

# SCALING CHANGE

## Air Washington Consortium

### Upskilling the Aerospace Workforce in Washington

The spotlight on community colleges has never shown brighter. The nation has made an unprecedented investment in community colleges to simultaneously increase college completion and stimulate economic recovery. Their comprehensive curriculum includes programs of study that enable students to find and retain employment and to continue their postsecondary education through transfer to the baccalaureate degree. With their historic open-access mission, community colleges are seen as an engine of opportunity to support unemployed and underemployed, low-income, first-generation, and other underserved students to secure employment during and subsequent to the Great Recession.

Several federal grants prioritized the role of community colleges in education and training in recent years, and one of the most substantial investments was the Trade Adjustment Act Community College and Career Training (TAACCCT) program of the United States Department of Labor (DOL). Beginning October 2011, these \$2 billion capacity-building grants funded community colleges and their workforce and employer partners to prepare individuals for family living-wage employment that would in turn, provide skilled workers for industry sectors needed to recover and grow the economy.

**Transformative Change** means raising individual, program, organization, and system performance to unprecedented levels without sacrificing the historic commitment of community colleges to access, equity, and opportunity. (Bragg et al., 2014)

Recognizing the potential importance of TAACCCT to community college education, the Transformative Change Initiative (TCI) was funded by multiple foundations -- the Bill & Melinda Gates Foundation, the Joyce Foundation, and Lumina Foundation -- to research and translate lessons learned about sustaining and scaling change in the context of the community college. Our project hypothesized that change could happen in a multitude of places and ways and that careful documentation of change would be needed to capture the collective learning of community colleges under TAACCCT. We anticipated that programs and strategies would change as required by the grant, but so would partnerships, policies, processes, and practices that align with and support those programs and strategies. Some change would be short-term to administer the grant, but

some may last for many years. Relative to TCI, our interest was in long-term change that had the potential to improve performance and result in more equitable outcomes for diverse student groups. Our vision of transformative change is not so much about implementing something brand new and innovative, though we see nothing wrong in this, but rather, about the potential for whatever is being changed to improve results for the increasingly diverse students who seek the opportunity to learn in the community college.

How is transformative change scaled? It occurs through spreading change through an iterative process of sharing, adopting, and adapting. Scaling is also about ensuring that change endures because it is embedded in the core functions of the organization (Century, 2007; Schorr, 2012). The concept of endurance also suggests that change is not abandoned when a grant ends or when staff turn over, but is supported and sustained for the period of time that is necessary to meet students' needs. Scaling is purposeful and strategic such that goals, functions, and results are changed and improved in fundamental ways, and those impacted by the change, such as the students who enroll in community colleges, experience verifiable benefits.

**The TAACCCT program provides capacity-building grants to spur innovation and the development of model training programs at America's community colleges and universities.**

(TAACCCT Round Four Solicitation, 2014, p. 3)



## Context

In the context of the community college, scaling change means outcomes are improved at the same time as access is sustained. Raising the graduation bar should not come at the expense of the most diverse learners in all of higher education (Bragg & Durham, 2012). Thus, transformative change means increasing access and improving outcomes on all levels -- student, program, institution, and system -- to levels heretofore considered unattainable. The continuing priority of transformative change is to continuously improve outcomes such that equity gaps are closed. This is important for many reasons, not the least of which is to reconcile the growing chasm between the haves and have-nots in our country (Martel, 2013). Without deliberate efforts by institutions like community colleges that have a historical commitment to social justice, it may not be possible to close these gaps, and in fact, the gaps may grow. Ultimately, recognizing that change is needed and that community colleges may be part of the solution, as envisioned in new federal investments, we sought to tell the story of how transformative change is being scaled by community colleges.

Based on our team's research on change in the community college, we identified seven guiding principles for scaling transformative change. These principles are not intended to dictate action, but rather inform decision making about change. They reflect theory about scaling and sustainability, reflecting the input of community college practitioners and partners who have been actively engaged in various change initiatives. Using a principle-driven approach puts individuals who know the complexity of their settings, and who understand the diverse student populations who enroll in their programs, in the driver's seat to scale change. Guiding principles also create a blueprint for scaling and sustaining improved student results for all learners that in turn, enhance economic and social impact.

This brief is one in a series of four briefs that tell the story of how scaling happened under the TAACCCT Round One grant. Air Washington is one of 23 Round One TAACCCT consortia that we highlight in our *Scaling Change* series because this consortium has an important story to tell. The content for this story is derived from multiple sources, including publications prepared by and derived from the Air Washington Consortium, the Air Washington Strategy Brief published by TCI (Simmons, Cox, Lyons-Holstine, & Richie, 2015), and phone calls and in-person conversations with individuals from multiple community colleges that were part of the Consortium. We acknowledge and thank all of the participants for joining with our TCI team in this story-telling endeavor.

## Air Washington Consortium

The application for a TAACCCT grant was a popular decision for the community colleges in Washington. Aerospace is widely known to be a driver of the state's economy, and efforts to strengthen this industry sector were well underway at the time TAACCCT Round One was announced by the Department of Labor (DOL). Washington is home to about 650 aerospace companies that account for over 209,000 jobs and approximately 5% of all wages in the state (Air Washington TAACCCT Round One Proposal, 2009), so when aerospace

experiences a downturn the entire state feels the effect. In the years immediately preceding TAACCCT, the aerospace industry saw fierce foreign competition that raised concerns about Boeing's presence in the Seattle area. Case in point: Had The Boeing Company outsourced the 787 Dreamliner from the region, as many as 5,000 workers in Snohomish and King Counties alone could have lost their jobs. Jobs could have been lost in other aerospace companies similarly negatively impacted by foreign trade, including suppliers like Crane Aerospace and Primus International. In total, the impact on Washington's economy could have been dramatic on a short- and long-term basis.

Concerns about the health of the aerospace industry were not taken lightly by the state, however. Through public and private actions, Boeing forged a contract with workers that included significant employment projections for skilled workers by the time the TAACCCT proposal to fund the Air Washington Consortium was submitted to DOL. Also helpful to economic recovery, The Boeing Company was awarded the U.S. Air Force Tanker contract that resulted in the retention of existing manufacturing and assembly facilities in the state. These decisions lifted the importance of postsecondary education and workforce training for aerospace-related occupations to a very high priority level, especially since aerospace has relied so heavily on workers from the baby boom generation who are retiring in large numbers.

Positioned to play a facilitative role, the community and technical colleges in Washington were recognized as a potential partner in preparing workers for the aerospace industry. The community and technical college system is comprised of 34 public institutions that enroll about 386,000 students annually, representing nearly 60% of Washington's public higher education students, including dually enrolled (high school and college) students. Community and technical college students take a wide range of programs, including professional-technical education (PTE) and workforce training programs that are already aligned with aerospace and aerospace-related industries, but also college readiness and basic skills, liberal arts and sciences, and continuing education. Under TAACCCT Round One, the aerospace and aerospace-related programs would be updated and expanded to meet new and emerging workforce needs.

Leading the 34-college system is the Washington State Board for Community and Technical Colleges (SBCTC), an organization with deep experience in scaling change related to the training and re-training of adult workers for living-wage employment. Representative of an innovation that has received attention nationwide is the I-BEST model.<sup>1</sup> I-BEST has been adopted by community colleges in many states, including those affiliated with Accelerating Opportunity<sup>2</sup> and other large-scale adult education reforms. In fact, the TAACCCT Round One solicitation referenced I-BEST as a model having sufficient rigorous evidence (see Jenkins, Ziedenisberg, & Kienzl, 2009) that community colleges should consider in their implementation of a TAACCCT grant.

<sup>1</sup>See the WSCTCS website page on IBEST: <https://www.sbctc.edu/colleges-staff/programs-services/i-best/>

<sup>2</sup>See Accelerating Opportunity, Jobs for the Future: <http://www.jff.org/initiatives/accelerating-opportunity>



## Timeline

October 2011	Round One TAACCCT grant of \$20M awarded to Air Washington
September 2012	Grant implementation achieved in all 11 colleges
January 2013	Midterm progress report indicates that Air Washington exceeded its goal of 2,615 trainees
September 2014	No cost extension awarded by the Department of Labor
Mid-2015	The number of Air Washington trainees hits 4,722

and program completion, meet industry needs by developing career pathways, and enhance technology-based capabilities. Efforts made by the Consortium to address these priorities are described briefly below.

## Aerospace and Aerospace-Related Programs and Pathways

Air Washington focused on implementing programs of study addressing a wide range of aerospace and aerospace-related industry sectors, including aircraft assembly, advanced manufacturing/machining, aircraft maintenance, electronics, and composite fabrication/repair. These programs were designed to prepare students for careers in aerospace assembly mechanics; machinists and machinist helpers (e.g. tool, gear, and assembly), computer numerical control (CNC) operators and programmers; FAA-certified aircraft maintenance technicians; electronics and electronics calibration technicians; nondestructive testing technicians and specialists; composite designers, fabricators, and repair technicians; and material engineering and engineering support technicians. These aerospace career pathways offer sequences of courses that lead to both certificates and degrees and family living-wage careers.

Diverse student groups were recruited by the colleges, in accordance with the TAACCCT program, with special attention paid to groups historically under-enrolled in aerospace-related education and training programs, including women and students of color. Veterans returning from Iraq and Afghanistan were another group that was given substantial attention throughout the grant. The total number of students enrolled in the grant was over 4,700, which far exceeded the original estimate of 2,615. The percentage of women trainees was almost 11% of this total, and just over 650 documented veterans enrolled, making up about 14% of the total participant group (Kershner et al., 2015).

## What is the Change?

The Air Washington Consortium received a \$20 million TAACCCT Round One grant that involved the following community colleges and partners (see Table 1).

The Consortium was led by Spokane Community College whose president served as a strong advocate for aerospace education, having served in the military as a pilot. By sharing his vision, other college presidents expressed interest in joining together to better meet the state's aerospace workforce needs. Many of the community and technical colleges already had programs in relevant fields but they lacked adequate funding to maintain the most up-to-date curriculum and technology. Training on composite materials is an example of a major change that many colleges wanted to make but lacked adequate funding prior to TAACCCT. Finding qualified instructors who could teach aerospace-related subjects at the wages that the colleges could pay was also problematic, resulting in long waiting lists for students. Moreover, some students who sought to enroll were unable to meet entrance requirements due to inadequate mathematics competencies and English literacy, including a large and growing immigrant population in the Puget Sound area as well as Latina/o populations in several areas of the state.

The Air Washington Consortium chose a comprehensive approach to implementation in terms of programs and strategies under the grant. Choosing to address all four priorities areas specified by TAACCCT Round One, the Consortium's application sought to accelerate progress for low-skilled and other workers, enhance student retention

**Table 1.** Air Washington Community and Technical Colleges and their Partners

Washington Community and Technical Colleges	Partners
<ul style="list-style-type: none"> <li>• Big Bend Community College (BBCC)</li> <li>• Clover Park Technical College (CPTC)</li> <li>• Everett Community College (EvCC)</li> <li>• North Seattle Community College (NSCC)</li> <li>• Olympic College (OC)</li> <li>• Peninsula College (PC)</li> <li>• Renton Technical College (RTC)</li> <li>• Skagit Valley College (SVC)</li> <li>• Spokane Community College (SCC)</li> <li>• South Seattle Community College (SSCC)</li> <li>• Wenatchee Valley College (WVC)</li> </ul>	<ul style="list-style-type: none"> <li>• Aerospace Joint Apprenticeship Committee (AJAC)</li> <li>• Center of Excellence for Aerospace and Advanced Materials Manufacturing (EvCC/CoE)</li> <li>• Inland Northwest Aerospace Technology Center (SCC/INATC)</li> <li>• Aerospace and aerospace-related employers</li> <li>• Workforce Development Councils</li> </ul>

Looking at credentialing outcomes pertaining to the grant, certificates took on an especially important role in the Air Washington Consortium, exceeding degree conferral by a substantial amount. The number of short-term certificates awarded under the grant reached nearly 4,000, with some students earning more than one; nearly 800 long-term certificates were awarded as well. However, two-year degrees lagged behind the Consortium's initial estimates, reaching nearly 360. Many reasons explain this outcome, but a particularly compelling one is the urgency with which some students obtained any credential that would enable them to secure employment.

## Industry-related Stackable Credentials

As part of Air Washington, a number of different types of certificates were implemented. For example, five colleges examined the FAA part 147 aircraft mechanics to be able to offer a competency-based curriculum aligned to European aircraft mechanic certification. Faculty working in these five colleges met quarterly throughout the TAACCCT grant to unify and improve their programs and help students transfer and receive credit for previous experience. To achieve certification, the FAA invited the five colleges to perform a pilot project utilizing the FAA's "Proficiency of Skill" curriculum. The Consortium's goal was to bridge the FAA certification to European certification and make aircraft mechanics globally employable, and while this goal was not achieved fully under the grant, it was viewed as a potential future addition to the state's aircraft mechanic programs.

Also with respect to certification, the Air Washington colleges experimented with the National Career Readiness Certificate (NCRC). The Spokane Area Workforce Development Council (SAWDC) had experience with employers who respect the NCRC, as did the Spokane Community College, which led to the recommendation to implement the NCRC under TAACCCT. Thus, the Air Washington Consortium funded the NCRC, including funding test monitors for adult learners (some colleges also offered the NCRC to high school students though this effort was not funded by TAACCCT). Results of implementation of the NCRC were mixed. Some colleges had success adding the assessment to their pre-employment training programs, and others did not find employers interested. Interestingly, the consortium leadership believed the NCRC demonstrated more success at the secondary education than college level, because the credential added more value for individuals with limited prior work experience than for more mature workers. The Consortium colleges expect that as more employers in the Puget Sound region use the NCRC in hiring decisions, adoption by other colleges in the state will increase. Already, many Boeing facilities had named the NCRC as a preferred credential in the hiring process, which may eventually fuel other aerospace-related employers to adopt.

Finally, while not a certificate per se, achieving credit for prior learning was an important strategy associated with Air Washington, particularly for veterans seeking to transition to civilian life. Air Washington set the goal of 262 students applying for prior learning assessment, and 2,620 credits awarded through PLA over the life of the grant. While the initial barriers to this goal were substantially larger than expected, Air Washington was able to capitalize on a number of complimentary efforts to accept military credit. Included among these efforts was SSB 5969, passed by the 63rd Washington State legislature, that requires colleges to put policies and procedures in place to award credit for military training.

Also, specific to credit for prior learning and the aerospace workforce, the Aerospace Joint Apprenticeship Center (AJAC) capitalized on Air Washington funds to facilitate military aircraft mechanics to earn FAA certification by documenting their experience in FAA 8610-2. This process bypasses the college-credit transcription process by allowing veterans who successfully pass FAA certification to be awarded college credit.

## Navigators and Student Success

According to a leader of the Air Washington Consortium, the strategy that proved most important to the Air Washington grant over time was the navigator. Virtually every community and technical college in the Consortium employed a navigator or shared a navigator with its Workforce Development Councils or Workforce Investment Boards (WIBs).

Whereas there were many common functions, the navigators performed their roles in ways that met the needs of their students and colleges. Navigators guided students into the programs of study in ways that made sense on their campuses, including providing them with information about the application process and preparing them for interviews with program faculty who make admissions decisions. Improving student retention was another common role of the navigators, including assisting students to locate funding for child care, transportation, English Language instruction, food stamps, and whatever else was needed to retain them to program completion.

Navigators also acted as a vital link between education and employment by maintaining close contact with employers to understand their job vacancies relative to the completion of qualified students who were nearing the end of their programs. Their ability to translate competencies taught through the curricula into competencies that employers sought in new employees was invaluable to the success of the grant. Several Consortium leaders attributed the success of Air Washington to the navigators more than any other group associated with the grant. Knowing that so many groups contributed to the Consortium's success, this is very high praise.

“The navigator was one of the bigger home runs that we hit. We had no idea it would work out so well. Besides their working one-on-one in different places, they provided on-going care and feeding at the student level, and they made strong connections to business. They were like a bridge between the students and businesses... Statewide, that was a very successful strategy.”

(Air Washington Consortium leader, February 2016)



## Sustaining the Change

The Air Washington Consortium's efforts to sustain change rested largely on the public-private partnerships that were started or strengthened during the grant. Through collaborative efforts to design and develop curriculum, to reform facilities, and install new equipment, a network of partners developed to support the aerospace and aerospace-related workforce. Faculty members, some of whom were part of the grant at the beginning and some of whom were recruited later, were instrumental in developing coursework that standardized competencies, often for the first time. Whereas not every participant found employment in the aerospace industry, a high percentage did. According to Kershner et al. (2015), between 72% and 81% of participants obtained jobs, exceeding the Consortium's employment target of 70%, with about 15% of the graduates being employed by The Boeing Company. A comprehensive set of strategies was deployed to sustain the changes associated with Air Washington, and a few of them are described briefly below.

“Although the Air Washington grant is ending, I believe the industry partnerships and the specialized curriculum will continue long after the grant ends. The curriculum and equipment now are in place for these programs and we know the demand for future employees remains strong.”

(Governor Jay Inslee in Kershner et al., 2015, p. 9)

### The Coordinated Aerospace Sector Strategy

Since before the Air Washington Consortium formed, relationships existed between the Washington community and technical colleges; the workforce development system, including the workforce investment boards (WIBs); and the large number of aerospace and aerospace-related employers across the state. As noted earlier, concerns about the aerospace workforce rallied the governor and numerous public agencies, including the WCTCS, and the private sector in efforts to find solutions. For example, in 2010 The Boeing Company utilized a workforce development team to work with the community and technical colleges, Workforce Development Centers (WDC), and high school skills centers to communicate workforce needs, technology changes, job placements, and other common concerns (Simmons, Cox, Lyons-Holstine, & Richie, 2015).

Also, the Aerospace and Advanced Manufacturing Center of Excellence (COE) acted as a point for the Air Washington Consortium, and the COE continues to provide subject matter expertise to address employee needs for workforce training related to aerospace. Located at Paine Field, adjacent to Boeing's

enormous Everett plant, the COE supports and coordinates with the 34 community and technical colleges in the colleges' efforts to train a skilled workforce. The COE assisted the colleges to identify programs of study that required updating, including the critical areas of composite manufacturing and repair, and coordinated industry support that was instrumental to building this new curriculum to fruition.

### The Air Washington Consortium

Washington's community and technical colleges collaborated throughout the Air Washington Consortium to build on previous relationships and enhance collaborative efforts toward a unified goal of growing the skilled aerospace workforce. The Consortium engaged administrators of the 11 community and technical colleges in regular quarterly meetings to advance the scope of work, and support collaboration among groups of persons in similar roles (e.g., faculty, navigators) who came together to develop curriculum; to design student recruitment, retention and employment strategies; and to address challenges that could have derailed the Consortium without cohesive execution. Though the efforts to develop standardized curriculum initially raised concerns among some faculty, over time the faculty reached consensus on a common curriculum and held workshops that included industry subject matter experts and faculty from multiple colleges, including colleges beyond Air Washington. Faculty members also participated in seminars about intelligent design of curriculum for both classroom and online learning environments. Rather than working in isolation, as sometimes happens when employees work autonomously, faculty involved in Air Washington collaborated on curriculum development that was integral to the grant. Collaboration was critical to continuing the programs of study and ensuring that the WCTC system is operating in a coordinated fashion to meet the needs of aerospace aerospace-related employers.

### Scaling the Change

The Air Washington Consortium has dedicated time and effort to spreading change to other colleges and workforce providers within and beyond the state, and these efforts have been important to scaling change. Somewhat unique to this TAACCCT Round One consortium was the passage of a series of state laws to coordinate, support, and continue to advance aerospace and aerospace-related education and training. This section provides a brief summary of the legislation that was conducive of change during the Air Washington grant and instrumental to sustaining and scaling change since the grant ended September 2015.

In 2012, the state legislature created the Washington Aerospace and Advanced Materials Workforce Pipeline Advisory Committee to align aerospace training programs with industry needs. This group continues to provide a leadership role in the state, recommending additional funding and overseeing grant-funded projects that target aerospace workforce capacity issues. Chief among their recommendations was Engrossed House Bill (EHB) 2088, which passed in November 2013. The Bill appropriated additional funding to the Washington community and technical colleges to increase high-demand aerospace enrollment slots by an additional 1,000 annually

in high-demand aerospace training programs. The 21 community and technical colleges were awarded EHB 2088 funding for 35 programs. Since funding began July 1, 2014, the colleges have demonstrated a headcount enrollment of nearly 5,000 for over 3,100 full-time equivalencies (FTE).

With respect to EHB 2088, a policy associate with the SBCTC, noted the legislation is important to sustaining and spreading some aerospace programs of study and strategies developed under Air Washington to other colleges in the state. However, this legislation should not be construed as attributable solely to the Air Washington grant. The dynamics of the state's aerospace workforce needs that preceded and extends beyond the Round One TAACCCT grant, and the many public and private organizations that support these efforts, worked in concert on this important piece of state legislation.

“The state's \$8 million investment allowed the community and technical college system to maintain momentum in aerospace training and workforce development even after the TAACCCT and Air Washington grants were finished. Although those two funding sources came to an end, the synergy and commitment within our system of colleges continues, largely thanks to the state support.”

(Kendra Hodgson, Washington State Board of Community and Technical Colleges, June 14, 2016)

## Challenges to Scaling Change

Anytime changes are made, there are bound to be challenges. Change can be confusing, controversial, complicated, and downright exasperating for those who are trying to do things differently. In the case of the Air Washington Consortium, variation in existing aerospace and aerospace-related curriculum from one college to another made reaching consensus difficult to achieve at the start. College faculty had limited experience standardizing curriculum in the way the TAACCCT grant envisioned, so the reasons for common curriculum needed to be explained, scrutinized, and eventually adopted across the Consortium. These were not easy discussions because the curriculum change required fundamental reform that included faculty reforming their courses, teaching strategies, and assessments.

In addition, changes made to key strategies such as student recruitment and advising, preparatory curriculum, and prior learning assessment (PLA) required substantial time and attention, in some cases more time than practitioners expected. As a result, some strategies scheduled for full implementation took longer than the grant period provided to mature. For example, strides were made to serve veterans with PLA, eventually reaching over 650 individuals as was noted earlier in this brief, but several leaders of the Consortium

expressed a desire to do more to serve veterans with PLA. They indicated that the Air Washington colleges, along with other colleges throughout the state, continue to work together to find ways that veterans can be better served with credit for prior learning and other services that provide support for their participation and successful completion.

Third, the scope of implementation of programs and strategies involving the 11 colleges and their many partners represented a potential challenge for the Consortium. Whereas several of the colleges had long experience with aerospace and aerospace-related industry, some had very little. For those initiating new programs, the expedited timeline of the grant meant decisions had to be made quickly and implementation had to move forward with deliberate haste. As one Consortium leader observed, “We were building the plane as we were flying it.” Given the urgency to implement, this observation makes perfect sense and explains how many people felt. The good news is that the expedited timeline of the grant meant change happened quickly. The bad news is that the devotion to immediate implementation meant Consortium members had limited time to think together about building capacity to support change into the future. To many, the grant was already viewed as stretching capacity in ways that the colleges had never experienced, so asking for commitments beyond the grant was viewed with skepticism. As noted previously, new state legislation enabled some of the colleges to sustain full time equivalent (FTE) enrollment, but some strategies associated with the grant required college funding, such as the navigator positions, or they could not be sustained. These were difficult decisions because college leaders saw benefits but felt constrained in their ability to reallocate institutional reserves in the relatively short time period from when evaluation data were obtained and budgets were executed.

## What We Learned about the Scaling Process

As noted above, scaling change through the Air Washington Consortium involved an extensive network of public and private partners throughout the state. Scaling change statewide requires careful planning and execution, with the following three factors deserving mention as especially important lessons about scaling change through Air Washington.

### Transformative Leadership

As mentioned, the partners involved in scaling change were diverse with respect to their enterprises and also diverse in terms of their locations. Whereas many employers are situated in the Puget Sound region, Washington is unique in that aerospace-related employers are geographically distributed throughout the state, and the leadership for change was also distributed throughout the state. Formal leaders were engaged in the Air Washington Consortium's management, but so were leaders at all levels of organizations. College administrators and grant leaders were joined by faculty and staff who individually and collectively envisioned themselves as being part of something bigger and better than what existed before. For example, the Consortium's efforts were deliberately and strategically focused on serving student populations that have been underrepresented in higher education historically, including



students of color, women, and low income, especially individuals left unemployed and underemployed by the Great Recession, veterans, and others. The collective effort to serve and eventually exceed the grant's performance goal related to veterans provides an important piece of tangible evidence of the transformative nature of the grant.

## Policy Change

As noted earlier in this brief, many aspects of the Air Washington Consortium were bolstered by the state's policy context. Unlike many other TAACCCT consortium grants that operated at the local level primarily (see Bragg et al., 2014), Air Washington pursued an industry-sector strategy, accompanied by coordinated state-level policy codified in statute and coordinated by public and private partners that continues to provide leadership for meeting aerospace and aerospace-related workforce needs. Given the enormous scale of the changes required of the Air Washington Consortium, and the subsequent partnerships that continue to sustain and strengthen the program efforts, it was especially important that scaling efforts are aligned and pursued in a coordinated statewide fashion. From all accounts, coordination is done by college leaders with support from the SBCTC, industry and workforce leaders, political leaders, and others who join forces when support is needed.

## Communication and Dissemination

Air Washington Consortium leaders took great pride in communication and collaboration activities undertaken by the 11 member community colleges. Recognition that communications could make or break the Consortium, leaders emphasized regular communications through quarterly meetings, where physical presence was enforced. These meetings gave participants a chance to ask burning questions and express doubts and concerns openly and honestly. They provided a safe space for individuals to engage in thoughtful dialogue to resolve differences that are bound to emerge with such a large undertaking. Consortium members observed transparency in decision-making by the Consortium leadership, and they respected the leaders for it. As a result, transparency instilled confidence that was needed to engage everyone in doing meaningful work. Moreover, transparency enabled individual and organizational learning to occur so that learning could be passed on to others within and beyond the Consortium.

Last, the Air Washington Consortium leadership took its responsibilities to document what was learned seriously. The development and dissemination of a book, *Creating Careers in Aerospace: Air Washington*, by Jim Kershner and the Historylink Staff (2015) provides a comprehensive story of what the Round One TAACCCT grant was about, how it evolved, and what it meant to all those involved. In addition, a key member of the Consortium leadership testified to the U.S. Congress on Air Washington

Consortium's contributions to the aerospace industry, highlighting opportunities created by the TAACCCT grant that had not existed before. Through shared efforts developed during the grant, there is optimism that programs and strategies that yielded successful outcomes will live beyond the grant. Time will tell if this is so.

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Themes	Guiding Principle Statements	Your Experience
<b>Transformative Leadership</b>	<p>▶ Transformative change is scaled when “transformative leadership” is distributed, supported, and rewarded. ▶</p>	<input type="text"/>
<b>Equity and Outcomes</b>	<p>▶ Scaling transformative change requires a deep and abiding commitment to simultaneously improving equity and outcomes. ▶</p>	<input type="text"/>
<b>Strategic Capacity Building</b>	<p>▶ When organizational capacity for change is strategically planned, developed, and continuously implemented, transformative change is scaled. ▶</p>	<input type="text"/>
<b>Policy Change</b>	<p>▶ Systems, organizations, and individuals design and implement policy to guide, support, and scale transformative change. ▶</p>	<input type="text"/>
<b>Partnerships and Networking</b>	<p>▶ Individuals create and use partnerships and networks to access expertise, maximize resources, and form the backbone to drive and support transformative change. ▶</p>	<input type="text"/>
<b>Data Utilization</b>	<p>▶ Scaling of transformative change occurs when data collected through ongoing and responsive evaluation are used to change and grow impact. ▶</p>	<input type="text"/>
<b>Intentional Communications</b>	<p>▶ Transformative change happens when individuals with deep knowledge of change communicate to help others change in their contexts. ▶</p>	<input type="text"/>

