

U On Research and Leadership PDATE



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Editor's Note: This edition highlights research and policies related to applied baccalaureate (AB) degrees, relatively new to higher education, beginning with an interview conducted with Dr. Holly Zanville, a Senior Programs Director at Lumina Foundation for Education. Next, we detail what we have learned so far in our research. Representatives from all six states that are currently being studied as part of OCCRL's AB project then respond to a series of questions regarding these degrees. Loretta Seppanen, recently retired Associate Director from the Washington State Board for Community and Technical Colleges, details firsthand the creation and implementation of Washington's AB degrees at the community college level. Finally, Malcolm Grothe from Seattle Community College provides insight regarding employer and graduate perspectives on the value of AB degrees. We sincerely hope that readers of this edition of UPDATE find value in the perspectives offered regarding these degrees.

This edition of our UPDATE newsletter, like all of our applied baccalaureate research efforts, is dedicated to Barbara K. Townsend, who inspired and led our research team as Principal Investigator from September 1, 2007 until her death on June 11, 2009. Dr. Townsend was Professor of Higher Education and Director of the Center for Community College Research at the University of Missouri-Columbia. This project was a culmination of a noteworthy career as a researcher, teacher, and mentor who is sorely missed by her many colleagues and friends. Our research team strives to achieve the high quality that Barbara sought in this work as in all aspects of her professional career.

The Lumina Perspective: A Conversation with Holly Zanville

by Collin M. Ruud

Recently, I had the opportunity to talk with Dr. Holly Zanville, a Senior Programs Director at Lumina Foundation for Education. She has been program officer for our applied baccalaureate project since its start. The purpose of this interview was to learn more about Lumina Foundation and how our applied baccalaureate project ties in to some of the Foundation's objectives.

UPDATE: Broadly, in terms of the Lumina Foundation, what are the goals and what are its overarching objectives?

Dr. Zanville: Lumina has a "Big Goal," to increase the nation's level of college degree attainment (baccalaureate and associate degrees and certificates) to 60% by 2025. Over the last couple of decades that number has remained essentially static, at the 40% level. We believe that reaching this goal is necessary to be competitive internationally as many of the industrialized nations are already well past the 40% level -- and to meet our nation's workforce needs. Lumina recently formulated a strategic plan to focus our efforts on achieving our goal. We've also identified three critical intermediate outcomes that are necessary if we are to reach that goal of 60%. One of the areas is preparation, that all students are prepared academically, socially, and financially for college success. The second is success, that higher education institutions and other institutions support the success of all students, particularly low-income and first-generation students, students of color, and adult learners. The third is productivity, that higher education systems become much more cost-effective in order to meet the needs of students and society at large. We see this as a "three-legged stool;" we need all legs of the stool to be strong and well in place to reach our Big Goal.

UPDATE: What is your specific role in Lumina, and what projects do you work with?

Dr. Zanville: We have three teams at Lumina focusing on our three intermediate outcomes -- one focused primarily on preparation issues, one on success and the third on productivity. I chair our internal Success Team, which has a number of strategies that will help us move

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toward achieving our outcome. Examples of work include our Achieving the Dream initiative; efforts to work with Minority Serving Institutions; efforts around adult learners; research on how new benefits are helping active military and veterans access higher education; research on international models, such as the Bologna Process, that may have potential to increase attainment in the United States; work on student learning outcomes; and database work related to alignment of higher education with the workforce. So you can see there is a broad array of efforts that fall within the Success area. As we have studied strategies to help the nation move to our 60% goal of degree attainment, we have understood that the nation cannot get there with a sole focus on the traditional-age student population (high school to college). We also must increase degree attainment among the adult population. Therefore, we are in the process of expanding our efforts in the adult learner area. We recently released a Request for Proposals to support large-scale efforts to help adults who have prior college credit but have not received a degree or credential to finish one.

UPDATE: As I am sure most of our readers will know, OCCRL was given a grant from Lumina to work on applied baccalaureate degrees. How does research on applied baccalaureate degrees fit into Lumina's major and intermediate goals?

Dr. Zanville: We have been placing more attention on the adult learner population, knowing that statistics show that every one of the 50 states has a large number of working age adults with no college degree. That population, aged 18-64, typically accounts for 60 to 75% of each state's population. Only a small number of states have working-age populations in which 40% have at least an associate's degree. So, we know that for states and the nation to meet workforce needs, we need to better reach the adult market. The latest research shows that about two-thirds of current job openings will require at least some post-secondary education or training. As we look at how the labor market is likely to expand, it is clear that adult postsecondary education must become a mainstream component of workforce development. This is going to require that a large number of adults quickly acquire basic skills and find pathways to postsecondary attainment and employment. We know that it is going to require that we integrate adult education into a more unified workforce system, and help states leverage various appropriate Federal and employer-based resources which are related to the workforce.

This has impacted our understanding of the applied baccalaureate. This degree is of value particularly to people already working in certain technical and occupational fields, who for various reasons want to complete a baccalaureate. Many of them already have an associate's degree and are working in the field. When they come back for baccalaureate degrees, many do not fit well into some of the more traditional baccalaureate programs. These students are typically working, so they may need accelerated or alternative delivery models that will help them achieve their goals. Lumina had wondered, as we began to focus more attention on adult learners, whether the developments we had

begun to witness in more and more states around applied baccalaureate degrees at both community colleges and four-year institutions were brief phenomena due to some job shortages that were occurring, or if this was a sign of major changes as workforce demands might be requiring more applied degrees. That was the point at which we thought it would be helpful to support research to study both the community colleges and four-year institutions that were offering applied baccalaureates, as well as the state policy environment that was authorizing changes to the missions of some community colleges to offer selected baccalaureate degrees.

UPDATE: Are there any other Lumina-funded projects that look at similar programs around the nation?

Dr. Zanville: We have not funded any other projects specifically in the applied baccalaureate area. We have supported work at the Georgetown University Center on Education and the Workforce, led by Tony Carnevale, to look at the alignment of higher education to workforce. He has also been doing some very interesting work around certificates. Some certificates and associate degrees have more economic value than some baccalaureate degrees, which we think is an important finding. This may additionally contribute to our understanding about the importance of applied baccalaureate degrees.

We have not funded additional applied baccalaureate degree work because we've been waiting to see what the findings would be from [OCCRL's applied baccalaureate] project. Even in the last couple of years as you have been working on your project, we have seen more states either passing legislation to permit applied baccalaureate trials, or considering legislation. We are particularly interested in your second phase research, the case studies, which will help us better understand the development and value of these degrees. Because of this growing interest in applied baccalaureates, especially at community colleges, Lumina will sponsor a convening in fall 2010 to bring together individuals in both state policy and research to learn about the findings in your study, and share their own experiences. Not only do we want to hear from states that have been doing these degrees awhile, but also from states considering these policies, and the implications for the future with this new set of developments.

UPDATE: One of your recent publications, *Focus*, which came out in Fall 2009, talks specifically about how some institutions are addressing the needs of adult learners. Could you elaborate on some of these promising practices you have highlighted in that *Focus* publication? (Link: http://www.luminafoundation.org/publications/focus_archive/Focus_Fall_2009.pdf)

Dr. Zanville: We know that adults who come back to school, particularly working adults, have a number of characteristics different from traditional-age students, and that institutions have to make efforts to serve them with innovative practices. Some institutions have reorganized their conventional full-time programs into shorter modules and given attention to efforts

that stack credentials, so programs can be packaged into degrees and certificates more easily. Some institutions are making more extensive use of career ladder approaches in high-growth occupations, which are enabling students to earn industry-recognized certification and move into higher wage occupations more quickly. Some programs are offering open-entry, open-exit classes and weekend classes, along with course offerings that are combining distance education with on-campus support. There are some institutions that are creating compressed or short-term intensive or accelerated programs. Some states and institutions are working together collaboratively to redesign programs to specifically target adult learners. There are certain policy reforms that some states have enacted to help address the needs of adults. I would put the applied baccalaureate work in that area. We are also seeing more attention on prior learning assessment policies; every adult that returns to school is likely to have acquired knowledge and skills learned outside of college which might be applied to college attainment. This is an area in which Lumina is likely to be supporting more work. We also support policies which provide incentives to institutions for completion and student success (performance-based funding approaches) rather than access only (enrollment-based funding approaches). There are many states and many institutions that have promising programs, but we think much more work needs to be done in this area.

UPDATE: Are there any other things in the future for Lumina's research or policy work that relates to the areas of access, success, and adult learners?

Dr. Zanville: As I mentioned, we have just issued an RFP dealing with increasing adult degree completion through large-scale efforts which target adults who have earned some college credit. We know the adult population is a pretty diverse group, composed of several categories: adults that do not have a high school diploma; those that have a high school diploma but no college; those that have a some college but no degree; and those that even have a degree but are returning to college because they are either retraining or need advanced training as they move through the job market. Different strategies are needed for each of these groups, and we're trying to carefully target which strategies have the most potential for each.

In terms of other work, we are very interested in prior learning assessments and have been supporting some research, conducted by CAEL, which looks at the breadth of prior learning assessments in college. When students go through prior learning

assessments, does that help them move toward degree completion? What are the other impacts? CAEL's research has found that prior learning assessments do help students complete their degrees more quickly. We think there is tremendous promise around expanding prior learning assessments as a strategy for adult degree attainment. A partnership is emerging among key groups that work in the prior learning assessment area. This includes CAEL, which has long experience with e-Portfolios; ACE, which has experience in crosswalks used to apply military training and corporate work to postsecondary credit in specific programs; and the College Board, which has long experience with the CLEP test. We have been working with these organizations on the design of a national, virtual prior learning assessment service that would pull together the various approaches to prior learning assessment into a Web- one-stop, so that students who do not have a current institution but want to return to college might be able to access prior learning assessment services. We think it makes good sense that prior learning assessments are among the elements that need to be in place for institutions to serve adult learners more effectively. Prior learning assessments may also be useful for students in applied baccalaureate programs.

UPDATE: Do you have any additional comments?

Dr. Zanville: The evolving arena of applied baccalaureates is interesting to all of us at Lumina, because the applied baccalaureates are clearly examples of close alignment between higher education and workforce. We think there are important lessons to learn from the developments of applied baccalaureates, both in four-year institutions and the community colleges, and especially look forward to learning the results of your case study research in the states that are leading these applied baccalaureate efforts. ♦

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The Applied Baccalaureate Degree: What We Have Learned So Far

by Collin M. Ruud and Debra D. Bragg

In 2007, researchers from the University of Illinois and the University of Missouri began research, funded by Lumina Foundation for Education, that examined the phenomenon of applied baccalaureate degrees in the United States and how well they served the needs of adult learners, a primary population affected by this often workforce-centered degree.

The purpose of this research was two-fold: first, to document the extent to which the degrees are offered across the U.S., including reporting on which states offered the degrees and the number of institutions (separated by two-year and four-year) within each state that offer the degree; and second, to examine the unique policy contexts within which the states create and support these degrees now and in the future. To that end, we set about conducting research in two phases: first, to examine the breadth of these degrees across the United States; and second, to examine common practices and policies in exemplary states which award applied baccalaureate degrees.

DEFINITION

Following a thorough review of literature on applied baccalaureate degrees, and finding some disparity when defining applied baccalaureate degrees, we sought to establish a formal definition as a culmination of what we and others have learned. In our first published report on these degrees, we defined an applied baccalaureate degree as “a bachelor’s degree designed to incorporate applied associate courses and degrees once considered as ‘terminal’ or non-baccalaureate level while providing students with higher-order thinking skills and advanced technical knowledge and skills” (Townsend, Bragg, & Ruud, 2008, p. 4).

A couple important features of applied baccalaureate degrees are included in this definition. The first is the focus on facilitating transfer from degrees that have traditionally been considered terminal. For most states, this includes many of the technical associate degrees of applied science (AAS), although some states mention the use of terminal associate of science (AS) degrees in lieu of the AAS designation (although for our purposes, we use the term “AAS” to indicate applied associate degrees generally). Another important feature is the curriculum of the baccalaureate-level program. Our first phase research supports Ignash and Kotun’s (2005) research, that suggests three distinct models of applied baccalaureate degrees: a career ladder model, which focused primarily on industry-specific training as baccalaureate-level coursework; an upside-down or inverse model, which took a number of AAS degrees, regardless of field, and added a significant amount of general education and elective coursework to satisfy credit requirements; and a management model, which also took several different AAS degree fields but instead placed a business- and management-oriented capstone

on the applied associate coursework. Although widely different from one another, each of these models purported to incorporate some level of “higher-order thinking skills” within the curriculum.

PHASE ONE: INVENTORY AND POLICY BRIEF

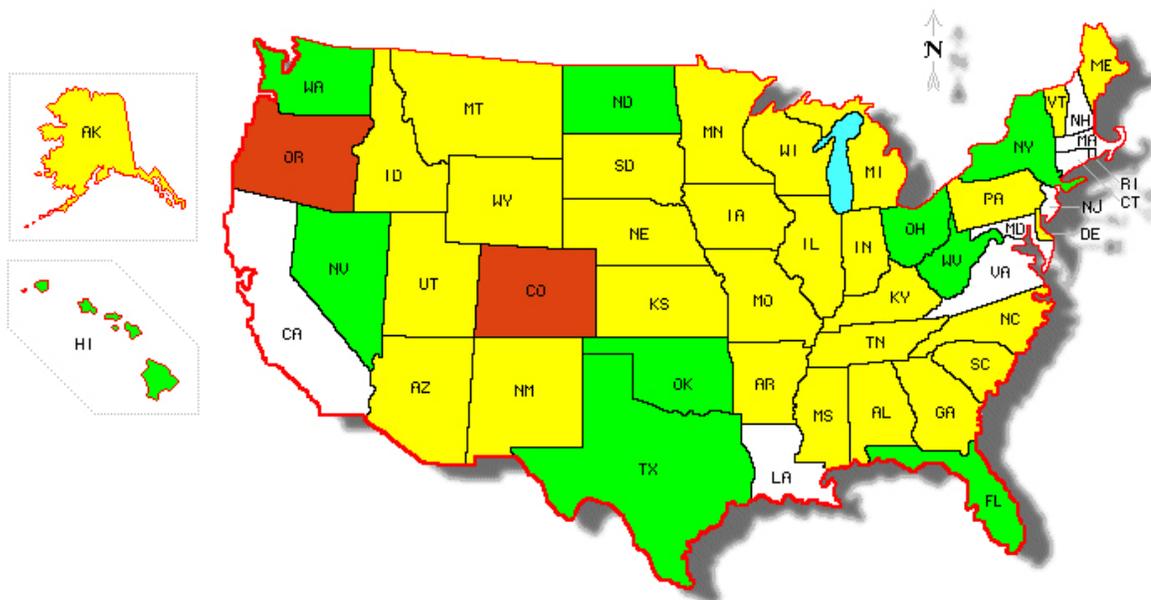
The overarching goal of our project’s first phase was to document the extent of applied baccalaureate degrees across the United States, paying particular attention to which states and institutions offered these degrees. To that end, our initial approach was to use the Internet for preliminary data collection. Using various search engines (Google, LexisNexis, Westlaw) and professional contacts, researchers at the University of Illinois and the University of Missouri compiled information on applied baccalaureate degrees, including legislation that addressed these degrees, institutional information on these degrees, information regarding their curricula, news reports, and other pertinent documentation. The data were entered into a preliminary database and updated as new information became available.

Recognizing that this preliminary inventory would be incomplete due to the limitations of searching the Internet for programs, researchers also identified state-level administrators within all 50 states who could serve as primary points of contact for each state. These administrators were contacted by phone or e-mail, given copies of our preliminary inventory drafts, and asked to address any gaps in our data. We were able to contact at least one individual in each state who could provide us with a correct listing of public institutions that awarded applied baccalaureates and additional details on the degrees. State officials who allowed it were interviewed further, regardless of the extent to which applied baccalaureate degrees were offered. For example, a state official from Virginia, a state that did not award applied baccalaureate degrees, was able to provide us valuable information through an interview about the impetus behind their decision not to award such degrees (Bragg, Townsend, & Ruud, 2009).

From this data collection, we assembled a full 50-state inventory of applied baccalaureate degree programs. We found that, of all 50 states, 39 states awarded applied baccalaureate degrees in at least one public institution. Of these 39, 29 states awarded these degrees at only the four-year institutional level, while the other 10 awarded the degrees both in four-year institutions as well as two-year institutions. These 39 states were well spread-out around the U.S., although seven of the states that did not award such degrees were located in the Northeast (see Map 1 on page 5). These findings made it clear that the applied baccalaureate degree was a more widespread phenomenon than we

Map 1: Applied Baccalaureate in the Public Sector

- - Traditional Baccalaureate Degree-Granting Institutions Only
- - Both Associate Degree-Granting and Traditional Baccalaureate Degree-Granting Institutions
- - New Activity Related to the Applied Baccalaureate



had initially thought. Since the publication of the inventory, several states have had some activity related to applied baccalaureate degrees: Oregon passed legislation in 2009 authorizing an implementation plan for these degrees to be generated by November 2010; Michigan has considered the creation of community college baccalaureate degrees in certain fields, including traditionally applied fields such as concrete technology; and Colorado's legislature has given Colorado Mountain College, a two-year institution, authorization to award up to five baccalaureate degrees, which could include applied baccalaureate degrees.

In addition to the publication of our inventory report (Townsend, Bragg, & Ruud, 2008), we also compiled information from our interviews with state officials to determine themes and patterns regarding the policy considerations of such degrees. Although many states cited that such degrees were created largely as part of an institutional effort (e.g. North Dakota and Wyoming), we found several states that had initiated applied baccalaureate degrees as part of a larger, statewide effort (e.g. Texas, Oklahoma, and Washington).

States that had implemented degrees as part of a state-level strategy cited several important factors that led to the degree's implementation. Foremost among these factors was the need to facilitate transfer and baccalaureate completion options for a greater number of students, especially those with traditionally-terminal AAS degrees. In some states, a rise in demand had occurred, either due to an expanding job market with higher educational requirements, or through employees requiring

baccalaureate degrees to progress further up their particular career ladder.

Another factor identified through our research included supporting the needs of nontraditional students through innovative new policies and programs that include the applied baccalaureate degree. For these states, the applied baccalaureate degree provides an educational opportunity for working-age adults with terminal degrees, but also allows the institution to pursue more accessible delivery methods such as online delivery to meet the specific needs of nontraditional adult students, many of whom are geographically place-bound.

A third factor identified by states as a reason for creating and supporting applied baccalaureate degrees is to enhance the already-existing transfer functions within higher education institutions. Statewide transfer policies are being given greater emphasis as states are establishing bold attainment outcomes in the next few decades. For many states, these outcomes would not be met without strengthening transfer, which requires the creation of policies that allows graduates of once-terminal applied associate degree programs a pathway to the baccalaureate degree.

Finally, a factor that influenced the consideration of applied baccalaureate at the community college level is the capacity of traditional baccalaureate-granting institutions to meet the demand for baccalaureate degrees, which is related to the factor of improving transfer policies. As more students desire transfer options from all associate degree programs, some four-year

institutions are hard-pressed to meet increasing enrollment demands, particularly with the recent recession, which has led to increased postsecondary enrollment at all levels as well as statewide budget cuts. This phenomenon can be seen in several high-profile states like Florida, where capacity issues led to the development and implementation of the community college baccalaureate degree, including an applied baccalaureate degree at community colleges.

Other Phase 1 Publications

Three ancillary publications were produced using and analyzing data from the first phase of research. The first, published in summer 2009 in *New Directions for Community Colleges*, examines how a renewed focus on baccalaureate attainment, particularly among adult students, has redefined applied associate degrees and community college missions (Townsend, 2009). Because applied associate degrees can no longer be considered terminal, community colleges have found a new avenue for facilitating transfer among students receiving technical degrees. Another change noted by Townsend (2009) is that applied baccalaureate degrees have changed the way educators think about upper- and lower-division coursework, including both general education courses and major-specific coursework. General education courses in applied baccalaureate programs are often taken during the final two years of the degree, rather than the first two years, and some programs consider applied associate coursework to consist of credits which can be applied to the degree's major. These issues among higher education as a result of applied baccalaureate degrees could affect the ways in which policymakers and stakeholders view community colleges and four-year institutions alike.

A second publication that emerged from first phase research analyzes the curricular development of applied baccalaureate programs through the lens of Stark and Lattuca (1997), which posits that curricular developments are affected by three types of factors: external, organizational, and internal (Townsend, Bragg, & Ruud, 2009). External factors influencing the development of applied baccalaureate degrees include state educational needs for a workforce with more advanced technical training, low production of baccalaureate-educated adults, and other state-level needs that could be met by innovative policies such as applied baccalaureate degrees. Organizational factors include institutional history, such as a longstanding dedication to educating active military and veterans, adults, and other populations, low enrollments, which encouraged the pursuit of new degree programs to increase the potential to serve more students, and institutional missions, which often lead higher education institutions closer to or further from applied baccalaureate degrees in order to maintain a commitment to already-stated goals. Internal factors include faculty and administrative pressures to serve the group of students with terminal associate degrees, and faculty perceptions of employer demands, that could either lead institutions to develop such degrees or decide not to pursue them, depending on these perceptions.

A third publication is an analysis of several states' development of applied baccalaureate degrees utilizing Kingdon's (1998) multiple streams model (Ruud, Bragg, & Townsend, 2010). In this article, we sought to understand what factors led to the development of or choice not to develop applied baccalaureate degrees as part of a larger state initiative. Kingdon's model argues that policy development relies on a set of ideal conditions (three "multiple streams") that facilitate and support the eventual policy implementation through a "window of opportunity" in which all three streams converge at a proper point in time. These three streams are: a problem, in which policy makers identify and agree upon some issue that needs to be addressed using new or extant policies; politics, in which stakeholders and major policy makers are capable of generating public and political support for addressing the identified problem; and policies, in which a certain policy is chosen to address the specific problem. One major conclusion drawn from this article is that applied baccalaureate degrees, when made as part of a larger, statewide policy effort, have been created during ideal times for each individual state, and that the explanation for those states that did not have applied baccalaureate degrees could simply be that the conditions have not emerged to support the program innovation. This conclusion also suggests that states may, at a later date, consider such degrees as current problems escalate or new problems arise, political pressures change, and particular policy solutions become more apparent.

PHASE TWO ACTIVITIES

After concluding our inventory of programs across the United States in summer 2008, we began more in-depth research of programs with well-established applied baccalaureate degrees to better understand the contexts of their creation and promising practices that contribute to their success. To that end, we planned site visits to six identified states, with the intention of interviewing state officials, institutional administrators, instructors, students, employers, and other stakeholders associated with each state's applied baccalaureate degrees. The six states selected are: Arizona, Florida, Kentucky, Oklahoma, Texas, and Washington. We have visited and collected data from all six states and are analyzing these data. We will be releasing the full case report in fall 2010.

Preliminary observations at this point suggest that the distinct differences between the three applied baccalaureate model types (career ladder, upside-down, and management-capstone) are not nearly as pronounced as prior literature suggests. Whereas some programs may emphasize management coursework as part of their marketing, the credits in actual business and management courses do not indicate such an emphasis. As a result, we see the applied baccalaureate models as an informal distinction for degree programs, one that may not necessarily represent the diversity in curricula that applied baccalaureates encompass. Such nuance in degree programs is reflective of their highly individualized nature; for most programs, the degree creation stemmed from local and regional needs, and with employer and

student feedback, many of these programs have been customized to fit a niche market, independent from our classifications.

The personalized nature of the degree programs is also an important preliminary observation. We continue to examine these applied baccalaureate programs using Lattuca and Stark's (2009) framework, and are beginning to understand the specific ways in which states and even single programs operate to fit highly specialized needs of wide-ranging constituencies. Some programs, for example, have online components that reach a national and sometimes an international market. The goal of our research is to identify similar characteristics between these programs and identify overarching themes that may lend themselves to the success of these degrees. Several stakeholders of these degrees have indicated that applied baccalaureate degrees, by design, are able to respond quickly to changes in workforce and statewide needs.

While applied baccalaureate degrees only comprise a small number of degrees awarded across the nation, they are a growing phenomenon and show signs of continued growth. Baccalaureate degrees result in a better-trained and more efficient workforce. However, more study is needed regarding whether applied baccalaureate-educated individuals within a state improve civic and economic outcomes and increase the United States' international competitiveness educationally and economically. ♦

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Applied Baccalaureate Policy in Six States

by Collin M. Ruud and Debra D. Bragg

This article details responses to questions OCCRL posed to representatives of all six states currently being studied as part of our second phase of applied baccalaureate research. Each state was given the same series of questions. I believe the responses highlight the unique ways in which these states have approached applied baccalaureate degrees and the specific reasons states and institutions have chosen to implement these degrees. The responses cannot be attributed to one particular individual, per our own standards of maintaining anonymity with our contacts at each of our states.

UPDATE: Tell us a little about the creation of applied baccalaureate degrees in your state. When were they created and why? How did the state go about implementing these degrees?

ARIZONA: In the mid 1990s, Arizona's universities were criticized for not meeting some of the state's workforce needs and legislation was being considered that would allow the community colleges to offer degrees focused primarily on "first responders." With the approval of the Arizona Board of Regents, the governing board for the state's public universities, Arizona State University developed the first BAS in the late 1990s in response. There were no mandates or financial support for this new degree. All three universities now offer BAS degrees.

FLORIDA: Florida has been 46th out of the 50 states in the production of bachelor degrees. In addition, the state had gradually evolved from agricultural and service-based services to technology, health care and other industries. In 1998-99, the State Board of Community Colleges and the Postsecondary Education Planning Commission (both of which no longer exist), and the Senate Education Committee identified access to baccalaureate degrees as a major issue in Florida and recognized community colleges as a potential option for addressing this need. In 2001, a bill placed into statute section(s.) 1007.33, Florida Statutes (F.S.), and three of the state's 28 community colleges were given authority to seek approval to offer site-based bachelor degree programs, requiring State Board of Education (State Board) approval. The requirements were further strengthened and codified in Statute in 2009. The Legislature has traditionally provided start-up funding for the baccalaureate programs. Currently, state financial support is a primary challenge, as the state's economic climate has experienced a drastic downturn, as is the case nationally as well.

KENTUCKY: In order to accommodate an increasing number of graduates of Applied Associate in Science Degree programs from the Kentucky Community and Technical College System,

the Kentucky Council on Postsecondary Education and the Statewide Transfer Committee developed Kentucky's Applied Associate Degree Transfer Policy in 2002 which guarantees that the general education courses taken as part of an AAS degree program will transfer and count toward the lower-division general education requirements at the public universities. To further encourage more students in applied technical programs to transfer to four year institutions, the Council created a policy that required all public universities to develop a completer degree program in 2004. Completer degree programs allow students with any associate degree to complete a bachelor's degree within approximately the normal hours required for a bachelor's degree at the public universities.

OKLAHOMA: Applied baccalaureate degrees have a varied history and were created individually by institutions that found some need within their service area over the past 20+ years. There was no pilot, statewide initiative, legislative mandate, or financial support made available to institutions from the state for any of these programs.

TEXAS: Applied baccalaureate programs have been a part of Texas higher education for over 30 years, particularly at four-year institutions. Applied baccalaureate degrees at the community colleges were first created by legislative mandate in 2003 as a pilot project. In 2007, the "pilot" designation was removed and three colleges were given full authorization to award up to five applied baccalaureate degrees each. Four-year institutions have utilized the degree in large part to address the completion of baccalaureate programs for adults with some college credit but no credential, and to address recommendations made by Texas' Higher Education Coordinating Board to encourage better articulation practices between community colleges and four year institutions. The number of applied baccalaureate degrees awarded has risen by over 58 percent since 1989.

WASHINGTON: The first applied bachelor's degree programs (with the BAS designation) were approved at Central Washington University in December 2004. The applied baccalaureates at the Community Colleges were first authorized in a bill passed in 2005 (HB 1794). In addition to implementing several strategies to improve access at branch campuses, the new law also authorized two pilot projects at the community and technical colleges. The first would allow up to four institutions to offer baccalaureate degree programs in an applied field, and the second would allow the community and technical colleges to contract with the regional universities, the branch campuses, and/or The Evergreen State College to offer degree programs on the community college campuses. BAS programs were authorized with startup funds and a year of planning money.

The analysis to support the development of applied bachelor's degrees was conducted by the community college system to respond to a need to better serve students who had completed technical associate degrees and wanted to continue on to further education.

UPDATE: What issues in the state are these degrees meant to address? How effective are these degrees in addressing these issues? Do any data support this?

ARIZONA: Increasingly these degrees are seen as not only a means to address Arizona's workforce needs but also as another avenue for individuals to obtain a baccalaureate degree. The numbers of students participating in the BAS programs is still relatively small, so to date this effort has not had a significant impact on Arizona's baccalaureate attainment.

The Arizona Board of Regents and the universities recently entered into an agreement with the Department of Economic Security to obtain some relevant employment data and income levels on graduates who stay in Arizona. Reports will be available in the near future to match employment with individuals who complete BAS degrees and to then assess their impact in the workforce.

FLORIDA: When the on-site baccalaureate legislation was first implemented for Florida's community colleges, the degrees that were most in demand were nursing, education, and technology (applied sciences), and the s. 1007,33, F.S. specified that colleges could propose those degree programs, meeting the specified criteria, and pending approval by the State Board. Florida's community colleges are "open access" and typically serve non-traditional students. The individuals tend to be older, are place-bound, have families to support, are working full time, and are economically unable to afford the higher cost of tuition at state universities or private postsecondary institutions. Florida has developed and maintains a sophisticated data reporting system, and the data show steady enrollment and completion rates in our bachelor degree programs since the first graduates were reported in 2003. As of March 2010, our colleges have been approved to offer over 100 bachelor degree programs, and over 40% of those programs are applied science programs, the majority of which articulate from Associate in Science and Associate in Applied Science degree programs. Now nearly half of our 28 colleges are approved to offer bachelor programs. Information from colleges indicates that the graduates are being hired, and some are being admitted to graduate-level programs.

KENTUCKY: To prepare an increasing number graduates of Applied Associate in Science Degree programs from the Kentucky Community and Technical College System to advance in a workforce that increasingly requires technical and professional-level competencies. There were over 2,800 baccalaureate completer degrees awarded from 1999-2006.

OKLAHOMA: Primarily, these are programs to build on the Associate in Applied Science programs found at our community colleges and technical branches. Typically, they have targeted students with proficiency in a technical area and provided them with managerial and administrative knowledge to continue to advance in their technical area; there are advanced technical courses involved but there are also general business courses usually included. We have not done any state research to answer the question regarding effectiveness of the programs.

TEXAS: The primary issue addressed by Texas' applied baccalaureate degrees is those students who have some college credits but no baccalaureate degree. These students are, by and large, adult students, as there are over 3 million adult students with some college credit but no baccalaureate. Since Texas is a large state, the provision of applied baccalaureate degrees at both institutional levels is meant to increase access to these degrees. Many of the degrees awarded by community colleges were AAS, so the applied baccalaureate option created a way to articulate these degrees into baccalaureate programs. In 2008, the most recent year for which data are available, a total of 1,376 applied baccalaureate degrees were awarded in Texas, the most of these degrees awarded in the state in one year.

WASHINGTON: The key issue was access to further education for students in technical occupations. In addition, it has been a response to changing training and/or accreditation requirements (interior design is a good example) and in some instances limited access to programs due to geography or other issues (Peninsula College may be a good example). It's too early to tell how well these programs are addressing the issues. Enrollments have been moderate to date. At the CTC's total enrollment is just under 200 head count and we have awarded about 35 degrees to date. Enrollment for some of the programs at the CWU programs has been rather weak although Information Technology and Administrative Management seems to be doing reasonably well.

UPDATE: What challenges does the state have in providing these degrees, if any? What does the future look like for these degrees?

ARIZONA: Quality: AAS degrees are prolific in the state; more than 300 programs are offered at the Maricopa Community College system alone. However, course content is designed by each community college, resulting in quite varied academic outcomes. The AAS degree, once complete, generally transfers as a block, so that even if it includes courses not otherwise transferable, those courses can be applied to the BAS degree, potentially disadvantaging some students who transfer to BAS degrees.

Participation: We still have not had the numbers of students enrolling that we had hoped. The degree has not been marketed aggressively. Some research universities still have mixed

feelings about the appropriateness of the degrees. On the other hand, efforts to expand options for students might prompt others to create similar programs. For example, ASU has joined the WICHE WUE program to allow students from other states to enroll in BAS programs, with California as a key market.

Future: The Arizona Board of Regents recently approved an exception to the transfer credit limit, developed by the three universities, to allow students who have completed an AAS to transfer up to 75 credits into the BAS program, up from the 64 maximum, provided that the additional credits come from general education courses, within certain parameters. The future of the BAS degree in Arizona is bright.

FLORIDA: Funding is currently the primary challenge for the state and for colleges. Burgeoning enrollments, largely due to eroding economic conditions and job losses, have reached “double-digit” percentage increases in many of our colleges, while funding has been flat or even decreasing. Even so, colleges are committed to continuing to provide maximum access. Colleges currently applying for baccalaureate degrees are required to provide information on how they would fund a new program if specific state funding would not be available. Collaboration with other postsecondary providers—state universities and regionally-accredited private colleges and universities—continues to be an issue, as the State Board is concerned with unnecessary duplication of programs, impact on other institutions, and careful planning of appropriate degree programs that will meet local, regional, and statewide needs. As a result, a requirement in the proposal application process is for colleges to provide evidence of discussions and collaboration between area postsecondary institutions for more strategic planning in developing programs.

The future for these degree programs is optimistic, with Florida codifying the baccalaureate application and approval process in Statute and State Board Rule. The Florida Department of Education has a highly structured data reporting system in place for programs in Florida colleges. The data demonstrate the steady rise of enrollments and completers of these programs. Stringent administrative timelines set in statute for the Division of Florida Colleges (DFC) during the baccalaureate application and approval process are challenging to DFC staff and to college staff, as the state continues to navigate the newly-revised structure. Applications are submitted on a rolling basis and can be received by DFC any time during the year. DFC staff provide technical assistance to colleges prior to, during, and after the application process, to ensure that all legislated criteria are met.

KENTUCKY: The biggest challenge in providing completer degrees at the public four year universities comes from the competition from proprietary colleges who offer 3+1 degree programs. These institutions will accept a larger portion of 200 level courses, up to 90 credit hours, in transfer for their degree requirements.

OKLAHOMA: Understanding and demand for these degrees is inconsistent around the state. As we expand the collaborations

among technology centers and colleges, we anticipate more AAS degree holders to be created; as there are more AAS degree holders, it is reasonable to expect these students will desire to advance their education and the applied baccalaureate will be the most appropriate and expedient means for attaining a higher degree.

TEXAS: In some respects, the long history of these degrees at the four-year level may be a disadvantage to the applied baccalaureate degree, since some of the institutional leaders who championed the degrees at their colleges and universities are no longer at their respective institutions. Additionally, faculty representing the more traditional academic areas are sometimes resistant towards these degrees, and some institutions are doing little to promote them. There has also been some resistance by some four-year institutions toward the creation of applied baccalaureate degree programs at the three community colleges approved to offer them. However, there has been a resurgence of four-year institutions adding applied baccalaureate degrees in the last several years, as many regional universities begin to find new ways to address adult completion needs. Several of the applied baccalaureate degree programs found at four-year institutions are now offered online, making them even more accessible to students.

WASHINGTON: These are still fairly new degree programs. Legislation passed this year that will allow for expansion of these offerings in additional community and technical colleges. There have been some questions raised recently about transfer of credit which we are working through established cross sector workgroups that address transfer issues. In addition, it appears there may be a recruiting challenge for several of these programs – they tend to serve niche markets and some have struggled to get the numbers of students they expected. It is a bit early to tell if this is a real problem or simply issues associated with a new program area and building credibility (we had similar issues of low enrollment in our branch campuses as they were establishing themselves).

UPDATE: Is the state going through or considering any sort of major restructuring in regards to higher education governance? If yes, how would this impact applied baccalaureate degrees?

ARIZONA: Yes, the state recently received a Lumina Foundation grant for \$1.5 million over four years. The goal of the grant is to “. . . graduate more students.” One of the key elements of the grant is to improve governance by, “[i]dentifying . . . more permanent solutions to coordination and governance of Arizona postsecondary education that will maximize: effective statewide strategic planning; advocacy and public awareness; funding and financial equity; coordination of programs; oversight of transfer and articulation; alignment of metrics; and focus on student-centeredness.” (K. Nicodemus – Projector Director of the Making Opportunities Affordable grant). The applied baccalaureate degree will contribute to the goal of increased

degree completion for students already in the pipeline, and may bring back to the higher education arena students who may not have otherwise considered a baccalaureate degree.

FLORIDA: In 2008, the Florida Legislature established the Florida College System Task Force and State College Pilot Project, charged with making recommendations for framing legislation that would clarify the authorization for Florida's community colleges to award baccalaureate degrees, and to further define the approval process. As a result, The Florida College System was created by redesigning community colleges as "Florida Colleges," and the Division of Community Colleges became the Division of Florida Colleges. This reaffirmed the FCS as a single system, locally governed by a Board of Trustees under statutory authority of the State Board. This system maintains the colleges' historic mission of providing associate degrees for transfer to four-year institutions and for workforce degrees and certificates; requires cost-effective delivery of bachelor degrees with substantial savings to students and the state; allows colleges with State Board approval and SACS Level II accreditation to use the term "state colleges;" and allows colleges' Boards of Trustees to request State Board approval for dropping the term "community" from a college's name irrespective of degrees it is authorized to offer. Since Grades K-12 and The Florida College System are under authority of the State Board of Education, and the state public universities are governed by the Florida Board of Governors, this structure results in other challenges, requiring extensive collaboration between the sectors in order to provide students with maximum access through articulation.

KENTUCKY: At this time Kentucky is not considering restructuring higher education governance.

OKLAHOMA: There are no restructuring plans in Oklahoma at present.

TEXAS: Texas has a strategic plan for higher education, called "Closing the Gap." This plan outlines high target rates for baccalaureate completion of various demographic groups. To meet these bold targets, Texas higher education institutions strive to meet the needs of nontraditional, especially

adult, students. In addition to the strategic plan, Texas is in the midst of a study of the community college baccalaureate programs, led by the Texas Higher Education Coordinating Board. Results of the study are anticipated in summer 2010 and will be presented to the Texas legislature in fall 2010. They are expected to provide important information on the state's future decisions regarding both applied baccalaureate and community college baccalaureate degree programs.

The Coordinating Board has also recently changed the process by which four-year institutions are authorized to offer new degrees and majors. Baccalaureate and master's programs at these institutions are now automatically approved, pending no public objection, if the programs meet certain budgetary and programmatic requirements. This process appears to allow institutions to be more responsive in meeting student needs, and several applied baccalaureate degrees have either been approved or are being planned using this process.

WASHINGTON: No, but as mentioned earlier, legislation passed that removed BAS programs at the CTC's from pilot status and allows for growth through the system.

UPDATE: Is there anything you wish to add?

FLORIDA: As increasing longitudinal data are being collected on bachelor degree program enrollees and completers, we are looking forward to discovering more about the success of our graduates as they continue to enter satisfying careers and/or move on to further postsecondary education. ♦

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Development of Washington’s Community and Technical College Applied Baccalaureate Degrees

by Loretta Seppanen, Washington State Board for Community and Technical Colleges

INTRODUCTION

Several Washington state community and technical colleges (CTCs) have been offering upper division coursework leading to a bachelor’s degree since fall 2007. The niche for these degrees is focused on applied baccalaureate degrees only, and is complementary to the traditional roles colleges have played related to baccalaureate attainment. Each degree program enrolls a small number of students with about 35 to 40 annual upper division FTEs per program and an estimated annual 15 to 25 graduates per program.

The push for this niche role for CTCs in awarding applied baccalaureate degrees started in 2001, ahead of the initial authorizing legislation (HB 1974, 2005). That push was in response to two issues – a view that more pathways for transfer were needed for applied associate degree graduates and the evidence of a need for more upper division capacity in the state. Early in these discussions the colleges sought and gained public university support for this new baccalaureate role.

By fall 2009, 57 students have graduated with bachelor’s degrees. Currently, 259 students are enrolled in the applied bachelor’s programs at seven CTCs. Partly because several programs are in health-related fields, women are enrolled at an even higher than traditional rate (70 percent female). The median age of students was 33. A slight majority (57 percent) enrolled full-time despite the fact that most also work (64 percent).

This article outlines key factors leading to the award of applied baccalaureate degrees in Washington State.

WHAT MOTIVATED WASHINGTON TO CONSIDER THE COMMUNITY AND TECHNICAL COLLEGE BACHELOR’S DEGREE OPTION?

In early 2001, community and technical college leaders in Washington agreed that action was needed to increase the pathways to transfer for those with applied (workforce) associate degrees. The push to increase transfer options for workforce associate degree graduates stemmed in part from changes in the job market. Some employers told college leaders they wanted bachelor’s options for their would-be managers in their technician ranks. Furthermore, employers wanted a smooth path for their employees without the need to “start over” in an effort to meet the course requirements for a traditional bachelor’s in business. At the same time, some employers indicated a need for even more technical training. While a certificate or associate degree training had satisfied job requirements in the past, employers needed some staff with more advanced technical skills, not available in existing bachelor’s programs (diagnostic imaging, for example).

Despite this employer demand, Washington had limited pathways for students with an applied associate degree to earn a baccalaureate degree. Some four-year institutions had offered an “upside down” degree or “professional studies” degree that assured broad liberal arts coursework topping off the workforce-focused applied associate degree. Similarly “RN to BSN” pathways allowing registered nurses with the associate degree to complete a Bachelor of Science in Nursing have existed for some time. More recently, at the request of the community and technical colleges, several baccalaureate institutions added the Bachelor of Applied Science (BAS) option to serve graduates from selected applied associate degree programs (See Table I).

Table I
Bachelor of Applied Science-Type (BAS-Type) Degrees Offered in Washington by Baccalaureate Institutions

Public Baccalaureate	Independent and For-Profit
<p>Central Washington University – BAS in Information Technology and Administrative Management, BAS in Food Service Management</p> <p>Eastern Washington University – BS Applied Technology, BS Dental Hygiene, BA Children’s Studies, ECE option</p> <p>Washington State University – RN to BSN; BA Interior Design; BA Human Development</p> <p>University of Washington, Tacoma & University of Washington Bothell – RN to BSN</p>	<p>Pacific Lutheran University – LPN and RN to BSN</p> <p>University of Phoenix – BS Management</p> <p>DeVry University – BS Technical Management</p> <p>City University – BS Business Administration</p>
<p>The Evergreen State College – Upside Down Degree</p>	<p>Seattle Pacific University – Professional Studies</p> <p>Whitworth University – Liberal Studies</p>

Even after the implementation of BAS and completion degrees at four-year institutions, the number of BAS-type pathways and their location in the state was limited, resulting in low transfer rates for associate of applied science graduates – about 10 percent or 700 transfers each year. But evidence from other states with more BAS pathways suggested that if more upper division BAS capacity was created, up to 30 percent of these graduates would complete a bachelor's degree – a difference of 1,400 more transfers (SBCTC, 2005). In early 2004, the CTC system undertook a feasibility study examining the possibility of meeting part of the need for more BAS options within the CTCs.

Simultaneously, the higher education community identified the need to expand upper division capacity in general. In fall 2004 a study jointly conducted by public universities and staff of the State Board for Community and Technical Colleges (SBCTC) concluded that most new enrollment growth was needed at the upper division level and that needs varied by region.

Thus the higher education community developed a multi-pronged set of strategies for increasing upper division capacity. Rather than treating the authorization of applied bachelor's degrees as a separate legislative issue, it was placed in a larger context calling for expanding spaces at existing public institutions, growing the number of university centers on college campuses, and authorizing community and technical colleges to offer applied baccalaureate degrees.

The legislation authorizing baccalaureate degrees at community and technical colleges (HB 1794 passed in 2005) defined applied bachelor's degrees as providing a pathway to the bachelor's for graduates of applied associate degree programs by combining theory and applied knowledge/skills. In practice the degrees include about two-thirds of a year's credits in general

liberal arts beyond the general education component in the applied associate degree. The remaining upper division credits are either management related or additional advanced work in the chosen field of study or a combination of both.

HOW BROAD IS THE BACCALAUREATE ROLE OF WASHINGTON COMMUNITY AND TECHNICAL COLLEGES?

The niche for community and technical college baccalaureate degrees in Washington is small, focused on applied baccalaureate degrees only. This role is complementary to the traditional transfer role. The 34 CTCs prepare about 18,000 students a year to transfer to upper division programs and 25 CTCs host universities on their campuses, either in purpose-built University Center facilities or in regular college classrooms and offices. A growing share of baccalaureate graduates (seven percent in 2006) complete degrees on the CTC campuses. Most of the colleges that offer applied bachelor's degrees also provide the opportunity for place-bound students to complete other bachelor's degrees by hosting universities on their campuses.

Washington state has long had the benefit of clear statewide transfer pathways that assure a substantial number of university admissions are CTC transfers and that at least four in ten bachelor's graduates have completed a significant portion of their degree at a community or technical college (HECB, 2009)¹.

As is typical in this state when exploring an educational approach for the first time, the first four colleges were authored as pilot projects. They quickly proved their value leading to approval two years later for three additional pilots (see Table II).

¹Most students (about 72 percent to public institutions) transfer with the associate degree because statewide agreements assure junior status (with most general education requirements treated as met) for students with a degree admitted as transfers.

Table II
Applied Baccalaureate Degrees at Washington Community and Technical Colleges as of January 2010

Bellevue College	BAS – Radiation and Imaging Science BAS (Applied Arts) - Interior Design	http://bellevuecollege.edu/programs/degrees/bachelor/bas/raim/ http://bellevuecollege.edu/artshum/interiordesign/baa_program.html
Columbia Basin Community College	BAS – Applied Management	http://www.columbiabasin.edu/home/index.asp?page=2311
Lake Washington Technical College	BT – Applied Design	http://lwtechost.ctc.edu/programs2/btad/
Olympic College	BSN	http://www.olympic.edu/Students/DegreesCertificates/BSCI-NIA.htm
Peninsula College	BAS – Applied Management	http://faculty.pc.ctc.edu/bas/
Seattle Central Community College	BAS – Applied Behavioral Science	http://seattlecentral.edu/BAS/
South Seattle Community College	BAS – Hospitality Management	http://www.southseattle.edu/programs/bas/require.html

A recent examination of the higher education system, called System Design, led by the Higher Education Coordinating Board (HECB) concluded that still more applied baccalaureate degrees are needed. That analysis concluded that both universities and CTCs should increase BAS offerings. The System Design recommendations, including growth of the CTC bachelor's, are currently under final consideration by the Washington legislature (SB 6355). If passed and signed by the Governor, the pilot status would be removed from statute as would the limitations on the number of colleges that can offer such programs. The bill specifies that CTCs may apply to the State Board for Community and Technical Colleges (SBCTC) to develop and offer applied baccalaureate degree programs and may enroll students in upper division courses after approval by the SBCTC and the HECB.

WHO DECIDES WHICH COLLEGES CAN AWARD BACHELOR'S DEGREES?

The CTC applied baccalaureate authorizing legislation specified a degree approval process consistent with the already existing authority of the SBCTC and the HECB. The SBCTC's approval authority for all workforce degrees and certificates was extended to these applied degrees, which are considered part of the workforce mission. The HECB's approval authority extends to all public baccalaureate degrees.

The 2005 legislation required SBCTC to "convene a task force that includes representatives of both the community and technical colleges to develop objective selection criteria" for approval of these degrees. That task force – representing college's instruction, student services and administrative areas – started by creating a set of CTC applied baccalaureate principles:

- The programs are to serve local students who are not otherwise being served.
- Programs are regarded as an extension of workforce mission – response to increasing skill requirement of employers.
- Colleges selected to offer these degrees must have the capacity to develop and sustain new programs.
- CTCs offering some applied baccalaureate degrees will remain predominately lower division institutions.
- Colleges are to maintain the "open door" philosophy as they add bachelor's programs.

Table III provides the criteria and requirements set by the task force. Together the principles and criteria assure well planned degrees. They also direct colleges to consider degree pathways only when employer demand is large enough to employ 15 to 25 graduates per year and where the workforce faculty is already among the strongest and thus poised to develop rigorous upper division course work. These criteria continue to be used in reviewing additional applied baccalaureate proposals (see Table III on page 15).

HOW IS THE FUNDING LEVEL FOR PROGRAMS DETERMINED?

Washington colleges are state funded and have no local taxing authority. Currently, 73 percent of the funding for workforce, basic skills and lower division transfer courses comes from the state legislature and 27 percent from student tuition. Our system uses a carry forward funding approach with most new funding tied to a forecast for increased FTEs at a flat rate per FTEs irrespective of area of study. A small portion of projected new FTEs are funded at premium as a means of focusing growth in areas of special interest to the state and in response to evidence of higher than normal costs in those special areas.

The task force proposed that the level of funding per FTEs, and subsequently the tuition level and thus the ratio of tuition to state funding, be based on the concepts of no price-based competition with public comprehensive universities². The task force also assumed that real costs at the CTCs likely would mirror the upper division costs of comprehensive universities. Thus students are charged the same tuition in the upper division applied bachelors program as they would be charged taking a similar upper division course at the closest comprehensive university³. Colleges are reimbursed for a set number of upper division FTEs at the same rate used to reimburse comprehensive universities.

This higher funding rate for upper division course work compared to most other CTC FTEs supports the higher cost of smaller classes, additional library resources and instruction, faculty time to support more independent student work and additional release time for faculty for industry connections and/or research. Faculty members are paid on the same salary schedule as other faculty at the campus and maintain the same workload. In practice the faculty members are, for the most part, lower division faculty. Five out of six faculty members who teach upper division courses also teach lower division courses as well. Four out of six teach just one upper division course a year. Many current community and technical college faculty hold the terminal degree in their field and that is true also in the applied baccalaureate programs with about half the faculty holding the Ph.D. or Ed.D.

Based on advice from other states, Washington included a year of startup funding prior to the first teaching year. Each pilot college received approximately \$260,000 to hire new faculty, to fund curricular planning and to enhance library and/or laboratory resources. While not funded, pilot colleges indicated that

² Regional state universities: Central Washington University, Eastern Washington University, The Evergreen State College and Western Washington University.

³ In 2008-09 the tuition and fee rate for two classes (10 quarter credits) per quarter for a traditional nine month academic year of lower division course work at the pilot colleges was \$2,628 and the tuition rate for 10 credits per quarter for the year at the upper division was \$5,190.

Table III Summarized Criteria and Standards for Washington CTC Applied Baccalaureate Degrees		
Principle	Criteria	Standards
Service to Place-bound Students	1.A Program fills a gap in options available for students because it is not offered by a public four-year institution of higher education in the college's geographic area.	1.A Evidence that no public baccalaureate institution offers degrees serving the place-bound graduates of relevant applied associate degree programs in the college's geographic area.
	1.B Demonstrate demand for the proposed program from a sufficient number of students within its service area to make the program cost-effective and feasible to operate.	1.B Evidence that the number of students graduating from relevant applied associate degree programs in the catchment area result in sufficient students going on for the BAS each year to match the planned junior year FTE request.
	1.C If applicable, has a plan for program articulation with nearby colleges.	1.C Indicate why articulation is or is not applicable. If applicable, describe articulation plans and the number of student expected from nearby colleges.
Part of Workforce Mission	2.A The college can demonstrate that employers demand the level of technical training proposed within the program, making it cost-effective for students to seek the degree.	2.A Document that: <ul style="list-style-type: none"> • Local employer demand for bachelor's level workers exceeds the current local supply of relevant bachelor's degrees awarded by public institutions serving the area, or • State level employer demand for bachelor's level workers exceeds statewide public baccalaureate supply.
	2.B Has a plan for development of the curriculum that represents a level of rigor and knowledge above the level of the related applied associate degree.	2.B Describe technical course work for the BAS and the general education component of the bachelor's degree. Identify the general education expected from the applied associate level, the gaps in general education by area (humanities, social science, etc.) addressed at the junior and senior level in the BAS.
Capacity & Sustainability	3.A Demonstrates the capacity to make a long-term commitment of resources to build and sustain a high quality program.	3.A Provide a financial plan for the first years in which courses will be offered with projection revenue streams including revenue from employer contributions and any anticipated redistribution from existing funding; and projection of expenditures to be charged to the program. Description of the adequacy of current facilities, equipment and other instructional resources required by the bachelor's program. Document the level of institutional financial stability that demonstrates the capacity to undertake and sustain new instructional initiatives.
	3.B Has analyzed the faculty/staff needed, the education and professional experience qualification of faculty members relative to teaching assignments and anticipated sources of qualified faculty and staff.	3.B Describe the number and characteristics of staff and faculty by year. Include faculty needed to cover the technical course work, general education courses and electives. For faculty, identify the highest level of education needed and describe other experience expectations such as recent work experience in the field (minimum of two years at a job appropriate for those with at least the bachelor's degree).
	3.C Has or can readily engage faculty appropriately qualified to develop and deliver a high quality curriculum at the baccalaureate level.	3.C Document that by the time students take their first classes the college will be able to hire new faculty or reassign current faculty meeting the qualifications described above and to do so within the funding constraints.
Maintain 2-Year Focus	4.A Has an adequate and appropriate student services plan.	4.A Describe the services that will be needed by the students admitted to the applied bachelor's degree program. Describe plans for providing those services. Include a description of the following items in the plan: <ul style="list-style-type: none"> • Provision of financial aid services for students admitted to the program. • Effective academic advising that engages disciplinary expertise. • Retention strategies to enhance success of students in the program. • How to assist program graduates with placement.
	4.B Has a plan for the assessment of student achievement and program assessment at the bachelor's level built upon a track record of effective assessment of the associate degrees.	4.B Describe methods for assessment of student achievement and program assessment for the related applied associate degrees and provide examples of how those assessments have been used to improve the program. Describe which parts of that assessment will be applied at the bachelor's levels and the plans for other assessments at the bachelor's level.
Maintain the Open Door Philosophy	5.A. Has a plan for selective admission processes, if used for the bachelor's program, consistent with an open door institution.	5.A Describe the program selection and admissions process (how this process relates to and supports the open door.) Also, describe efforts to assure that the CTC bachelor's degree program serves as diverse a population as enrolled in the relevant associate degree programs in terms of aspects of diversity important to the college community.

they could have used an additional \$50,000 each in the first teaching year to continue curriculum development. For the first teaching year, pilot colleges were funded for 17 to 22 FTES per program for junior year classes. Subsequently, each program received ongoing funding for 35 to 40 annual FTES per program (for the junior and senior year).

HOW MUCH LEAD TIME IS NEEDED PRIOR TO GRADUATING THE FIRST BACHELOR'S STUDENTS?

Colleges in Washington awarded their first bachelor's degree four years subsequent to legislative authority to do so. The year to year work proceeded as follows:

- **Two years prior to course offerings:** Proposal review by SBCTC and HECB, accreditation approval before advertising for admission.
- **One year prior to course offerings:** Develop upper division courses, hire faculty, update library, select first students.
- **First year course offerings:** Teach courses for juniors and select new students for next year.
- **Graduating year:** Bring in second set of new students, graduate some second year students who had attended as full-time students.

LESSONS LEARNED IN IMPLEMENTING APPLIED BACCALAUREATE DEGREES IN THE CTCs IN WASHINGTON

Several factors moved Washington to first authorize pilot applied baccalaureate degrees in the CTC and later to agree that more CTC applied baccalaureate degrees are needed. Forward motion and broader support occurred as a result of the decision to place the question of this new role for CTCs in a larger

context. The recent legislative action to remove the pilot status similarly was accomplished by placing the issue in a larger context examining decisions about when, where, and how baccalaureate growth should be accomplished.

Throughout this work, CTCs have worked their degree proposals individually with partner universities, and the staff at SBCTC have worked with universities seeking support for this new CTC role. The principles and criteria established by the task force have assured well planned degree proposals that respond to employer needs, do not compete with public university programs and build upon existing CTC faculty member strengths. ◆

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Employer and Graduate Perspectives of the Community College Applied Baccalaureate: Meeting the College Mission

by Malcolm Grothe, South Seattle Community College

In September 2009, I completed and defended my doctoral dissertation at Oregon State University. This dissertation culminated from a study I conducted in 2008 and 2009, the purpose of which was to better understand the perceptions of employers and graduates regarding the applied baccalaureate degree when conferred by community colleges. Local business representative and prospective students of applied community college baccalaureate degree (ACCBD) programs were interviewed to ascertain their support or lack thereof for the new degree. Grounded theory was used to develop a step-by-step process to collect, sort, evaluate, and analyze the data used in this study. Two research questions were used to guide my study:

1. How do employers view the applied baccalaureate when conferred by community colleges? and,
2. How do graduates who have earned a community college baccalaureate degree view the degree?

Three colleges located in different regions of North America were selected and 18 ACCBD graduates and seven employers were interviewed. The data collection resulted in seven themes (five from graduates and two from employers) and a proposed theory.

THEMES

Five themes emerged from ACCBD graduate interviews. They suggested that ACCBD programs:

1. Do not present barriers to attaining a bachelor's degree that prevent graduates from attending a university;
2. Accommodate students' needs better than that of a university in three important areas: smaller classes, appropriate faculty, and industry connection or relevance;
3. Prepare students for additional education, including master's programs and law school;
4. Utilize alternative delivery modes that meet, and in some cases exceed students' expectations; and
5. Prepare students for their chosen fields and positions in the workforce.

Two major themes emerged from employer interviews, and they are that the ACCBD program:

1. Meets, and in some cases, exceeds employers' expectations for worksite preparedness; and
2. Is a community builder.

Existing literature supports several of these findings.

In support of Theme 1, in some cases, ACCBD programs evolved to create access for nontraditional students who were unable to attend a university. Bragg, Townsend, and Ruud (2008), in discussing community college applied associate (technical) degree programs, explained that graduates have a difficult time finding higher education opportunities, "because many colleges and universities do not accommodate the complexity of their lives" (p. 3). Floyd and Walker (2009) also stressed the need for ACCBD programs, stating, "College programs need to be packaged and delivered in convenient formats to meet the needs of a diverse American workforce, ranging from 18-year-olds to aging Baby Boomers" (p. 92).

In regards to Theme 2, which addresses the accommodations made by ACCBD programs, Townsend, Bragg, and Ruud (2008) noted that little data speak to how these programs run, stating, "We need more detailed information about how these programs work, what the key components are, and what are the characteristics of the learner they serve" (p. 14). In my study, graduates identified a number of accommodations provided by the ACCBD program that made it possible for many of them to attain their degree. These accommodations included smaller class sizes, lower cost, more accessible faculty, and better industry connection. My study may, in fact, offer some of the first data to respond to Townsend et al.'s assertion about the lack of specificity of program features and learners because the graduates interviewed based their views on direct experience with the accommodations made by the community college to meet their needs as nontraditional students.

With Theme 3, most of the graduates felt that the ACCBD had prepared them for post-baccalaureate education. Six of the 18 graduates reported that they had been accepted into graduate school, while several others were considering applying to graduate school. Importantly, one graduate had completed law school and had passed the bar exam. Although not the case in my study, some authors have questioned whether the ACCBD is perhaps substandard and may not be accepted for admission to graduate programs (Townsend, 2005). One such criticism is mentioned by Walker and Floyd (2005), who wrote, "given the difference between applied workforce baccalaureate and traditional baccalaureate degrees, an important question is whether the applied degrees would be recognized by universities for admission to graduate programs" (p. 101). Of note, one of the sites that I visited had conducted its own survey of several major universities regarding a specific ACCBD program with the result that most would accept such a degree for admission to a master's program.

In regards to alternative delivery, Theme 4, all three of the ACCBD sites involved in my study offered some form of alternative delivery designed for nontraditional students. These alternative delivery methods included night classes, online and online/hybrid classes (i.e., a combination of classroom and online), interactive two-way television, compressed schedules and summer classes, flexible schedules, courses offered at work-sites, and various combinations of the above. Graduates viewed these methods of delivery as meeting their needs, and in some cases, felt the alternative delivery method exceeded their expectations.

Although I was unable to find literature regarding graduates' or employers' views on the effective preparation for a job (Themes 5 and 6, respectively) that their ACCBD provided, I did, nonetheless, find literature that identified closely related phenomena. Floyd (2005) proffered that one of the primary reasons community college leaders are interested in adding the ACCBD to their existing programs is to provide better access for nontraditional students to attain bachelor's degrees which provide higher quality jobs with more job security. To that end, two Canadian provinces, Alberta and Ontario, have used the ACCBD programs to meet industry needs instead of expanding access to typical traditional university degrees (Skolnik, 2005). In the employers' views, having the ACCBD in their community is a clear advantage. Most importantly, the employers perceive the ACCBD program as a community builder in that it tends to keep people in the community and provides industry with local talent to hire.

I found additional research attesting to the ACCBD programs as community builders, to further support Theme 7; however, my research on the community-building aspect of ACCBD programs is among the first to reveal this finding from the perspective of employers.

Although both graduate and employer views of the ACCBD are predominantly positive in my study, some issues are evident in the data. Some employers had very little knowledge of the ACCBD programs, and instead of responding to the program's attributes, described the attributes of their employees. One graduate had concerns about course sequencing, which limited his/her ability to 'fast track' the program by taking additional classes each semester. Additionally, one ACCBD graduate was not accepted into an advanced degree program and believed the university based its decision on the absence of a traditional bachelor's degree. In a similar vein, at one site, both graduates and employers alike showed concern for the lack of prestige that the ACCBD college holds in the community.

PROPOSED THEORY

It is the seventh theme, community building, that serves as the basis of my proposed theory. This theory, which is grounded in these findings, has five identifiable stages (see Figure 1 on page 19).

Stage 1. Local nontraditional graduates from two-year technical programs desire additional educational credentials to improve their work status. Graduates from this study who were mostly nontraditional students with two-year technical degrees reported four primary areas in which the ACCBD helped them with their current jobs: (a) prepared them for their first professional job, (b) helped them to secure a better job, (c) led to an upgrade in their current job, and (d) updated and upgraded their skills for their current job. These results reveal a demand to improve work skills from a nontraditional student population with two-year technical degrees.

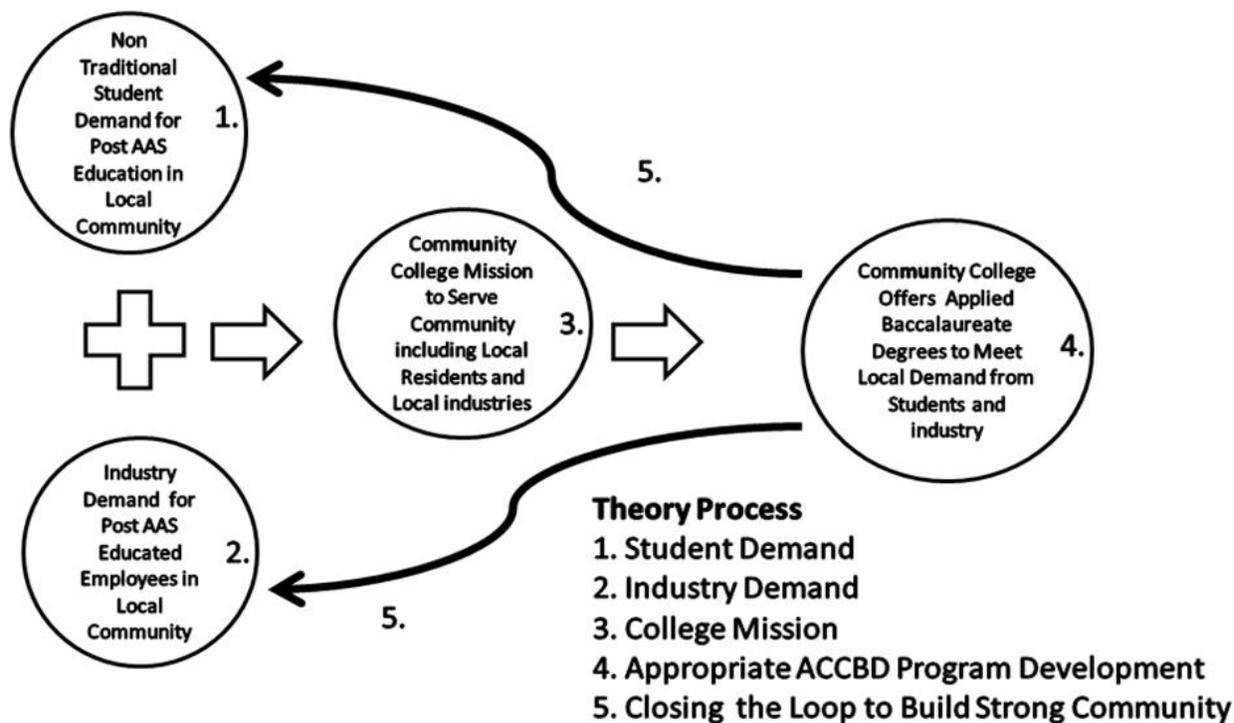
Stage 2. Local businesses want to hire appropriately educated local residents, and in some cases, like to have their current employees' skills upgraded. In my study, Theme 6 described employers' perceptions that graduates met and exceeded their expectations with regard to job skills. Also, Theme 5 showed ACCBD graduates are often hoping to either secure a better job or improve their skills within their current company. This finding suggests employers may already be using the ACCBD programs to hire new employees and upgrade current employees.

Stage 3. The mission statements of most community colleges include addressing identified local and regional gaps in education. As discussed in Theme 1, ACCBD programs are evolving in many cases to create access for nontraditional students who are unable to attend a university. ACCBD graduates felt that attending a university, rather than a community college, would not meet their present needs for work, family, and school.

Stage 4. The community college implements appropriate ACCBD programs to meet the demand. As noted in Theme 2, ACCBD graduates identified a number of accommodations provided by their programs that made it possible for many of them to attain their baccalaureate degree. These accommodations include smaller class sizes, lower cost, more accessible faculty, and better industry connection.

Stage 5. Local businesses are enhanced by hiring or promoting ACCBD graduates, and offering these programs within the community greatly reduces the risk of losing capable and well-trained graduates who might otherwise leave the community to be trained elsewhere. This finding supports the community in which these graduates live and work. The employers in my study concurred that having the ACCBD in their community is an advantage. They perceived the ACCBD as a community builder in that it tends to keep people in the community, and it provides local industry with a better educated workforce to hire.

ACCBD as a Community Builder Theory Process



CONCLUSION

With the current worldwide economic downturn of 2008-2009, policymakers are looking for innovative ways to improve the economic conditions in North America. ACCBD programs may present a response to this critical need for innovation and new solutions as it provides community colleges with an additional tool to help revive local communities while, at the same time, meeting the needs of the workforce and the population by offering post-associate's technical education.

The community-building component of the ACCBD programs is an important finding. By offering these programs, community colleges seem to be fulfilling their mission statement by doing what they do best—serving the local community. In the last several years, the number of states offering the ACCBD has tripled from five to 15. Based on that statistic, I believe in 10 to 15 years, these programs will spread to at least half of the states. In fact, if not a definite trend by then, I believe those communities that have yet to establish these programs will, in essence, be missing an opportunity to serve and enrich their communities. Although not all educators agree that the next

step for community colleges is to add the ACCBD program, it appears to me that as employees need higher levels of education to be viable employees in today's economy, it seems logical that community colleges will increase the level of education offered and fill this need by offering ACCBD programs.

My study identified common themes from all three schools that begin to validate the effectiveness of the ACCBD programs. It has shown that the ACCBD program has exceeded the expectations of both the employers and graduates who were interviewed for this study. I would encourage state and local policymakers, accreditation agencies, and other stakeholders to consider offering ACCBD programs as a potential option especially when universities are unable or unwilling to meet the demand. This study has identified research that will help education leaders evaluate the appropriateness of the ACCBD for their college. Further, they may wish to consider the themes and theory from my study to identify models that may help them investigate these new degree programs. ♦

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