prescribed by another state agency such as DSHS or a One-Stop Center.

**Other Community College Attainment Wage Data for Washington State**

In the 2005 study *Economic Contribution of the Washington Community Technical College Districts*<sup>41</sup> the authors looked at the average earnings in Washington State by educational attainment. Although this is a bit older data than that presented above, it adds to the picture because it provides earnings for the mid-point of individuals’ working careers (as opposed to relatively soon after exiting college) and is weighted to reflect the specific gender and ethnicity profile of the study body of Washington’s community colleges.

Education Level	Average Earnings	Difference
One year short of HS/GED	\$17,294	----
HS/GED	\$27,147	\$9,853
One-Year Certificate	\$31,361	\$4,214
Two-Year Associate’s Deg.	\$36,710	\$5,349
One year post-Associate’s	\$41,904	\$5,194

<sup>41</sup> Robison and Christophersen, “The Economic Contribution of the Washington Community Technical College Districts.” Cbenefits, Inc. (December 2005).



**APPENDIX A: 2001 % Enrollment/completion status of first-time postsecondary students starting during the 1995-96 academic year by type of institution and other student characteristics**

Student and institution characteristics	Students starting in 2-year institutions					
	Highest degree attained				No degree, still enrolled	No degree, not enrolled
	Total, any degree \1\	Certificate	Associate's	Bachelor's\2\		
1	2	3	4	5	6	7
<b>Total</b>	<b>38.4</b>	<b>11.5</b>	<b>17.3</b>	<b>9.7</b>	<b>16.4</b>	<b>45.2</b>
<b>Male</b>	39.2	10.8	18.7	9.7	18.0	42.8
<b>Female</b>	37.7	12.0	15.9	9.8	14.9	47.4
<b>Age when first enrolled</b>						
18 years or younger	43.8	7.3	19.4	17.0	17.8	38.4
19 years	38.2	8.2	24.3	5.7	20.9	40.9
20 to 23 years	29.9	13.1	13.0	3.7	20.1	50.0
24 to 29 years	36.5	25.6	8.4	2.5	11.0	52.6
30 years or over	30.6	14.1	14.5	2.0	8.7	60.7
<b>Race/ethnicity</b>						
White	40.5	10.9	18.2	11.4	16.5	43.0
Black	28.4	16.7	8.5	3.2	13.3	58.3
Hispanic	34.3	11.1	17.8	5.5	18.1	47.6
Asian/Pacific Islander	41.9	11.6	23.0	7.4	21.2	36.9
<b>Dependency status when first enrolled</b>						
Dependent	42.1	8.2	20.1	13.8	18.3	39.6
Independent	32.9	17.6	12.3	3.0	13.8	53.4
<b>Timing of postsecondary enrollment</b>						
Did not delay\3\	43.9	7.0	20.9	15.9	18.4	37.7
Delayed entry	32.8	15.6	13.7	3.5	14.9	52.3
<b>Attendance status when first enrolled</b>						
Full-time	47.3	10.2	21.3	15.8	15.9	36.8
Part-time	29.5	13.9	12.2	3.4	15.6	54.9

<b>Intensity of enrollment through 2001</b>						
Always part-time	13.2	11.5	1.7	0.0	13.3	73.4
Mixed	42.3	12.6	20.8	8.9	21.7	36.0
Always full-time	49.5	9.3	22.0	18.1	9.1	41.4
<b>Degree goal at first institution</b>						
Certificate	45.2	38.4	6.2	0.7	6.8	48.0
Associate's degree	40.9	8.7	24.7	7.5	15.6	43.5
Bachelor's degree	40.3 \4\	6.0 \4\	11.7 \4\	22.6 \4\	21.9 \4\	37.8 \4\
<b>Worked while enrolled 1995-96</b>						
Did not work	43.0	13.9	21.5	7.6	10.4	46.6
Worked part time	44.7	8.5	20.9	15.2	18.4	36.9
Worked full time	27.2	14.3	9.6	3.4	17.0	55.8
<b>Control of first institution</b>						
Public	36.7	10.1	16.4	10.3	17.4	45.9
Private, not for profit	58.9	19.3	27.8	11.8	8.4	32.7
Private, for profit	55.6	27.8	25.8	2.0	4.3	40.0
<b>Socioeconomic status in 1995-96\5\</b>						
Not disadvantaged	41.7	8.9	18.1	14.6	20.4	38.0
Minimally disadvantaged	33.9	12.8	14.9	6.2	13.1	53.0
Moderately or highly disadvantaged	43.7	14.6	21.6	7.5	14.5	41.8

\1\Includes a small percentage of students who had attained a degree and were still enrolled. Includes recipients of degrees not shown separately.

\2\Includes a small percentage of students who had attained an advanced degree.

\3\Includes students with a standard high school diploma who enrolled in postsecondary education in the same year as their graduation.

\4\Includes students whose goal was to transfer to a 4-year institution.

\5\Determined by a socioeconomic diversity index that includes parental income as a percentage of the 1994 federal poverty level, parental education, and the proportion of the student body at the student's high school that was eligible for free or reduced-price lunch.

NOTE: Data reflect completion and enrollment status by spring 2001 of first-time postsecondary students starting in academic year 1995-96. Race categories exclude persons of Hispanic ethnicity. Detail may not sum to totals because of rounding. Standard errors appear in parentheses.

**SOURCE: U.S. Department of Education, National Center for Education Statistics, 1996/01 Beginning Postsecondary Students Longitudinal Study (BPS:96/01). (This table was prepared August 2003.)**