



THE ADULT LEARNER AND THE APPLIED BACCALAUREATE: EMERGING LESSONS FOR STATE AND LOCAL IMPLEMENTATION

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Expanding postsecondary education for adult learners and those already in the labor force is vital to the United States' workforce and economy (Pusser et al., 2007), yet adults struggle to find suitable paths to and through college. The percentage of adults with a baccalaureate degree or higher is as low as 18% in some states, and only as high as 41% in the best (National Center for Public Policy and Higher Education, 2006). The National Center's most recent *Measuring up 2008* report shows participation rates of working-age adults have declined since the 1990s, heightening the need for improved access to college for adults. In the nation's changing economy, there is an increasing necessity for baccalaureate level education for a number of jobs that have never before required that level of education. One potential solution to issues related to baccalaureate attainment and workforce development is the applied baccalaureate degree.

The Adult Learner and the Applied Baccalaureate project is designed to provide federal, state, and local educational leaders and policy makers with information about the applied baccalaureate degree in the United States. This policy brief draws upon results of a 50-state study to inventory applied baccalaureate degree programs (Townsend, Bragg, & Ruud, 2008). Using data obtained from telephone interviews with state officials, and from Web sites, reports, legislation, and other materials provided by the states, we describe the status of applied baccalaureate programs offered by public associate degree-granting and traditional baccalaureate degree-granting colleges and universities. This information is especially important at a time when states seek to enhance student access to higher education (American Association of Community Colleges, 2004; Council for Adult and Experiential Learning, 2008) and prepare graduates for sectors of the workforce that require more highly educated employees (Bosworth et al., 2007).

Background

Baccalaureate attainment has been a concern of American higher education for some time. Within postsecondary education, it is recognized as a definitive marker of educational attainment, and it also creates an economic advantage for students and state and federal governments by opening up job opportunities, increasing salaries, and increasing productivity. According to Cabrera, Burkum, and LaNasa (2005), "a bachelor's degree is no longer considered a potential stepping-stone to a better life. It is fully acknowledged as the gatekeeper to a myriad of social and individual benefits" (p. 2). Employers now require baccalaureate degrees for positions that have until recently never required them (Walker, 2002).

Applied baccalaureate degrees have arisen from a number of convergent forces. They provide a bachelor's degree option for participants in Associate of Applied Science (AAS) degree or applied associate degree programs offered primarily in occupational-technical (or career-technical) education program areas. These degree programs represent a potentially important curriculum path to the baccalaureate for a sizeable number of postsecondary students. The most recent National Assessment of Vocational Education estimates one-third of undergraduate students are enrolled in postsecondary occupational-technical programs (Silverberg, Warner, Fong, & Goodwin, 2004). Adults are prevalent among these learners (Bailey, Alfonso, Scott, & Leinbach, 2004), raising the question of whether the applied baccalaureate may enhance educational access and opportunity for adults who have limited access to higher education beyond the two-year college level. Advocates envision them as a means to expand access to the baccalaureate; critics claim they represent a threat to the integrity of the baccalaureate degree, diminishing quality and adding cost to an increasingly expensive higher education system.

This brief summarizes results originally presented in *The Adult Learner and the Applied Baccalaureate: National and State-by-State Inventory* by Townsend, Bragg, and Ruud (2008), along with additional results concerning state and local implementation drawn from 50-state inventory. The authors gratefully acknowledge funding from Lumina Foundation for Education and thank state officials and advisory committee members who reviewed drafts and provided feedback. The 50-state inventory can be found at: <http://occril.ed.uiuc.edu/Projects/lumina/AppBaccInventory.pdf>

Four convergent forces appear in policy discussions about baccalaureate attainment that have implications for the applied baccalaureate. First, transfer to traditional baccalaureate degree-granting institutions has grown considerably during the second half of the 20th century as more students use community and technical colleges as the entrée point to higher education. The growth of transfer courses to the baccalaureate level is a cornerstone mission. Cohen (2003) notes that at least 40% of students receiving a baccalaureate degree have had some credits transferred from an associate degree-granting institution. Scholars, educational leaders, and policy makers recommend increasing transfer opportunities and streamlining transfer policies to improve the success of students matriculating to the baccalaureate level (see, for example, Wellman, 2004). The Secretary's Commission on Higher Education (United States Department of Education, 2006) also voiced its support for improved transfer policies. Critics point to low transfer rates, but Townsend (2007) counters by suggesting the changing environment of community colleges may increase transfer and baccalaureate attainment. She describes the growth of residence halls, honors programs, and the "community college baccalaureate," a baccalaureate degree awarded by associate degree-granting institutions in states that have given them the authority to award this degree, as factors that may favorably influence baccalaureate-degree attainment.

The second force influencing baccalaureate attainment and applied baccalaureate degrees is an increasing emphasis on access to higher education for adults. The number of adult learners has grown considerably in all types of higher education institutions due to an economic transition that "has put a premium on an educated workforce" (Chao, DeRocco, & Flynn, 2007, p. 3). As adults become one of the largest groups of students served by higher education institutions, particularly community and technical colleges, states seek to implement policies and services to address their needs (Pusser et al., 2007). Many adult students have incomplete or non-traditional postsecondary records, including non-collegiate credits. They are also likely to participate in applied associate's degree programs designed to prepare students for employment rather than transfer, hence the "terminal" label (Bragg, 2001). Uncertainty about the value of prior postsecondary attendance clouds future prospects, making baccalaureate degrees an uncertain goal.

The third force is the states' interests in improved baccalaureate degree attainment. Offering the opportunity to complete a bachelor's degree to students who have already begun college represents one of the fastest ways to raise baccalaureate attainment rates. Other recommendations include changing delivery models, instituting university centers, adopting online instruction, and strengthening partnerships among public and private institutions. In an effort to increase education in areas such as nursing, education, and other technical fields experiencing worker shortages, some states have begun to offer community college baccalaureate degree programs. To some, these baccalaureate degrees provide an avenue to enhance access for students who are unduly limited in their opportunity to pursue the baccalaureate, whereas others

perceive them as challenging the mission, financial structure, and intent of the traditional higher education system (see, for example, Floyd, Skolnik, & Walker (2005).

The fourth force influencing the state's interests links postsecondary education to improving the workforce and the economy. Pusser et al. (2007) point to the need to educate more adults for the changing labor market, arguing "increasing adult attainment of the baccalaureate degree will produce the highest individual and social returns" (p. 3). They note adults have limited opportunities to pursue higher education because many colleges and universities do not accommodate the complexity of their lives. The National Commission on Adult Literacy (2008) described current policies and practices associated with preparing adults for the workforce as "putting our country in great jeopardy and threatening our nation's standard of living and economic viability" (p. v). The Commission contends an inadequate adult education and workforce preparation system is placing the US at risk and recommends new federal legislation to redefine and reform adult education. The Workforce Investment Act of 1998 (Titles I and II) and Carl D. Perkins Career and Technical Education Improvement Act of 2006 attempt to facilitate college attendance and employment, but these laws fall short of enhancing baccalaureate opportunities for adult learners.

The Adult Learner and Applied Baccalaureate project sought to document adoption of applied baccalaureate degree programs by the 50 states and understand the complex forces that impact the development of the applied baccalaureate degree programs within various types of higher education institutions. Conducted between September, 2007, and August, 2008, phase one of the project sought information about applied baccalaureate degree programs awarded by two-year institutions, including community and technical colleges and two-year branch campuses of four-year schools, which we refer to as "associate degree-granting institutions", and four-year colleges and universities, which we refer to as "traditional baccalaureate degree-granting institutions."

The 50-State Inventory of Applied Baccalaureate Degree Programs

The 50-state inventory conducted by Townsend, Bragg, and Ruud (2008) examined the current status of applied baccalaureate programs in the US, laying the foundation for this policy brief. (For a full discussion of the 50-state inventory, readers are encouraged to obtain a copy of the 2008 *Adult Learner and the Applied Baccalaureate: National and State-by-State Inventory* by Townsend, Bragg, and Ruud.) This report offers a definition of the applied baccalaureate degree, specifying that the applied baccalaureate 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 technical knowledge and skills so desired in today's job market" (p. 9).

Within associate degree-granting institutions, the applied baccalaureate is sometimes associated with the community college baccalaureate or CCB (Floyd, Skolnik, & Walker, 2005). The CCB degree fits our definition of the applied baccalaureate degree when it extends heretofore terminal degree programs to the bachelor's level, typically in occupational-technical fields. We use the phrase *four-year applied baccalaureate* to refer to applied baccalaureate programs that offer two-year college students the option of transferring their applied associate courses or degrees to the applied baccalaureate degree within a traditional baccalaureate degree-granting institution. Applied baccalaureate programs at either the associate degree-granting or traditional baccalaureate degree-granting institutions carry the title of Bachelor of Applied Science (BAS), Bachelor of Applied Arts and Sciences (BAAS), Bachelor of Technology (BT), and similar names. Some states support the idea of extending applied associate curriculum but have chosen to use the Bachelor of Science (BS) degree title rather than create a new degree title. The Baccalaureate of General Studies (BGS) offers another way to extend applied associate degree programs. As we see it then, the primary distinguishing features of the applied baccalaureate awarded by associate degree-granting and traditional baccalaureate degree-granting institutions are not the titles of the degrees but a) its intentionality in creating a baccalaureate level degree option to extend heretofore terminal applied associate curriculum, and b) the type of institution authorizing and conferring the baccalaureate degree.

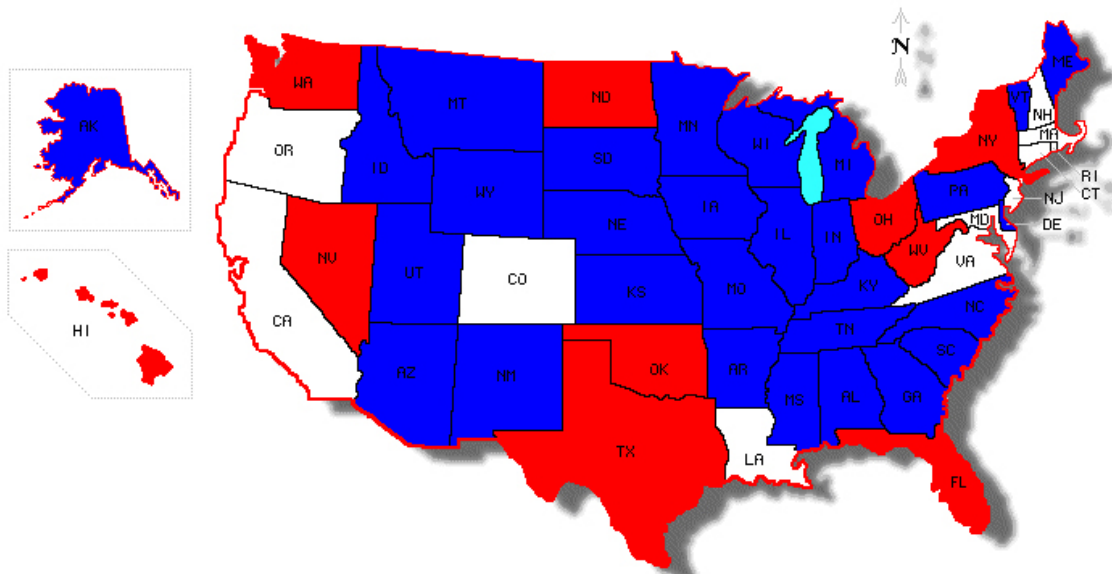
By documenting the status of all 50 states, our results confirm and deepen findings reported by Floyd (2006), Floyd, Skolnik, and Walker (2005), Ignash and Kotun (2005); Seppanen, Bloomer, and Thompson (2005); and Townsend (2004). The results provide greater understanding of the scope and scale of applied baccalaureate degree programs throughout the US. When looking at both the associate degree-granting and traditional baccalaureate degree-granting institutions in all 50 states, we found applied baccalaureate degrees are offered in public higher education institutions in 39 states (78%) (See Map 1 below). Of these 39, 29 states (shaded blue) offer the applied baccalaureate degree at traditional baccalaureate degree-granting institutions only. Ten states (shaded red) have associate degree-granting institutions offering applied baccalaureate degrees. Eleven states (shaded white) offer no applied baccalaureate degrees fitting our definition at either institutional level.

Factors Contributing to the Adoption of the Applied Baccalaureate

Mechanisms for initiating applied baccalaureate degrees at either institutional level vary within the states, although a few patterns emerged in our 50-state inventory data. Often, state officials pointed to the active role of one or a small group of higher education leaders who advocated for applied baccalaureate degrees. Advocacy by a few was sometimes joined by an elected official

Map 1: Applied Baccalaureate in the Public Sector

- - Traditional Baccalaureate Degree-Granting Institutions Only
- - Both Associate Degree-Granting and Traditional Baccalaureate Degree-Granting Institutions



NOTES:
The Adult Learner and the Applied Baccalaureate (Townsend, Bragg, & Ruud)

holding similar concerns about access to the baccalaureate or the vitality of the economy. In these cases, state agencies seek to balance the interests of the advocates with the interests of the larger educational system and the public at large. By gathering input from practitioners, policy leaders, and other interested stakeholders, state officials attempted to compile a comprehensive picture of the higher education system and the ways in which the system would change if alternative baccalaureate options were introduced. Frequently, state agencies engaged practitioners in task forces and hearings, and in a few cases, they worked closely with members of the state legislature to pass authorizing laws and appropriation bills. This last step of moving applied baccalaureate degrees into the legislative arena was associated mostly with the applied baccalaureates awarded by associate-degree granting institutions, and in particular applied degrees conferred by associate-degree granting institutions independent of state higher education systems, including two-year branch campuses of university systems.

State officials identified a range of factors that prompted the adoption of applied baccalaureate degrees. We observed that the more institutions offering applied baccalaureates within a state, the more multifaceted the rationale for adoption. Officials of states having one or two institutions with applied baccalaureates, representing 16 of the 39 states (41 percent) offering the degree, gave reasons for applied baccalaureate programs that are tied to particular institutional or curricular needs, and some also mentioned the importance of addressing labor market needs. These state officials indicated that one or two institutions in their state pursued the degree to address an employment sector that faced serious economic challenges, including occupations associated with business, education, health care, public safety, and various industrial, computer and engineering technology fields (see Table 1). In many of these states, applied baccalaureate programs fill niche employment needs, because they are small, highly specialized, and uniquely positioned to address labor force needs.

Table 1
States by Institutional Type and Number of Institutions Offering Applied Baccalaureate Degree Programs

Institution Type	1-2 Institutions	3-6 Institutions	7 or more Institutions
Traditional Baccalaureate Degree-Granting Institution	Alabama (1) Alaska (1) Delaware (1) Mississippi (1) North Carolina (1) Pennsylvania (1) Tennessee (1) Utah (1) Vermont (1) Wyoming (1) Maine (2) Nebraska (2) New Mexico (2) South Dakota (2) Wisconsin (2)	Idaho (3) Indiana (3) Iowa (3) Kansas (3) Michigan (3) South Carolina (3) Arkansas (4) Arizona (4) Missouri (5) Montana (5)	Minnesota (7) Kentucky (8) Georgia (10) Illinois (11)
Both Institutional Levels	Hawaii ▪ Assoc-degree - 1 ▪ T-Bacc-degree - 1	New York ▪ Assoc-degree - 1 ▪ T-Bacc-degree - 3 Nevada ▪ Assoc-degree - 3 ▪ T-Bacc-degree - 1 North Dakota ▪ Assoc-degree - 1 ▪ T-Bacc-degree - 3 Ohio ▪ Assoc-degree - 2 ▪ T-Bacc-degree - 4 West Virginia ▪ Assoc-degree - 1 ▪ T-Bacc-degree - 4	Florida ▪ Assoc-degree - 9 ▪ T-Bacc-degree - 2 Oklahoma ▪ Assoc-degree - 2 ▪ T-Bacc-degree - 8 Texas ▪ Assoc-degree - 15 ▪ T-Bacc-degree - 3 Washington ▪ Assoc-degree - 4 ▪ T-Bacc degree - 4

Note: “Assoc-degree” stands for associate-degree granting institution, “T-Bacc-degree” stands for Traditional baccalaureate-degree granting institution.

Another contributing factor to the adoption of applied baccalaureates among states having a larger number of institutions with these programs is the need to provide curricular options to help students, especially adult learners, advance to the bachelor's level in their chosen occupation, either for promotion in the technical specialization or for advancement into supervisory and management positions. This motive relates to the recognition that many working-age adults have accumulated college credits but have limited ways to capitalize on them to earn a bachelor's degree. Oklahoma's four-year institutions and two branch campuses of Oklahoma State University exemplify this perspective by offering numerous supervisory and managerial applied baccalaureate degree options. Thinking even more broadly about options for baccalaureate completion, the state of Kentucky requires that its traditional baccalaureate degree-granting institutions offer baccalaureate completion degrees for any associate degree holder in the state, including individuals with applied associate degrees, usually through Bachelors of General Studies (BGS) programs.

Moreover, we observed when more higher education institutions in a state are involved in awarding the applied baccalaureate degree, the state's rationale shifts from institutional needs to larger and more systemic educational and economic concerns. As an example, North Dakota created applied baccalaureate degrees at one associate degree-granting institution and at three traditional baccalaureate degree-granting institutions to respond to projections that the number of baccalaureate degree holders within the state would decline by 30% between 2000 and 2017. Bismarck State College's energy management is part of a larger strategy to offer technical degree programs to increase access to the baccalaureate and enhance the state's workforce. Similarly, the state of Michigan has generated a number of reports about the need to enhance baccalaureate attainment. Calling for fewer barriers for adults who desire a baccalaureate degree, state officials and higher education leaders are considering whether to add applied baccalaureate degrees at the associate degree-granting institutional level to supplement the three traditional baccalaureate degree-granting institutions already awarding the degrees. In yet another state, Washington, the state legislature passed a law authorizing community colleges to offer pilot programs having the stated goal of enhancing opportunities for adults to access baccalaureate degrees. To this end, Seppanen, Bloomer and Thompson (2005) observed that "bachelor's degree pathways for technical associate degree graduates need to expand from the current 10 percent of graduates transferring to 30 percent transferring [to the baccalaureate level]" (p. 1).

Some state officials attributed applied baccalaureate degree programs to the need to enroll a growing population of adult and non-traditional learners who have unique circumstances that make attendance at a traditional baccalaureate degree-granting institution challenging, if not impossible. They spoke about non-traditional students who are older than traditional college age, who are working part- or full-time, and who have family responsibilities that limit their ability to travel or relocate to attend college, paralleling findings about non-traditional adults reported by Pusser et al. (2007). In states where applied baccalaureate degrees are offered

by associate degree-granting institutions and in states where most traditional baccalaureate degree-granting institutions in the state's higher education system are involved, meeting the needs of "place-bound" students is an articulated priority. It should be noted, however, that few state officials described applied baccalaureates as targeting adult learners exclusively, preferring to see adults as a student audience that is uniquely positioned to benefit.

Another factor mentioned by state officials was the need to enhance transfer, supporting assertions of Townsend (2007) and Wellman (2004) about the importance of transfer to baccalaureate attainment. Minnesota's associate of applied science is an example of a degree that is "not typically designed to transfer... but may be accepted in transfer to a related baccalaureate program when articulation agreements exist between participating colleges and universities" (see <http://www.mntransfer.org/transfer/policies/programs.html>). Similarly, Kansas linked the development of applied baccalaureates at traditional baccalaureate degree-granting institutions to an increased emphasis on statewide transfer policy, including addressing concerns for students enrolled in terminal associate degree programs offered by technical colleges. This factor, coupled with pressures from employers to address workforce shortages, led to applied baccalaureate degrees offered by three traditional baccalaureate degree-granting institutions. Ohio's new 10-year strategic plan for higher education supports enhanced articulation and transfer by indicating that "high-quality associate and bachelor's degrees in core fields will be made available at a University System of Ohio campus within 30 miles of every Ohioan, utilizing the existing infrastructure of community colleges and regional campuses" (Ohio Board of Regents, 2008, p. 10). A state official from Arizona also cited transfer as a contributing factor to the applied baccalaureate, but in an entirely different way than Kansas or Ohio. This official lauded the Arizona's transfer policies, indicating that applied baccalaureates at traditional baccalaureate degree-granting institutions are an outgrowth of a well-established transfer system. In this case, rather than point to applied baccalaureates addressing transfer problems, they are purported to enhance an already highly effective statewide transfer system.

In some states an increased demand for transfer resulted from restructuring the higher education system, and applied baccalaureate programs were an outgrowth of these efforts. In Montana, for example, the University of Montana system identified a demand for transfer of applied associate degrees after merging with Colleges of Technology, two-year extension programs with K-12 districts. Colleges of Technology campuses located nearby traditional baccalaureate degree-granting institutions worked jointly to develop programs that soon encouraged the four-year institutions to offer transfer opportunities to applied associate's degree holders. A similar situation happened in Arkansas: when some technical colleges merged with traditional baccalaureate degree-granting institutions, proposals for applied baccalaureate degrees followed soon thereafter. Interestingly, one of the earliest examples of an associate degree-granting institution offering an applied baccalaureate was in Arkansas. Eventually, however, the institution was changed into a traditional baccalaureate degree-granting school.

A related factor that contributes to the adoption of applied baccalaureates at either institutional level is the higher education mission, infrastructure, and capacity within a state. In several states, the existing institutions have played an important role in determining whether an expansion of applied baccalaureate degrees makes sense. States such as Florida, Washington, and Texas have pointed to difficulties in meeting the needs of a growing number of adult and non-traditional students who have had limited opportunities for baccalaureate completion. All three of these states have scaled up baccalaureate attainment by adopting applied baccalaureate degree initiatives at the associate degree-granting institution level. The legislature in Texas and Washington has authorized three or four community colleges to develop pilot programs offering applied baccalaureates. Texas recently removed the pilot program designation, allowing associate degree-granting institutions to award applied baccalaureates as long as they meet state requirements. The most extensive activity associated with higher education restructuring is occurring in Florida. Since Florida's community colleges were initially approved in 2001 to submit proposals to offer baccalaureate degrees, Florida's bachelor's degree programs in community colleges have grown to 71 programs offered in 10 colleges, as of 2008. Legislation this same year resulted in the establishment of the Florida College System and the State Pilot College Project. The Florida College System Task Force and college presidents/representatives from the nine colleges that comprise the State College Pilot Project are currently working to issue recommendations regarding the transition of community colleges to baccalaureate-granting community colleges. Final reports and recommendations will be presented to state officials and the State Board of Education for consideration in 2009.

Finally, states without applied baccalaureates provide insights into factors contributing to the adoption of applied baccalaureate programs. Some state officials cautioned against the creation of a new terminal degree, this time at the bachelor's level, and questioned the integrity of an applied baccalaureate degree and its meaning in the workplace. However, most officials in states without the degree contended that their states made deliberate decisions to resist new baccalaureate degree options and address the baccalaureate gap by maximizing the existing higher education system and longstanding relationships between associate degree-granting and traditional baccalaureate degree-granting institutions. To this end, several state officials mentioned the importance of higher education centers or university centers built on partnerships that maximize institutional resources at both levels. An example of this perspective is in Virginia, where a state official described the applied baccalaureate as having "no foothold." In this state, higher education centers are thought to satisfy the need for the baccalaureate degree, including in underserved areas where students are place-bound, primarily rural southern and western regions. These degree programs allow students at associate degree-granting institutions to enter with a specific baccalaureate degree in mind in fields such as nursing, business, education, and technology as well as in specialized programs (e.g., Motorsports Technology) and to take classes offered by the community college and the university partner without leaving the community college campus. Partnerships between associate degree-granting and traditional baccalaureate degree-granting institutions also resulted in online curricula providing credit toward applied baccalaureate degrees.

Implications for Policy and Practice

Given the growth in applied baccalaureate degrees, we conclude further implementation is likely. Documented in our 50-state inventory (see again Townsend, Bragg, & Ruud, 2008), the applied baccalaureate first emerged in three public traditional baccalaureate degree-granting institutions in the 1970s. Six states were added in the decade of the 1980s, and nine more states came on board in the 1990s, especially at the traditional baccalaureate degree-granting institutional level. Since the turn of the 21st century, fifteen states have begun offering the programs, with several awarding the applied baccalaureate at both institutional levels. Our interviews with state officials indicate at least four other states have introduced legislation, convened task forces, or conducted hearings to gather information about the applied baccalaureate degree at associate degree-granting institutions, and a few other states are considering the applied baccalaureate at traditional baccalaureate degree-granting institutions, which continues to be the most prevalent approach to the applied baccalaureate degree.

For many states and higher education institutions, our 50-state inventory suggests that the applied baccalaureate offers a means of reaching a diversity of underserved learners, including but not solely limited to adults, and supporting students' enrollments in baccalaureate-level, occupational-technical degree programs. State and institutional rationales often emphasized the importance of using applied baccalaureate degrees to address workforce and economic needs. This perspective aligns with a recommendation made by Voorhees and Lingenfelter (2003) for states to adopt policy and policy frameworks that assist them in adopting comprehensive programs for adults returning to higher education. Evidence collected from our study shows that the applied baccalaureate represents a viable option to reaching adult learners and encouraging their participation in higher education to meet individual and larger systemic educational and economic needs.

Year Two of the *Adult Learner and Applied Baccalaureate* project is focused on collecting data to further explore factors that contribute to the adoption of applied baccalaureates, to examine policy and program implementation at the state and local levels, and assess the status of student-level data systems in states implementing applied baccalaureate degree programs. These data are needed to deepen knowledge of the applied baccalaureate and contemplate its potential for implementation in more states and communities throughout the nation.

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