The Applied Baccalaureate:
What We Know, What We Learned, and What We Need to Know

A Summary of Meeting Deliberations at the Convening on the Applied Baccalaureate sponsored by Lumina Foundation for Education on September 1–2, 2010

Collin M. Ruud
Debra D. Bragg

Office of Community College Research and Leadership
University of Illinois at Urbana-Champaign

May 2011
The Office of Community College Research and Leadership (OCCRL) is located in the Department of Education Policy, Organization and Leadership in the College of Education at the University of Illinois at Urbana-Champaign. The mission of the OCCRL is to use research and evaluation methods to improve policies, programs, and practices to enhance community college education and the transition to college for diverse learners in Illinois and the United States. This publication was prepared pursuant to a grant from Lumina Foundation for Education (Indianapolis, Indiana). The authors acknowledge that the contents of this report do not necessarily represent the positions or policies of Lumina Foundation for Education or their employer, the University of Illinois, and should not be assumed as an endorsement by these organizations.

Suggested Citation: Ruud, C. M., & Bragg, D. D. (2011). The applied baccalaureate: What we know, what we learned, and what we need to know. Champaign, IL: Office of Community College Research and Leadership, University of Illinois at Urbana-Champaign.

Acknowledgments: We acknowledge the many leaders in higher education who provided such valuable information on and insights into the applied baccalaureate (AB) degree at the Convening,” sponsored by Lumina Foundation for Education. We are grateful to have had the opportunity to learn about AB degrees from diverse and thoughtful perspectives. We also thank our colleagues at the University of Illinois and our families for their support while we were pursuing this project. Finally, we recognize the generous support that Lumina provided to make this meeting possible. We are especially grateful to Lumina’s Holly Zanville, Nancy Eaton, and Haley Glover and their associates, who helped us with planning and implementation. The meeting on the AB was the first official Convening conducted by Lumina. Despite our apprehension, these professionals made it easy for us to succeed, and we are thankful to them for providing such outstanding support.
Introduction

With the economy slowly rebounding from recession, many adults are looking for ways to enter, reenter, or advance in the labor market. Federal, state, and local leaders are responding with a wide range of education and training options to boost employment opportunities, with an eye toward increasing employment for adults who require technical and semiprofessional competencies. Employment in these midskilled jobs is expected to grow and is critical to the nation’s economic recovery (Carnevale, Smith, & Strohl, 2010; Wheary & Orozco, 2010). Higher education can contribute to the preparation of these workers by offering programs that emphasize competencies and credentials in general and technical education. Community colleges, in particular, are seen as pivotal to revitalizing the educational pipeline to midskilled employment, given their commitment to providing access to large segments of the US population and their rich history of preparing graduates for employment (Cohen & Brawer, 2008).

Since the beginning of Barack Obama’s presidency, he has urged the nation’s citizens to make college completion a top priority. To this end, he has rolled out the American Graduation Initiative and advanced the goal that 5 million more Americans than the current level will earn postsecondary credentials (certificates or degrees). The President's vision of bolstering the role of community colleges in college degree production is recognized as both complex and controversial (Bailey, 2011; Hauptman, 2011). The White House Summit on Community Colleges (http://www.whitehouse.gov/communitycollege) held October 5, 2010, brought together federal public policy makers and higher education leaders from across the county to consider the potential for community colleges to play an even more instrumental role in the nation’s educational enterprise and in preparing citizens for employment, including increasing degree completion in the United States.

Furthermore, as policy makers seek to couple the higher education system more closely to workforce development, an emerging credential that is increasing in importance is the applied baccalaureate (AB) degree. Although not entirely new, AB degrees have grown substantially over the past few decades. Growth in these degrees is attributable to the heightened need for postsecondary education among adults and to changes in the labor market that make college a prerequisite for entering or advancing in employment (National Center for Education Statistics [NCES], 2009). The need to enhance the transferability of course credits toward a baccalaureate degree is also recognized as necessary for increasing baccalaureate degree attainment, with AB degrees creating transfer options for students with applied associate course credits or credentials. The AB degrees may help students, particularly adults, feel fulfilled and may help states and institutions respond to the national dialogue on college degree attainment.
Although research on AB degrees is relatively lacking, research supported by Lumina Foundation for Education since 2007 (Townsend, Bragg, & Ruud, 2008) has indicated that ABs provide transfer opportunities for students who graduate with technical associate degrees, who heretofore have had limited opportunities to pursue the baccalaureate without losing a substantial number of credits. Often, these students are affiliated with groups that are the most underserved by higher education, such as nontraditional-age adult learners, full-time workers, minorities, first-generation college students, and low-income individuals. Further research is necessary to understand the extent to which these degrees are adding to college degree attainment and representing a viable career path to greater workforce and economic outcomes. As researchers, we have been investigating the phenomenon of AB degrees since 2007, and we feel that a national dialogue regarding the feasibility of these degrees is necessary.

### What We Know

The evolution of AB degrees has been influenced by an increased emphasis on workforce development, baccalaureate degree attainment, and transfer on the state and institutional levels. Beginning as primarily programmatic decisions made by a few institutions, over time AB degree program decisions have involved more institutions, and eventually states. These degrees were first offered in the late 1970s, but they represented institutional efforts, rather than state efforts, to address specific institutional needs for baccalaureate degrees in highly specialized areas. Although the degree was offered at a few more institutions nationally in the 1980s, the 1990s marked a time when more substantial, state-level growth occurred. In the 1990s, seven states had an associate degree-granting institution that gained the authority to award baccalaureate degrees. Several of these institutions would later become 4-year colleges or universities.

Led by Barbara Townsend until her untimely death on June 11, 2009, our research team surveyed education agencies in all 50 states and found that as of 2008, AB degrees were offered in at least one public 4-year institution in 39 states. Of these 39 states, 10 additionally had at least one public institution granting associate degrees that offered an AB degree. Since that time, one additional state, Colorado, has authorized the community college baccalaureate (CCB) at one public community college. Interviews with state officials revealed that a primary reason for creating AB degrees was to ease students’ difficulties in transferring between community colleges and 4-year universities. Anecdotally, we had found instances in which graduates of associate of applied science (AAS) programs would have been required to “start” their degrees at the freshman level because their applied associate course work did not
transfer to the baccalaureate level. This is not a surprising finding because, according to the NCES (2008), in the 2007–2008 school year, approximately 9.82 million students sought a credential at the subbaccalaureate level (such as a certificate or associate degree). A majority of these students, approximately 65% (6.38 million), were planning to enter the workforce following their 1 or 2 years of study. Although the term “entering the workforce” includes degrees beyond vocational or applied associate degrees, a large proportion of these students were seeking workforce-centered degrees and certificates. For many of the graduates of these programs, transferring was a highly limited option (Carnevale et al., 2010).

The second issue that AB degrees are designed to address, according to our interviews with state officials, is to facilitate increased baccalaureate degree attainment for adult students. State officials reported that, in many cases, AB degrees are an attractive option for adults who are working full-time, are place-bound, and have family commitments. To further accommodate the working-adult lifestyle, courses associated with AB degree programs are offered online or during nights and weekends. This is consistent with the large shift in enrollments in postsecondary education from a traditional college-age population (ages 18 to 25) to a nontraditional population (ages 25 to 65). The NCES (2009) predicted that such a shift would occur primarily during the 2010 decade. Furthermore, these adult students require a much different curricular and programmatic approach because they largely desire skills directly applicable to the workforce, and as working-age adults, they have unique needs (Levin, 2007).

A third issue AB degrees address is that they provide a means for states to increase baccalaureate attainment. Many of the state administrators we interviewed saw the degree as one way in which states could meet the long-term goal of increasing the number of residents who hold baccalaureate degrees or higher. The reason states desire to improve this statistic is to increase their competitiveness with other states, as well as to encourage economic growth within the state. This push for increased baccalaureate completion within states is also evident in other policy innovations, such as the CCB (Floyd, Skolnik, & Walker, 2005), the 3-year baccalaureate (Jaschik, 2009), and the use of community college and university partnerships at university centers (Bragg, Townsend, & Ruud, 2009).

Finally, a fourth issue addressed by AB degrees is to improve workforce education in the state. In most cases, AB degrees consist of course work that would improve the technical and managerial expertise of graduates. This would allow greater upward mobility for individuals in the workforce, and it could even provide these individuals with additional career opportunities. According to the National Commission on Adult
More and more, the American economy requires that most workers have at least some postsecondary education or occupational training to be ready for current and future jobs in the global marketplace, yet we are moving further from that goal” (p. v). To promote a thriving workforce, many administrators and policy makers have turned to postsecondary education to provide the education and training necessary to encourage economic growth.

Other researchers have investigated AB degrees and have reported similar results. For example, Ignash and Kotun (2005) reported that the AB degree curricula tend to use one of three models: a career ladder model, which adds additional technical course work on top of an already technical applied associate degree; a management model, which applies business and administrative course work to allow workers to move into management positions; and a general education model, which takes a variety of applied associate degrees and provides the general education courses required to meet state standards for baccalaureate degrees, although the additional course work may not be technical or managerial. Our research confirms the existence of these models but shows new variations that integrate features common to each, particularly AB degree programs that blend managerial, technical, and general education course work.

**The Convening**

Lumina Foundation’s “Big Goal 2025” (n.d.) focuses on increasing the percentage of Americans with postsecondary credentials to 60% (compared to 39% at the start of Big Goal 2025) and advocates for a policy agenda designed to improve the credentialing of adult and transfer students in the nation. To that end, Lumina encouraged and supported a “Convening” on the AB degree to bring together policy experts, practitioners, and researchers to discuss the status of the AB degree, draw on our research, and encourage dialogue on the potential of and challenges to AB degrees in the future. A related degree, the Community College Baccalaureate (CCB), was also discussed because of its potential to contribute to the production of baccalaureate degrees.

The AB Convening served as a reflection of Lumina’s commitment to increasing degree production nationally and facilitating greater educational opportunities for adult learners. Although Lumina was clear about holding no official position on AB degrees, it encouraged a robust dialogue to encourage diverse perspectives and learn about pressing issues related to AB degree implementation. The Convening brought together stakeholders, including state and federal policy makers, state chief academic officers for higher education (or their designees), researchers of community college and higher education policy, regional accrediting agencies, and foundations that support policies and research related to access to higher education; program quality, accreditation, and accountability; and degree attainment.
The format of the Convening allowed us to present our research on AB degrees and solicit audience input on the evolution of the AB, including experiences of the meeting participants with the AB degree, including successes and challenges with its implementation, and speculations about the future. The meeting agenda is shown in the Appendix, but briefly, it included an introduction by Lumina Foundation’s Holly Zanville, followed by a presentation of our national inventory, results of the policy brief prepared in early 2009 using data collected in the first phase of study, and initial findings of our case study research. Following this session, 12 administrators representing the six states chosen for our case studies (Arizona, Florida, Oklahoma, Kentucky, Texas, and Washington) discussed the status of AB degrees and commented on the prospects for the future of these degrees in their states. After this panel, another panel of representatives from five states (Georgia, Illinois, Michigan, Oregon, and Wisconsin) provided insights into how their states were experiencing the AB degree. Beginning on Day 2 of the Convening, a panel consisting of six of the seven regional accrediting bodies provided an accreditor’s view of AB and CCB degrees. A town hall session, facilitated by local media personalities, then gave the audience a final opportunity to offer other comments, insights, and perspectives that had surfaced during the meeting.

What We Learned

This paper summarizes some of the most salient themes that emerged during the Convening from sharing our research, hearing from panelists and presenters, and participating in discussions among attendees. AB degrees do not come without their share of controversy. In many ways, these degrees have several qualities that make them prone to opposition. For one, they represent a degree that involves the transfer of historically terminal credits and degrees. A common criticism of these degrees is that they challenge the quality of traditional baccalaureate degrees by legitimizing as part of a baccalaureate degree what had heretofore been considered ‘subbaccalaureate.’ Another criticism stems from these degrees’ close affiliation with CCB degrees. Our research, as well as the research of others (see, for example, Floyd & Skolnick, 2005; Floyd & Walker, 2009; Ignash & Kotuh, 2005), shows that many CCB degree programs are offered in technical and applied fields, or they allow for applied associate or AAS degree transfer. The statutory authority for community colleges to award baccalaureate degrees is still limited to 11 states only; therefore, the awarding of AB degrees in association with CCBs is still much more limited than ABs being awarded by traditional 4-year colleges and universities. Dialogue among participants during the Convening reinforced the view that a certain amount of confusion and uncertainty about, and criticism of, the AB degree comes from its association with the CCB.
Another area of dialogue among the participants was related to the different curricular models associated with the AB degree (e.g., career ladder, management, general education, and hybrid; Ignash & Kotun, 2005; Townsend et al., 2008) and the challenges that different stakeholders face in implementing instruction that is well suited to the program of study. Evidence to address these questions remains unanswered, suggesting the importance of evaluative research that delves into the impact of alternative models of curriculum and instruction pertaining to AB degree programs.

In reflecting on the dialogue among participants in the Convening, four primary themes emerged that deserve further exploration in this paper:

- Defining the AB;
- Clarifying the relationship between the AB and the CCB;
- Defining a baccalaureate education; and
- Accrediting the AB degree.

**Theme 1: Defining the AB**

A common question encountered in our research and by others who have conducted research in this area is, “What is the AB?” Although this question seems simple, it is complicated by the diverse nature of higher education in the United States, with the locus of state and local authority and the oversight of degrees varying widely across the 50 states. Some states have a highly regulated higher education system, whereas others leave a great deal of the authority pertaining to programs and degree requirements to the institutions themselves. Taking this diversity of governance into account, we adopted a definition during the first phase of our research that continues to guide our work—that the AB degree is a bachelor’s degree designed to incorporate applied associate courses and degrees once considered as “terminal” or non-baccalaureate level while providing students with the higher-order thinking skills and advanced technical knowledge and skills so desired in today’s job market. (Townsend, Bragg, & Ruud, 2009)

This definition is useful as a starting point, but it falls short of recognizing the variation and complexities identified by participants at the Convening. For example, “What is meant by an applied associate degree?” “What are non-baccalaureate-level courses?” and “What are higher order thinking skills?” All are valid questions that are difficult to answer separate from the state and institutional context that pertains to their specific audiences. Although it would be simpler to define applied associate degrees as AAS degrees, the AAS is not awarded in all 50 states. This creates the need for a general term that reflects the myriad
applied degree titles that states use, including the associate of applied technology (AAT) degree, the associate of applied arts (AAA) degree, and others. Furthermore, some states define terminal technical degrees as associate of science (AS) degrees, whereas, in most states, the AS degree is considered a traditional transfer degree. In short, the array of degree titles at the subbaccalaureate level across the states complicated our ability to define the AB degree with the level of simplicity we initially desired.

We also found the reference to “non-baccalaureate-level” course work and credits extremely difficult to quantify because associate degree-seeking students, including applied associate degree students, typically take 100- and 200-level courses, much like students taking courses to complete traditionally transferable associate degrees. It is not clear from the course numbering system what courses may or may not transfer. To this end, many institutions still evaluate the transfer of college credits on a course-by-course basis and determine whether the course constitutes a transferable, baccalaureate-level class. Continuation of this approach was cause for concern among many attending the Convening, knowing that these decisions can be inconsistent, but have such serious repercussions for their progress. Of even more concern was our use of terms such as “higher order thinking skills” and “advanced technical knowledge.” Convening participants understood the necessity of emphasizing the advanced knowledge and skill requirements of degrees that include course work at the upper division of higher education, but they wanted a fuller conceptualization of the ideas and clearer language.

**Applied Fields and State Differences**

States tend to differ from one another in what are considered AB degrees. For example, Kentucky’s AB initiative is aligned closely to baccalaureate completion, and thus the predominant approach is the inverted model. These degrees allow all types of AAS degrees to transfer, with a general education component added to facilitate baccalaureate completion for students with the applied associate degrees. This strategy differs immensely from states such as Washington and Oklahoma, where AB degrees strongly emphasize technical education. Degrees such as the bachelor of technology (BT) degrees in Instrumentation Engineering Technology, Information Assurance and Forensics, and Civil Engineering Technology offered at the Oklahoma State University Institute of Technology are highly specialized and require specific AAS degrees that transfer into the BT degrees. As a result, the designation of AB degree differs widely across the country, with variation based partly on the state in which the degrees are offered.

Another example of differences among states in AB degrees involves the fields that are considered applied. For example, officials in Florida have
widely asserted that all the bachelor’s degrees offered in their historically 2-year colleges are workforce centered and are therefore considered AB degrees. In addition to the universally understood bachelor of applied science (BAS) degrees in technical fields, some colleges in Florida offer bachelor of science (BS) degrees in fields such as education and nursing. Although officials in Florida consider the nursing and education degrees to be AB degrees, officials in other states, for example Washington, adamantly deny that such degrees are ABs, largely because they have not historically been considered terminal degrees. Programs of study for students with associate degrees in nursing and education have been well-articulated and successfully linked to transfer for many years. Because states differ in the fields they consider applied versus transfer, we chose to honor the definitions used by state officials so as to create as accurate a descriptive picture as possible of the AB degree phenomenon.

**Shifting Terminality**

Another question that arose from our research and at the Convening was whether the AB degree is simply shifting the terminality of an applied degree from the associate level to the baccalaureate level. This is a valid argument because most AB degrees had been created with a primary focus on baccalaureate attainment and workforce outcomes immediately following the baccalaureate degree. Convening attendees from many states raised the concern that educational leaders would have to develop and approve new applied master’s degrees or applied doctoral degrees to facilitate further degree attainment.

Our research in six selected states with considerable experience offering AB degrees suggests that, while some AB degree holders are matriculating to graduate programs, new graduate programs are not being created specifically for these students. Rather, AB degree-holders are being accepted in existing graduate programs without challenges to the AB degree as being a valid form of the baccalaureate degree. Whereas more research is needed to pursue this question, we found numerous examples of AB graduates who had matriculated to existing graduate programs, including some evidence that AB graduates were pursuing professional degree programs such as in business and law.
Theme 2: How the AB Relates to and the CCB

Another common issue encountered regarding the AB deals specifically with CCB degrees. The CCB degree, defined simplistically, is any form of baccalaureate degree awarded by an institution identified as a community college. Although this definition may seem clear-cut, gray areas can be found. For example, some institutions have historically been identified as 2-year associate degree-granting institutions but may not be considered community colleges, such as technical branch campuses of 4-year university systems. Furthermore, institutions that have been given the authority to award baccalaureate degrees often undergo name changes, suggesting that they may no longer identify themselves as community colleges. This phenomenon has occurred in states such as Florida and Utah.

The shift of mission proposed when policy makers discuss CCB degrees is a point of contention in many states. Even when we included 2-year branch campuses in the count, our inventory of AB degrees identified bachelor’s degrees of any type offered at associate degree-granting institutions within 11 states only. Even though the CCB is not widespread, oftentimes the AB degree is confused with the CCB; likewise, concerns raised about the CCB are assumed to apply to all AB degrees, and this assumption is faulty given the preponderance of AB degrees are awarded by traditional baccalaureate degree-granting institutions, not community colleges.

When the AB Is Not the CCB

The distinctions between the AB and the CCB are fairly easy to identify. AB degrees can be offered at 4-year institutions; furthermore, a much larger number of AB degrees are offered at 4-year public institutions compared with the number offered at community colleges (Townsend et al., 2008). These degrees are often workforce related, which is why they require a close relationship with community and technical colleges, but there are alternative delivery methods for the AB degree. One prominent example is through university centers, where 4-year institutions establish a physical presence on a community college campus and offer baccalaureate-level course work leading to a degree, offered by the participating 4-year institution. Creating partnerships between community colleges and 4-year universities to award AB degrees is quite different from granting an institution, particularly a community college, authority to award its own AB degree program.

Another delivery method that appears to be associated fairly widely with AB degrees is online or distance education, including the offering of online courses by different institutions, 2-year and 4-year, that ultimately count toward the AB degree being awarded by a particular institution. In this case, if applied course work is offered at a community college but the degree is awarded by a 4-year institution, we consider that an AB degree, but not a CCB.
When the CCB Is Not the AB

As identified earlier, CCBs differ from ABs in that some types of baccalaureate degrees are not AB degrees. Apart from AB degrees, some states have allowed community colleges to award baccalaureate degrees in traditional fields. The differences between states regarding which of these baccalaureate degrees were ABs were profound in this regard. For example, when we asked Florida state officials to identify AB degrees, they remained clear that CCB degrees in education and nursing, as workforce degrees, are also considered AB degrees. However, officials in Washington were adamant that degrees in nursing awarded by community colleges are not AB degrees because there are existing baccalaureate transfer options for students graduating with associate degrees in nursing. They took the stance that the new law in Washington to support development of AB degrees need not re-write history in terms of prior creation of transfer degrees. They maintained that existing transfer programs leading to the bachelor of science (BS) or bachelor of arts (BA) degrees should not be designated AB degrees, even when these earlier degree paths prepare graduates for fields such as nursing and teaching, rather than referring to them as a bachelor of applied science (BAS) degree.

Relevant Discussions About the CCB

Because many of the discussions at the Convening dealt specifically with the CCB rather than the AB, we would be remiss not to highlight some of the points of concern raised about the CCB. The foremost topic of discussion revolved around the phenomenon of “mission creep” or “mission shift” in community colleges that award baccalaureate degrees. Community colleges have largely operated on an open-access mission, which is highlighted by several related missions: developmental or remedial education, workforce education, and transfer. According to the argument of mission creep, when a community college receives authority to award baccalaureate degrees, it represents a fundamental shift in the college’s mission. In particular, providing a baccalaureate education requires significant changes in faculty credentialing, facilities (such as library resources), and admissions for baccalaureate programs, from open-access, open-enrollment to a more selective policy. Opponents of CCB degrees argue that community colleges that focus attention and resources on these baccalaureate degrees are doing so at the expense of the historical and fundamental missions of these colleges.

Many individuals at the Convening, including those representing the interests of community colleges and those coming from states with CCB degrees, responded to concerns surrounding mission creep. A notable comment came from Juan E. Mejia, vice president for Academic Affairs
at South Texas College (STC). STC currently offers two bachelor of applied technology (BAT) degrees, one in Computer and Information Technologies and the other in Technology Management. According to Mejia, “There is no intent to mission drift from the comprehensive mission of the institution. We are fulfilling our mission by awarding these applied baccalaureate degrees. We do not refer to them as a CCB. Instead, the community college recognizes it as a baccalaureate degree that happens to be offered at the community college.” An overarching function of the community college is to respond and react to the needs of the surrounding community. In the case of STC, baccalaureate attainment in technical fields is meeting the paramount needs of business and industry, supported by economic development corporations and chambers of commerce, and requested by students. To fulfill this need, STC sought was selected by the state legislature, accredited by its regional accreditation agency as a Level II baccalaureate granting institution, and approved by its coordinating board as one of three community colleges in Texas to award baccalaureate degrees. Besides these limited offerings, Texas is a state with extensive awarding of AB degrees by 4-year institutions.

Representatives from Florida, a state recognized nationally as a leader in awarding CCB degrees, offered a similar defense of community colleges awarding baccalaureate degrees. Judith Bilsky, executive vice chancellor of Student and Academic Success at the Florida Colleges, argued that “[mission creep] is not descriptive of what’s going on. . . . [T]he historical mission of the community college includes open access, serving underserved populations, being responsive to local needs, and providing a high-quality education, all of which are still present in the Florida [community] colleges [offering baccalaureate degrees].” Her preferred term for the evolution of community colleges in Florida is “[mission authentic],” in that Florida’s community colleges are fulfilling their mission of improving access by diverse students when they continue to evolve and award baccalaureate degrees.

During a panel session involving representatives from states with emerging AB policies, moderator Dewayne Matthews of Lumina Foundation asked the panelists to address the issue of mission creep with respect to community colleges awarding baccalaureate degrees. His pointed questions to the panel were, “Does mission creep exist?” “Should we be concerned about it?” and “If yes, what is the appropriate response from the states?” Several responses are worth highlighting. One position taken by panelists and individuals in the audience was that community colleges fill a niche in subbaccalaureate education through workforce education, or even remedial education, and the historic transfer mission is the appropriate function to lead students beyond subbaccalaureate education to the baccalaureate degree level. To these individuals, the
CCB was not an issue worth challenging, because the needs for baccalaureate-level education were managed by the 4-year colleges and universities. In many ways, the issues surrounding the CCB are highly contextualized in the states. Oregon, a state that has legislatively authorized a study into implementation of new AB degrees, is not considering the CCB at this time, mainly for this reason.

On the other hand, several individuals talked about mission creep within a broader context, one that extends even to 4-year institutions. For example, several panelists and attendees commented that some regional 4-year universities have been seeking approval to award doctoral degrees or to start medical school programs. These policies, the individuals argued, represent the same type of mission creep as seen in community colleges, wherein institutions are seeking to award "higher" degrees to extend the mission and improve the image of the school. Many agreed this is a concern that community colleges and universities alike should be wary of when considering a shift in mission or programmatic offerings. Institutions should determine whether such changes would represent a fundamental shift in mission, the constituencies served, or the resources provided to other programs. According to Marci Middleton from the Georgia Board of Regents, "In this time of budget cuts, there are repeated concerns about academic duplication... We need to be careful and cognizant of mission creep."

A recent report by Alene Russell (2010), a senior state policy consultant at the American Association of State Colleges and Universities (AASCU), highlights the CCB degree and presents many arguments, both for and against, posed by policy makers and other stakeholders. The report identifies 18 states that are considered CCB states, including in her count several states (Arkansas, Georgia, Louisiana, New Mexico, Utah, and Vermont) where community colleges converted into 4-year institutions after receiving the authority to award baccalaureate degrees, as well as two states (Indiana and Minnesota) where the CCBs offered are in traditional fields not identified by state officials as AB degrees.

What is clear in Russell's report is that many states have arrived at the CCB as a solution to challenges to transfer and baccalaureate attainment, after trying other options. It is also evident that concerns over mission creep may not be as unfounded as some CCB supporters contend. In six states, the adoption of CCB programs led to the reclassification of community colleges to 4-year institutions, leading to fundamental change to their mission when given the authority to award baccalaureate degrees. Although, in some cases, states have pushed for this change in mission, Russell notes that critics of the CCB go so far as to say that community colleges are "abandon[ing] the access mission," which some would agree is a valid concern and others would refute as a legitimate threat.
On the other side of the argument, according to Russell, proponents of the CCB can point to several issues that are of utmost importance to states, particularly in terms of economic benefits. In some states, calls abound for greater affordability and enhanced quality on a low budget. CCB degrees, in this case, expand access at lower cost than baccalaureate degrees at traditional 4-year institutions. Additionally, taxpayer costs are reduced and economic benefits are gained from meeting workforce demands that may not be met by traditional baccalaureate degrees. Furthermore, community college personnel often have substantial expertise and training in workforce development and technical education from which AB degree programs would benefit.

<table>
<thead>
<tr>
<th>Theme 3: Defining a Baccalaureate Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Another important discussion that emerged from the Convening dealt with the issue of understanding what employers, policy makers, students, and other stakeholders expect to be the outcomes of a baccalaureate education. The traditional approach to defining a baccalaureate education has involved identifying the credits and courses required, but this approach assumes that the prescribed course load will yield learning outcomes that are difficult to quantify or measure. As the AB degree has increased in prominence in several states, the answer to the question of what constitutes a quality baccalaureate degree has become less clear. When applied associate course work was considered terminal and nontransferable, there was less concern about the value of these courses in the context of a baccalaureate education; however, now that these courses are allowed to transfer, they are meriting closer attention. With the minimum general education requirements established by states and some accrediting agencies, the requirement of program directors to keep careful count of the types of credits awarded in baccalaureate programs is an issue that will not go away.</td>
</tr>
</tbody>
</table>

**AB Models and Defining the Baccalaureate**

One issue raised by attendees during and after the Convening dealt with the difficulty of clearly defining the value of an AB degree when different models exist, particularly because the models differ substantially in terms of the curricular requirements of the degrees and the expected outcomes of the programs. If we assume the four-model approach (career ladder, business/management, and completion/inverted, along with a hybrid model), then AB degrees are not as specific as some policy makers may like about what skills graduates will need to be successful employees.

The clearest examples of such disparities are those that exist between
degrees that are intended to serve as completion degrees for a wide variety of applied associate degrees and those that are highly technical and specific to career ladder degrees. Completion programs offer transfer opportunities for a large number of associate degrees and a large range of course work, and they likewise are seen by some state policymakers as a large-scale approach to facilitating baccalaureate completion, particularly for adult and place-bound learners. Career ladder programs, on the other hand, are primarily designed to deal with local or regional workforce needs, and they often incorporate highly specialized applied associate degrees aimed toward a similarly highly specialized baccalaureate degree. As a result, these programs tend to be smaller in terms of enrollment, but are often viewed by educational leads as programs that are more technically or academically rigorous than completion programs.

When different programs are compared, these nuances complicate discussions about the rigor and value of AB degrees because different models appear to have different levels of specialization, leading to different outcomes. Concerns about completion-type programs may not apply to career ladder programs, and vice versa. When considering AB degrees in light of their value or their potential redefinition of a baccalaureate education, the particular AB models in question need to be qualified and considered in all discussions. For example, critics of AB and CCB programs may be more receptive to the career ladder approach because it is less likely to be duplicative with traditional programs. However, a criticism of the career ladder approach is in the transfer of substantial terminal credit. On the other hand, completion degree programs, while having a potential for large enrollments, exhibit potential for a lack of focus, leading to claims that the programs credential learners without certainty of value of the accumulated learning.

**General Education and AB Degrees**

Most state officials have been clear about requirements for general education that must be met by all transfer programs, including ABs. In some cases, however, the courses that qualify as general education within AB programs are technical in nature, applying hands-on and workforce-related concepts to courses required of baccalaureate-level education. These specialized approaches are one way in which technical degree programs apply specialized training even within the context of a general education. In some AB degrees, however, specialized approaches are not necessary. In these cases, general education follows the traditional model, allowing courses to be applied in a variety of different fields by being as generalized as possible. These degrees typically follow the AB models associated with management or completion because they allow the transfer of a wider variety of applied associate degrees.

The transfer of general education courses remains an imprecise science,
however. Unless 4-year institutions take steps to detail the articulation of general education course work from associate- to baccalaureate-level degrees, they often resort to evaluating credits on a course-by-course basis. When this happens, general education courses that use a technical approach are often brought into question. According to Ralph Wolff, president of the Accrediting Commission for Senior Colleges and Universities of the Western Association of Schools and Colleges, those who support technical course work have to break down a lot of mind-sets: What is creditable, transferrable, and academic?”

**Outcomes Assessment**

To answer the question about general education and whether students are receiving an appropriate and quality baccalaureate education, many advocates for the AB degree have pressed for outcomes assessment, wherein the outcomes of general education (or the whole of postsecondary education) are both quantified and qualified. Outcomes are assessed to the extent that institutions and programs are capable of designing course work that meets the expectations of the expressed outcomes, but these outcomes can be modified to meet the specific goals of the programs in question (Kuh & Ikenberry, 2009).

Such a proposal requires a forward-focused, nationwide dialogue on what a baccalaureate education is intended to be. However, determining the outcomes desired from a baccalaureate education may allow institutions to develop more flexible programs, allow more credit for experience, incorporate past experiences (e.g., military experience) into educational programs, and develop new degree formats (such as the 3-year bachelor’s degree) that are capable of meeting the expectations of a baccalaureate education but that are flexible enough to respond to different needs. Although this topic was discussed extensively at the Convening, it is a conversation that requires involvement from a much larger segment of the country to establish a consensus on the expectations of a postsecondary education. Lumina’s new degree qualification profiles (Adelman et al., 2011) may provide a useful framework for examining competencies associated with various AB degrees, thereby helping a wide range of stakeholders to understand baccalaureate degrees having a purposeful applied dimension.

**Theme 4: Accrediting the AB Degree**

One panel that was especially noteworthy at the Convening was composed of presidents of six of the seven regional accrediting bodies. Although the majority of the discussion centered on the CCB degree, several of the conversations between accreditors and attendees brought new perspectives to the issues raised throughout the Convening.

One consensus that the accreditors were able to reach was that AB degrees are instrumental in meeting an established need. Belle Wheelan,
president of the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), recognized that the development of ABs in the Southern region stemmed largely from workforce demands. Others agreed that the degrees are seen as a way to address several unmet needs in higher education.

**What Is Academic?**

One particularly interesting conversation occurred when one of the accreditors raised the question of which programs would be considered academic enough for baccalaureate-level credentialing. Using welding as a reference point for much of the discussion on academic rigor, the group explored how welding and similar programs of study might not be considered sufficiently academic to qualify for a baccalaureate degree, whereas other fields that have technical applications, such as mechanical engineering, do. Paul Lingenfelter, the moderator, asked for follow-up discussion on what criteria and indicators identify a program as “academic.” The response, from Ralph Wolff of the Western Association of Schools and Colleges, focused on the need to move away from looking only at what the classes are teaching students to looking at what outcomes are being developed in students, similar to other discussions regarding outcomes assessment and the redefinition of a baccalaureate education. If outcomes are identified as truly academic, then technical programs can be adapted to meet the academic rigor criteria. In other words, welding should not be considered “nonacademic” until we determine what is truly academic; when academic quality criteria are established, programs like welding may or may not make the cut.

Another important point raised by the panel was how traditional collegiate culture treats technical degree programs, often considering them, at a fundamental level, to be nonacademic and of lesser value as a bona fide college major. Sylvia Manning, of the Higher Learning Commission, observed, “A baccalaureate program is 120 credits of college-level work. At a developmental level we don’t have much disagreement, but when you get into the major, it gets messy. If the major is welding, most people would see that as inappropriate, but if I push hard I can find similar difficulties with, for example, violin.” She suggested that firm guidelines are needed for general education to avoid the risk of subjective decisions that determine one particular degree program field is considered academic when another is not.

**“Fits the Mission”**

One perspective repeated by several accreditors was that accreditation is about determining whether degrees and programs are fulfilling the expressed mission of the institution. This is true for both the AB and the CCB. According to Belle Wheelan, from SACSCOC, “We don’t get into
motivation. We do get into determining whether [these programs] fit their mission. Some [institutions] have had to change degrees as a result, and some have not.” Accreditors, then, find out what the institution’s mission is in proposing a new degree plan and evaluate the degree of fit. For example, institutions with a religious mission might not be able to pursue a degree in welding, [because] that would raise flags.” Institutional mission is very important to accreditors, including with respect to new degree programs such as the CCB. The view of the accreditors was that if a community college wanted to pursue a CCB degree, they are not be opposed to it, provided the new degree does not change the school’s mission and threaten overall degree programs and services.

Mission Creep?

Several policies have been put in place to prevent mission creep, particularly at the regional accreditation level. As mentioned in the last section, accreditors look to approve programs that fit the mission, so community colleges that can justify baccalaureates as meeting the mission do not exhibit mission creep. For example in the New England accrediting region, according to Barbara Brittingham, —W require separate applications for at least the first three baccalaureate degrees until the Commission determines that the institution has developed what we call a _baccalaureate culture._” In other words, some regions have clear policies in place that allow some flexibility in degree programs. The same types of rules are taken into consideration when, for example, a baccalaureate degree-granting institution proposes awarding master’s or doctoral degrees. According to Ralph Wolff, —W want to be careful in saying that [having] one or two elevated degrees out of a large number . . . requires the whole institution to become different, because that’s not the reality.” Accreditors recognize that some flexibility is necessary for institutions to meet their own mission, and they do not immediately recognize single degree programs that deviate from historical offerings as representing mission creep.

SACSCOC goes further on this point to allows the hybridization of programs. The most prominent model of this can be seen in Florida, where several community colleges have dropped the word —community” from their names. Belle Wheelan offered a concern about how the public may perceive of shifts in community colleges toward awarding baccalaureate degrees, indicating that the SACSCOC has adapted to allow hybrid (associate and bachelor’s) committees to assess institutions, and it has been careful to instruct committee members to avoid being critical of programs that are outside what they consider to be the norm or are not reflective of what is occurring at the committee members’ home institutions.

Beth Sibolski, from the Middle States Commission on Higher Education,
noted that "we need to distinguish between mission creep and degree creep." She noted that certain fields have begun to desire baccalaureate-level education for their workers. Community colleges have been looking to award these baccalaureate degrees to remain true to their mission. In this case, according to Sibolksi, this represents degree creep and not mission creep because the mission remains unchanged—only the degree required to meet the mission is changing.

<table>
<thead>
<tr>
<th>What We Need to Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>AB degrees are still very much in their infancy. Convening participants registered a high level of enthusiasm as well as concern regarding the AB. These degrees represent a way in which institutions can remain in tune with employers and the at-large workforce demands, and can reach a historically underserved population of adult, place-bound, full-time working students. These goals represent the same goals offered by President Obama in the American Graduation Initiative, which is directed toward community colleges tapping the market of potential students to produce more graduates nationwide. What is still unclear is whether these degrees are providing the types of outcomes so desired by administrators, employers, and even students. This is not to say that the degrees are not delivering on these outcomes; instead, it points to the lack of research and evaluative evidence. We simply do not know.</td>
</tr>
</tbody>
</table>

**Questions for Practitioners**

In our earlier papers and reports, we strove for an objective stance in reporting results on AB degrees. While observing their potential and documented merits, we concluded that AB degrees are not necessary or appropriate for all higher education institutions; that is, they are not a magic bullet. In its most meritorious form, the degree draws upon a broad-based stakeholder group to determine the best course of action to address regional and state workforce needs, and it targets working adults who seek to advance in their careers. Input from students; institutional staff, state and regional administrators; employers and workforce boards; and others, is compiled to create a highly pragmatic program of study.

In Ruud, Bragg, and Townsend (2009), we examined the policy window (Kingdon, 1995) that opened to create the AB degree in two states (Florida and Washington). Kingdon’s theory asserts that, at a particular point in time, policy decisions, such as the AB, hinge on the convergence of three streams. The first is a problem; in the case of the AB, the problem aligns with state, regional, or local workforce needs. The second has to do with politics, wherein the public as well as policy makers and other stakeholders are receptive to dramatic changes to educational policies (e.g., AB degrees). The third stream is policy; in this case, the AB degree is viewed as a reasonable option and is seriously considered
by policy leaders and other powerful stakeholders. Using this model, we concluded that AB degrees emerge at the right time and in the right place for each particular state or institution.

If AB degrees are to be implemented further, careful deliberation needs to be given to determining whether (and where) the degrees should be offered, what fields of study make sense, and what outcomes are expected. The question of location involves not only geographic proximity to the target populations, but also which institutions can provide such degrees. In many states, the CCB is not the preferred option, but if geographic needs emphasize that baccalaureate-level applied education is required, then the CCB may continue to emerge as a reasonable alternative, even though university centers, online learning, and other collaborative approaches seem equally compelling as means to expand the delivery of baccalaureate education.

Questions for Researchers

It may seem obvious to say that ―further research is needed,‖ but in fact, this is true. First and foremost is the need for more research on developments happening across the nation: With growth continuing, what discussions are emerging in states considering implementing or expanding AB degrees? By contrast, are any of these degrees disappearing because of low enrollments or a lack of fit with workforce needs. We believe it is important to keep close watch on developments in the AB degree, because the vast difference in approaches among the states. Practitioners and policy makers need to continue to know which approaches work and how sustainable the degrees are in particular states.

Another area of research that many at the Convening noted is in the area of student outcomes. We found no careful empirical examination into the outcomes of graduates of AB programs. Furthermore, research should look at how students in AB programs differ from those in traditional baccalaureate programs, as well as in traditional applied associate degree programs, to determine factors that lead graduates to enroll. Better understanding the nuanced nature of student populations would provide insights into the models and programs that will serve their needs best. What benefits come from graduating with an AB degree compared with a non-AB degree? What about the long-term outcomes: Is employability and career advancement enhanced (or narrowed) for AB graduates?

No doubt, the CCB is more controversial than the AB, so research on the CCB needs to recognize the additional dynamics that come with these degrees relative to the AB. For example, how do AB degrees offered by traditional 4-year institutions differ from those offered by community colleges? Are there benefits to receiving both the applied associate and
the AB degree at the same institution, or should students pursue the AB through transfer to a traditional baccalaureate institution when the option exists? Are students who graduate with applied associate degrees transferring to other collegiate programs at either the traditional associate or the baccalaureate level? Such questions may contribute to a better understanding of the CCB as well as the AB.

Researchers should also examine philosophical and practical questions surrounding the purpose of a baccalaureate education. At some level, all degrees awarded by institutions are “workforce” degrees; some are more technical than others, but ultimately, almost all claim to create better job prospects. What are the benefits of bachelor’s degree programs, and can these outcomes be met by AB degrees? What is the feasibility of the 3-year baccalaureate (or the CCB), especially when considering these outcomes? Overall, this conversation was one of the most provocative of the Convening, which indicates to us that this issue is of paramount importance to the future of higher education and to future research.

In all, the AB degree represents one way in which states and institutions can address the needs of a growing adult population that chooses to learn and earn simultaneously. Time will tell whether the AB degree represents a way to increase the number of individuals with postsecondary credentials, and particularly whether the AB degree improves baccalaureate completion. Time will also reveal whether these degrees provide an equitable solution for graduates of historically terminal applied associate degrees who would otherwise find themselves unable to transfer to the baccalaureate level and possibly also unable to move up in their careers. We suggest that, although some scholars have held the degree in a positive light, too many questions still remain to determine its fate. What we do know is that the Lumina Convening created a highly productive dialogue, one that had never taken place among stakeholders representing institutional, state, and national perspectives. Undoubtedly, much of importance was learned, but the dialogue needs to continue, to help states and institutions navigate the complex landscape of an ever-evolving higher education system.
References


Related Resources


Applied Baccalaureate Developments and Future Implications

September 1–2, 2010
Marriott Downtown Indianapolis
350 W. Maryland Street, Indianapolis, Indiana

Agenda

**September 1, 2010—Marriott Ballroom 7–9**

10:00 a.m.  Registration

10:30 a.m.  **Welcome and introductions**—Holly Zanville, Lumina Foundation

11:00 a.m.  **Findings from the applied baccalaureate degree project**—Debra Bragg and Collin Ruud, Office of Community College Research and Leadership, University of Illinois

1.  Moving targets—evolving applied baccalaureates/community college baccalaureates
2.  Challenges of definitions
3.  Models and curriculum
4.  Key stakeholder perspectives
5.  Policy implications

*Questions and discussion following presentation*

12:00 p.m.  Lunch—Circle City Bar and Grill (Lobby area)

1:00 p.m.  **Panel presentation and discussion**: State perspectives on applied baccalaureate and community college baccalaureate policies and programs—Dewayne Matthews, Lumina Foundation (Moderator)

1.  Current status of degree programs
2.  Considerations in implementing applied baccalaureate and/or community college baccalaureate degrees—decisions to utilize or not utilize community colleges to provide baccalaureate degrees
3.  Key stakeholder (legislators, community colleges, universities, employers, others) perceptions and the value of applied baccalaureates and community college baccalaureates
4.  Implications (policy, workplace, institutional roles)

State and Institutional Representatives:

- **Florida**: Judith Bilsky, Executive Vice Chancellor, Office of Student and Academic Success and Task Force on the BAS Degree, Florida Department of Education; Ian Neuhard, Director of Baccalaureate Programs, Indian River State College
- **Texas**: Van Davis, Special Projects Director, Academic Programs, Texas Higher Education Coordinating Board; Juan E. Mejia, Vice President for Academic Affairs, South Texas College
Arizona: Stephanie Jacobson, Associate Vice President for Academic and Student Affairs, Arizona Board of Regents; David A. Young, Senior Vice President for Academic Affairs, Arizona State University

Oklahoma: Debbie Blanke, Associate Vice Chancellor for Academic Affairs, Oklahoma State Regents; Linda Avant, Executive Vice President for Academic Affairs, Oklahoma State University Institute of Technology

Kentucky: Linda Linville, Assistant Vice President, Academic Affairs, Kentucky Council on Postsecondary Education; Jay Box, Chancellor, Kentucky Community and Technical College System

Washington: Jan Ignash, Deputy Director of Policy, Planning, and Research, Washington Higher Education Coordinating Board; Jan Yoshiwara, Deputy Executive Director, Education Division, Washington State Board for Community and Technical Colleges

3:00 p.m.  Break

3:15 p.m.  Panel discussion: States’ emerging experiences with applied baccalaureate and/or community college baccalaureate policies and programs—Dewayne Matthews, Lumina Foundation (Moderator)

1. Emerging/changing status of applied baccalaureate and community college baccalaureate policies
2. Perceptions of key stakeholders (legislators, community colleges, universities, employers, others)
3. Future trajectories
4. Implications (policy, workplace, institutional roles)

State Representatives:

Georgia: Marci M. Middleton, Assistant Vice Chancellor for Academic Programs, Georgia Board of Regents

Illinois: Bob Blankenberger, Deputy Director, Academic Affairs, Illinois Board of Higher Education

Michigan: Michael Hansen, President, Michigan Community College Association

Oregon: Camille Preus, Commissioner, Oregon Department of Community Colleges and Workforce Development

Wisconsin: Dan Clancy, President, Wisconsin Technical College System

5:00 p.m.  Adjourn

5:45 p.m.  Meet to walk to the Lumina Foundation office (3 blocks)

6:00 p.m.  Reception (cocktails, heavy hors d’oeuvres), tour of new Convening Center (Lumina Foundation, 30 S. Meridian St., Suite 700)

7:30 p.m.  Evening on your own
September 2, 2010—Marriott Ballroom 7–9

7:30 a.m.  Breakfast

8:15 a.m.  Where we left off yesterday—Holly Zanville, Debra Bragg

8:30 a.m.  Panel discussion: Institutional accreditation and applied baccalaureate and community college baccalaureate degrees—Paul Lingenfelter, State Higher Education Executive Officers (Moderator)
   1. Status of applied baccalaureates and community college baccalaureates in the regions
   2. Consideration of applied baccalaureate and community college baccalaureate degrees at both 2- and 4-year institutional levels
   3. Future trajectories
   4. Policy implications

Regional Accreditation Leaders:
   • Barbara Beno, Western Association of Schools and Colleges Accrediting Commission for Community and Junior Colleges
   • Barbara Brittingham, New England Association of Schools and Colleges
   • Sandra Elman, Northwest Commission on Colleges and Universities
   • Sylvia Manning, Higher Learning Commission on North Central Association
   • Elizabeth Sibolski, Middle States Commission on Higher Education
   • Belle Wheelan, Southern Association of Colleges and Schools Commission on Colleges
   • Ralph Wolff, WASC Accrediting Commission for Senior Colleges and Universities

10:15 a.m.  Break

10:30 a.m.  Town hall—Where is this going? What next?—Diane Willis and Clyde Lee, Lee/Willis Communications (Moderators)
   1. How will these degree programs and policies look 3 to 5 years from now? 5 to 10 years from now?
   2. What other notable developments in the workforce, the economy, and higher education may stimulate or inhibit these kinds of degree programs and policies?
   3. What questions or issues have not been discussed that should be discussed?
   4. What questions or issues need further study and development?

11:45 p.m.  Closing remarks—Debra Bragg, Jamie Merisotis

12:15 p.m.  Networking lunch
Status of Applied Baccalaureate (AB) Degrees, by State*

<table>
<thead>
<tr>
<th>State</th>
<th>Any AB</th>
<th>4Y AB</th>
<th>2Y AB</th>
<th>Prior CCB</th>
<th>AB legislated</th>
<th>Accreditor</th>
<th>No. 2Y ABs</th>
<th>No. 4Y ABs</th>
<th>Decade Implemented</th>
<th>AB degree designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>AL</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td>SACS</td>
<td>0</td>
<td>1</td>
<td>1970</td>
<td>BAS</td>
</tr>
<tr>
<td>AK</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td>NWCCU</td>
<td>0</td>
<td>1</td>
<td>1990</td>
<td>BST</td>
</tr>
<tr>
<td>AZ</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>NCA-HLC</td>
<td>0</td>
<td>4</td>
<td>1990</td>
<td>BAS</td>
<td></td>
</tr>
<tr>
<td>AR</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>NCA-HLC</td>
<td>0</td>
<td>4</td>
<td>1990</td>
<td>BAS</td>
<td></td>
</tr>
<tr>
<td>CA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>NCA-HLC</td>
<td>1</td>
<td>0</td>
<td>2000</td>
<td>Planning phase</td>
<td></td>
</tr>
<tr>
<td>CT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DE</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td>MSCH</td>
<td>0</td>
<td>1</td>
<td>1980</td>
<td>BAS</td>
</tr>
<tr>
<td>FL</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>SACS</td>
<td>9</td>
<td>2</td>
<td>2000</td>
<td>BAS, BSAS</td>
<td></td>
</tr>
<tr>
<td>GA</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>SACS</td>
<td>4</td>
<td>6</td>
<td>1990</td>
<td>BAS, BS</td>
<td></td>
</tr>
<tr>
<td>HI</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>WASC</td>
<td>1</td>
<td>1</td>
<td>2000</td>
<td>BAS</td>
<td></td>
</tr>
<tr>
<td>ID</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>NWCCU</td>
<td>0</td>
<td>3</td>
<td>1980</td>
<td>BAS, BAT</td>
<td></td>
</tr>
<tr>
<td>IL</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>NCA-HLC</td>
<td>0</td>
<td>11</td>
<td>1970</td>
<td>BS, BAAS</td>
<td></td>
</tr>
<tr>
<td>IN</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>NCA-HLC</td>
<td>1</td>
<td>2</td>
<td>1980</td>
<td>BA, BS</td>
<td></td>
</tr>
<tr>
<td>IA</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>NCA-HLC</td>
<td>0</td>
<td>3</td>
<td>2000</td>
<td>BAS</td>
<td></td>
</tr>
<tr>
<td>KS</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>NCA-HLC</td>
<td>0</td>
<td>3</td>
<td>2000</td>
<td>BAS, BAAS</td>
<td></td>
</tr>
<tr>
<td>KY</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td>SACS</td>
<td>0</td>
<td>8</td>
<td>1990</td>
<td>BS, BA, BGS, BAGS, BALS</td>
<td></td>
</tr>
<tr>
<td>LA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ME</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td>NEASC</td>
<td>0</td>
<td>2</td>
<td>2000</td>
<td>BAS</td>
</tr>
<tr>
<td>MD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MI</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td>NCA-HLC</td>
<td>0</td>
<td>3</td>
<td>2000</td>
<td>BAS, BAA, BS</td>
<td></td>
</tr>
<tr>
<td>MN</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td>NCA-HLC</td>
<td>0</td>
<td>7</td>
<td>1990</td>
<td>BAS</td>
<td></td>
</tr>
<tr>
<td>MS</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td>SACS</td>
<td>0</td>
<td>1</td>
<td>2000</td>
<td>BAS</td>
<td></td>
</tr>
<tr>
<td>MO</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>NCA-HLC</td>
<td>0</td>
<td>5</td>
<td>1970</td>
<td>BS, BSIT</td>
<td></td>
</tr>
<tr>
<td>MT</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td>NWCCU</td>
<td>0</td>
<td>5</td>
<td>1990</td>
<td>BAS</td>
<td></td>
</tr>
<tr>
<td>NE</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td>NCA-HLC</td>
<td>0</td>
<td>2</td>
<td>1980</td>
<td>BAS</td>
<td></td>
</tr>
<tr>
<td>NV</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>NWCCU</td>
<td>3</td>
<td>1</td>
<td>2000</td>
<td>BAS</td>
<td></td>
</tr>
<tr>
<td>NH</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NJ</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NM</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>NCA-HLC</td>
<td>0</td>
<td>2</td>
<td>2000</td>
<td>BAS</td>
<td></td>
</tr>
<tr>
<td>NY</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>MSCH</td>
<td>1</td>
<td>3</td>
<td>1970</td>
<td>BT, BBA</td>
<td></td>
</tr>
<tr>
<td>NC</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td>SACS</td>
<td>0</td>
<td>1</td>
<td>2000</td>
<td>BS, BSIT</td>
<td></td>
</tr>
<tr>
<td>ND</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>NCA-HLC</td>
<td>1</td>
<td>3</td>
<td>2000</td>
<td>BAS</td>
<td></td>
</tr>
<tr>
<td>OH</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>NCA-HLC</td>
<td>2</td>
<td>4</td>
<td>1990</td>
<td>BS, BS, BAOT</td>
<td></td>
</tr>
<tr>
<td>OK</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>NCA-HLC</td>
<td>2</td>
<td>8</td>
<td>1980</td>
<td>BAAS, BAT, BT, BS</td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PA</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>MSCH</td>
<td>0</td>
<td>1</td>
<td>1980</td>
<td>BS</td>
<td></td>
</tr>
<tr>
<td>RI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SC</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td>SACS</td>
<td>0</td>
<td>3</td>
<td>2000</td>
<td>BS, BETM</td>
<td></td>
</tr>
<tr>
<td>SD</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td>NCA-HLC</td>
<td>0</td>
<td>2</td>
<td>1990</td>
<td>BAS</td>
<td></td>
</tr>
<tr>
<td>TN</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TX</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>SACS</td>
<td>3</td>
<td>15</td>
<td>1980</td>
<td>BAT, BAAS</td>
<td></td>
</tr>
<tr>
<td>UT</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>NWCCU</td>
<td>0</td>
<td>3</td>
<td>1990</td>
<td>BAS</td>
<td></td>
</tr>
<tr>
<td>VT</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>NEASC</td>
<td>0</td>
<td>1</td>
<td>1980</td>
<td>BS</td>
<td></td>
</tr>
<tr>
<td>VA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WA</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>NWCCU</td>
<td>4</td>
<td>4</td>
<td>2000</td>
<td>BAS</td>
<td></td>
</tr>
<tr>
<td>WV</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>NCA-HLC</td>
<td>1</td>
<td>4</td>
<td>2000</td>
<td>BAS, BAT</td>
<td></td>
</tr>
<tr>
<td>WI</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>NCA-HLC</td>
<td>0</td>
<td>2</td>
<td>2000</td>
<td>BAS</td>
<td></td>
</tr>
<tr>
<td>WY</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>NCA-HLC</td>
<td>0</td>
<td>1</td>
<td>2000</td>
<td>BAS</td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>41</td>
<td>39</td>
<td>13</td>
<td>5</td>
<td>10</td>
<td>33</td>
<td>139</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Data for this chart are taken from Townsend, Bragg, and Ruud (2008) and inventory-phase research. Highlighted text indicates state selected for second-phase research. Accreditors: SACS, Southern Association of Colleges and Schools; NWCCU, Northwest Commission on Colleges and Universities; NCA-HLC, North Central Association of Colleges and Schools’ Higher Learning Commission; MSCHE, Middle States Commission on Higher Education; WASC, Western Association of Schools and Colleges; NEASC, New England Association of Schools and Colleges. Degree designations: CCB, community college baccalaureate; BAS, bachelor of applied science; BST, BSAS, BS, bachelor of applied technology; BAA, bachelor of arts; BGS, BAGS, BALS, BAS, BAA, BSIT, BT, BBA, BS, BETM, BAOT, BETM, BATS, BATS.