The Force of the Future

WorkForce Central is Pierce County’s resource for putting job seekers on a path to employment, providing a customized approach for businesses to address their talent needs, and developing strategic public and private partnerships for innovative solutions in workforce development.

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While the Great Recession is behind us, job growth has not been as robust as in past recoveries. Recent signs indicate Pierce County is moving in the right direction, but the climb is still steep and many challenges lie ahead. Helping businesses find qualified talent and putting jobseekers on a path to training and employment is essential to our region’s ongoing recovery. To a large extent, the strength of our workforce and its ability to meet the needs of industry will determine whether we sustain the growth in years ahead.

This report examines the state of the workforce within Pierce County, Washington. It aims to understand the balance between workforce supply and industry demand. In an ideal world, the skill, expertise and quantity of the workforce closely aligns with the needs of industry. This is not a perfect science as it requires balance between the size and quality of the workforce and the jobs available now and in the future. Understanding the potential misalignments is crucial to shaping our region’s workforce and economic development policies, strategies and investments to progress toward the ideal state of balancing workforce supply and industry demand.

The first section is a brief overview of the labor market in Pierce County. In the following sections, we dive deeper into what makes up our labor force supply, look at the youth pipeline and review what jobs are in demand.

In order to ensure Pierce County’s long-term economic vibrancy, we must continue to strengthen public and private partnerships that advance the key strategies most likely to result in the desired outcomes.
Pierce County has many assets. Advanced manufacturing, along with its living wage jobs in engineering, machining, warehousing and distribution, plays an important role in Pierce County, employing 6% of the county’s workforce. With the decision to build the Boeing 777X in Washington State, manufacturing will continue to be a growth industry.

**Healthcare employs 14% of the County’s workforce.**

Healthcare is a growing industry and offers living wages with advancement opportunities. Almost all of these careers require a good understanding of science and math with training and/or education beyond high school.

Almost one-third of the employees in Pierce County work in services, insurance, banking and information with an additional one-quarter working in the retail and hospitality industries. These sectors continue to grow, examples being recent additions of State Farm and Walmart. State Farm will ultimately add up to 1000 jobs in Pierce County, which is over one-third of all jobs created in 2013.

**Pierce County also has some challenges.**

Educational attainment in Pierce County is behind that of neighboring counties and also the state overall. In 2012, Pierce County residents trail their neighbors and the state by up to 14% in attaining education past high school. Another future challenge is the aging workforce. Since 2000, workers 55+ have increased from 11% to 19% of the total labor force, making employers assess their need to make necessary accommodations to retain this talent.

**Earning a living wage is also a challenge.**

Median earnings in Pierce County increased about 40% from 2000 to 2007 and have stayed virtually stagnant since then, actually decreasing by 1%. A living wage in Pierce County for one adult and two children is estimated at about $50,000, while the annual median earnings for all workers in 2012 was about $36,000.

As the Workforce Investment Board for Pierce County, WorkForce Central understands that workforce development and economic development are the touchstones of a prosperous community. Increased efforts to align workforce supply with industry demand, while also working to grow industries with living wage jobs, are essential to continue building a strong economy. WorkForce Central is uniquely positioned to lead this work through our broad partnerships with industry, education, labor, government and community as we work together to bridge the gap between disciplines, resources and jurisdictions.
Almost all healthcare careers require a good understanding of science and math.

A strong workforce is characterized by a combination of capability and flexibility. Getting the combination right is a significant driver for Pierce County’s growth and prosperity in the years ahead. Understanding workforce capability is primarily achieved through educational attainment, training and industry recognized credentials. Over the last 10 years, the residents of Pierce County have attained higher levels of education. Almost one-quarter (24%) of residents have a Bachelor degree or higher and over 10% have attained an Associate degree. Thurston and King Counties lag behind in Associate degrees, with residents attaining 9.5% and 8.4% respectively; however, residents in both counties exceed attainment in higher degrees; almost one-third (30%) of Thurston residents and almost one-half (46%) of King County residents have a Bachelor degree or higher.

Another indicator of educational attainment is on-time high school graduation rates, which have fallen significantly since 2000. Three-quarters (76%) of Pierce County students graduated on-time in 2012, while 89% graduated on-time in 2000. This decrease in on-time graduation is systemic throughout Washington and proves to be a major cause for concern. A small silver lining is that during the same period, on-time college graduation generally increased by a few percentage points.

While current and future workers must have all required skills and knowledge, they also must be trained and educated in the areas most needed by businesses generating new jobs. The need for STEM-related (science, technology, engineering, math) job candidates currently exceeds the supply. In Washington State, one out of 12 of the 85,424 jobs vacant in spring 2013 was a STEM occupation. Also within the state, it is estimated that 45,000 STEM jobs could go unfilled by 2017. Pierce County is graduating students with credentials for STEM occupations. In 2012, of those Pierce County students graduating with a certificate or Associate degree; 39% studied either healthcare, manufacturing or information technology. Of those graduating with a Bachelor degree, almost half (46%) held a degree in science or engineering. But in actual numbers, this is not enough. Steps must be taken to improve education capacity in computer science, engineering and health degree programs. Washington’s largest universities currently reject, due to lack of capacity, 2 out of 3 qualified applicants for some high-demand degree programs. Other avenues available to build capacity to meet industry and market demands include increased apprenticeships and industry-specific academies.
In 2000, in Pierce County 129,862 STUDENTS enrolled in school grades K-12.

In 2012, in Pierce County 133,337 STUDENTS enrolled in school grades K-12.

**ON-TIME** HIGH SCHOOL GRADUATION RATES

- 86% WA State
- 95% King County
- 83% Thurston County
- 89% Pierce County

**ON-TIME** COLLEGE GRADUATION RATES

- 7% WA State
- 13% King County
- 7% Thurston County
- 5% Pierce County

**2012 AREAS OF STUDY IN PIERCE COUNTY**

- 46% Science & Engineering
- 24% Humanities, Arts & Other
- 17% Business
- 13% Education

**2012 STEM STATISTICS IN PIERCE COUNTY & WA STATE**

- In 2012/13, in Pierce County 407 STUDENTS completed a certificate in a STEM program.
- 143 STUDENTS earned an Associates Degree in a STEM Field in Pierce County.
- 45,000 STEM Jobs could go unfilled by 2017 in WA State.
- 7,119 of the 85,424 jobs vacant in the Spring of 2013 were STEM occupations.

**2012 RESIDENTS EDUCATION LEVEL**

- **Pierce County**
  - Bachelor Degree or Higher: 24%
  - Associate Degree: 30%
  - Less than an Associate Degree: 67.8%

- **Thurston County**
  - Bachelor Degree or Higher: 46%
  - Associate Degree: 45.6%
  - Less than an Associate Degree: 8.4%

- **King County**
  - Bachelor Degree or Higher: 32%
  - Associate Degree: 9.6%
  - Less than an Associate Degree: 58.4%

- **WA State**
  - Bachelor Degree or Higher: 24%
  - Associate Degree: 30%
  - Less than an Associate Degree: 67.8%
Our future depends on the success of our youth.

In turn, our youth are highly dependent upon our educational systems to provide the academic and essential skills needed to thrive in today’s and tomorrow’s workforce.

Educational attainment has far-reaching social, cultural and economic benefits. Those with higher levels of education have lower unemployment, commit fewer crimes, require less public assistance and earn higher wages. Those with only a high school diploma are much more likely to be unemployed than those with post-secondary education such as journey-level, industry-recognized certifications and Associate degree or higher.

Achievements in post-secondary education also bring higher financial gains. In Pierce County, those who have some post-secondary education or an Associate degree make on average 22% more annually than those with only a high school diploma. These discrepancies grow deeper when viewed through the lens of race. Latinos, Native Americans and African Americans make less than their white counterparts even with the same education.

Race and income level also affects on-time high-school graduation rates. In Pierce County, the on-time graduation rate is an unacceptable 76%, but for Latino and African American students it is 69% and 72% respectively. The on-time graduation rate for Native Americans is 63%. For low income students, the on-time graduation rate is almost 10% lower than for all students.

Another significant challenge is the increase in poverty among Pierce County youth, most significantly for Latino youth, whose poverty rate has almost doubled from 2000 to 2012. Given the increase in poverty and more strict graduation requirements, there is an urgent need to focus efforts on improving academic performance for all Pierce County youth.

On the employment front, youth employment is at its lowest level since the mid 1940’s. Close to one-fifth of all Pierce County young adults from 16 to 24 years old are unemployed and the rate is significantly higher for Native American, African American and Latino youth. With thousands of jobs lost through the recession and more experienced workers vying for every open position, young people are often last in line for jobs. At this rate, we risk a generation with not enough or the right kind of education and too little early work experience to gain the essential skills that come from holding a job.

The future of employment comes down to this: Success will require post-secondary education, in one form or another. By 2018, two-thirds of the jobs nationally will require workers with at least some post-secondary education. About half of those will require a Bachelor degree or higher, while the remaining will require at least some post-secondary education or an Associate degree.

Improving educational outcomes and reconnecting youth to work requires a multifaceted approach. No one system or sector can do it alone, and a range of organizations and agencies must engage to make a difference for our youth; ensuring we have the workforce we need for future economic success.
In 2000, in Pierce County
25,495 YOUTH IN POVERTY

An INCREASE OF 9,000 YOUTH IN POVERTY in 12 years.

YOUTH IN POVERTY
IN PIERCE COUNTY
by Ethnicity

2000

2012

YOUTH UNEMPLOYMENT
IN PIERCE COUNTY

OVERALL
19%

YOUTH UNEMPLOYMENT
BY ETHNICITY

18% 23% 29% 11% 27%

ON-TIME HIGH SCHOOL
GRADUATION RATES
December 2012

What COLLEGES & UNIVERSITIES
In Pierce County Are Telling Us About Graduation Rates

COMMUNITY COLLEGES
RANGE FROM 20-24%
completion rates within 3 years of enrollment.

TECHNICAL COLLEGES
RANGE FROM 34-65%
completion rates within 3 years of enrollment.

UNIVERSITIES
RANGE FROM 43-77%
completion rates within 6 years of enrollment.

EXPECTED EARNING BY EDUCATION LEVEL ATTAINMENT (25+)

Less than High School
$21,780 ANNUAL

High School/GED
$31,566 ANNUAL

Some College/AA
$38,572 ANNUAL

Bachelor Degree
$50,800 ANNUAL

Graduate or Professional Program
$65,497 ANNUAL
While all industries in the region were affected by the recession, most are now showing signs of improvement. Recovery has not brought with it robust job growth with nonfarm employment growing only 1% annually over the last two years. One reason is the loss of jobs in the public sector. Since the beginning of 2011, this sector has lost 4,100 jobs.

About one-third of Pierce County’s 271,604 jobs are in the public sector.

Joint Base Lewis McChord alone employs over 63,000 and is the largest employer in Pierce County. However, JBLM is also exiting an estimated 24,000 to 36,000 soldiers over the next four years. It is still not known how this downsizing will affect the civilian employees on the base.

While the construction industry suffered a big blow during the recession – losing 25,500 jobs since 2007 – it is beginning to see signs of life. Of the top 10 occupations in Pierce County (as rated by WA State ESD), seven are associated with the construction industry.

The construction industry also has the highest likelihood of filling its vacancies in the shortest period of time. As of Spring 2013, the sectors of Information Technology and Logistics, Transportation and Warehouse have the least likelihood of filling vacancies.

National and Washington State business surveys indicate most living-wage occupations not only require a high school diploma or equivalent, but require education or training beyond high school. This may be a Bachelor or Associate degree, an industry recognized credential or an apprenticeship. Many of these occupations also require on-the-job training of some duration.

Pierce County business executives report the available workforce often lacks the training and critical job skills necessary for their businesses to effectively compete. This was quantified through a 2012 Washington State study where half to two-thirds of businesses reported not finding applicants with the required educational credentials to fill their openings.

The combination of education and experience required by local employers increasingly does not reflect the qualifications of the area’s job seekers. It is imperative Pierce County’s workforce development efforts address this mismatch between the skills of the available workforce and the current and projected jobs.

Career success in the new economy will require some form of post-secondary education.

In early 2014, over one-half of the top 25 occupational job openings in Pierce county required some form of post-secondary education, while 44% required an Associate degree or higher. This is the new threshold requirement for access to middle-class status and earnings.
EMPLOYERS THAT FOUND MISSING SKILLS IN POTENTIAL EMPLOYEES IN 2012

Work Habits 63%
Problem Solving 62%
Communication 53%
Customer Service 45%
Computer Literacy 42%

EMPLOYERS THAT FOUND EDUCATION GAPS IN POTENTIAL EMPLOYEES IN 2012

36% without a High School Diploma/GED
59% without a Vocational Certificate
50% without an Associate Degree
52% without a Bachelor Degree

RELATIVE LIKELIHOOD OF FILLING JOB OPENINGS
By Industry Sector 2013

53% of Jobs Openings in Pierce County require some post-secondary education
Yet, only 34% of people obtain an Associate or Bachelor Degree.

BUSINESSES BY SIZE IN PIERCE COUNTY
2013 1st Quarter

Note: Education attainment reflects actual job posting requirements or the reality of the education level of successful candidates for these openings.
Surveys indicate most living wage occupations require education or training beyond high school.
2 Increase Access to Post-secondary Training that Link to Living Wage Occupations

**STRATEGY**
Deploy and support career exploration and career path development for all Pierce County residents.

**CareerLink Pierce County**
Link residents to workplace-based learning opportunities. Connect residents directly to local employers through regional clearinghouses for internships, job shadows, summer and year-round jobs, employer presentations and other work-based learning opportunities through an online platform that matches residents to the business community.

**Year Up Puget Sound**
One-year intensive training program that provides low-income young adults, ages 18-24, with a combination of hands-on skill development, college credits and corporate internships. Closes the opportunity divide, empowering these young adults to reach their potential through professional careers and post-secondary education.

**Advocacy efforts**
Additional funding sources include State, Federal, private and philanthropic.

3 Increase the Number of Residents Employed in Living Wage Occupations

**STRATEGY**
Adequate investment in education and training programs directly linked to available living wage jobs.

**Technological Solutions**
Technological and online solutions need to be deployed to offer a more seamless system to prepare and match residents to available jobs. Preparation such as resume development, interview practice and job search strategies will reach more job seekers using online tools. In addition, coordinated databases of job seekers and available jobs will increase the ability of industry professionals to locate several candidates with the correct set of skills for each available position.

**Tacoma-Pierce County Growth Partnership**
Ensuring businesses are part of the development of training and education programs for the future workforce is important and necessary. It commonly occurs through a system of advisory boards and sector panels within the workforce development system.

Through cooperation within the Growth Partnership, businesses will engage in the preparation and training of their future employees through a targeted and systematic approach.

**STRATEGY**
Systematically engage employers regarding vacancies in living-wage occupations to ensure preparation matches the need.
**Retain, Grow, and Increase the Number of Businesses and Jobs**

**STRATEGY**
Support economic development efforts to attract, retain and grow businesses that offer high wage jobs.

**Integrate Workforce and Economic Development Efforts**
Continue strategic integration of workforce and economic development professionals – co-locate and work across teams to comprehensively address businesses needs, specifically in the target industry sectors of clean water technology, aerospace, logistics and international trade, cyber security and medical services.

**Tacoma-Pierce County Growth Partnership**
The Growth Partnership is a collaborative effort of community, economic and workforce development organizations, pre-K through 12 education, post-secondary education and military stakeholders. The goal is to align the partners’ efforts to resolve the skills gap in Pierce County, so that residents are empowered to benefit from economic growth and realize the collective vision for the county.

The Growth Partnership vision for Pierce County is a safe, healthy and well-educated community with a robust economy partially due to its great citizens, well-integrated veterans, and trained and competitive workforce.

*No one system or sector can do this work alone.*
ENSURING A PROSPEROUS COMMUNITY

Economic, community and workforce development are the touchstones of a prosperous community. Increased efforts to align talent development with industry demand, while growing industries with living-wage jobs, are essential to continue building a strong economy.

No one sector can do this work alone. It is a balance of public and private partnerships that collectively leverage their assets to achieve globally competitive businesses with access to world-class talent; thereby, increasing employment opportunities for all Pierce County residents.
REFERENCES

Army 2020 Force Structure Realignment Supplemental Programmatic Environmental Assessment, June 2014
Bureau of Labor Statistics, United States, Department of Labor, bls.gov
Census Bureau, United States, Department of Commerce, census.gov
Economic Development Board of Tacoma-Pierce County, 2013 Pierce County Major Employers, edbtacomapierce.org
Employment Security Department (ESD), Washington State, Employment Projections, July 2013
ESD, Washington State, Job Vacancy and Hiring Survey Report, December 2013
Georgetown University, Help Wanted – Projections of Jobs and Education Requirements through 2018, June 2010, georgetown.edu/jobs2018
John Hopkins University, School of Education, Why Early Warning Systems Matter and Where They are Going Next, Robert Balfanz, March 2014
Massachusetts Institute of Technology, Poverty in America – Living Wage Calculator, livingwage.mit.edu
Office of the Superintendent of Public Instruction, Washington, Data Center, k12.wa.us
Office of the Superintendent of Public Instruction, Washington, Graduation: A Team Effort (GATE), k12.wa.us/gate
O-NET, STEM Disciplines, onetonline.org
Opportunity Nation, Measure of America, Opportunity Index, opportunityindex.org
Our Piece of the Pie, Pathways through College: Strategies for Improving Community College Student Success, April 2013
Pierce County Library System, Community Assessment of 55+ Population, 2008
Seattle Jobs Initiative, Entry-level Job Requirements Report, January 2013
Tacoma-Pierce County Chamber of Commerce, Pierce County Economic Index Report, 2013-2014
Tacoma Public Schools, Demographics Summary for Districts over 5,000 Enrollment, February 2012
The NTAR Leadership Center, Employers Strategies for Responding to an Aging Workforce, March 2012
Washington Roundtable/ Boston Consulting Group, Great Jobs within Our Reach, March 2013
Workforce Development Council of Seattle – King County, Talent Pipeline Study, March 2012
Workforce Training and Education Coordinating Board (WTECB), Washington State Board for Community and Technical Colleges (SBCTC), Aerospace Manufacturing Skills, Annual Report 2013, wtb.wa.gov, sbctc.ctc.edu
WTECB, Biennial Employer Survey, 2012
WTECB, Data Warehouse, wtb.wa.gov
WTECB, STEMing the Skills Gap, April 2013
WTECB, Washington Career Bridge, careerbridge.wa.gov
WTECB, Washington Employer Survey, January 2013
YearUp, Annual Report 2012, yearup.org
Acknowledgement

This report is possible with leadership and support from:

WorkForce Central Executive Board
Pat McCarthy, Pierce County Executive
Marilyn Strickland, City of Tacoma Mayor
Joe Lonegran, City of Tacoma Councilmember
Rick Talbert, Pierce County Councilmember
Eric Hahn, Vice President of Organization Development,
General Plastics Manufacturing & Workforce Development Council Chair

Workforce Development Council of Tacoma-Pierce County