



UNIVERSITY SYSTEM OF GEORGIA

College 2025 Report

**Adaptability, Essential Skills, Lifelong
Learning & Partnerships**

*Chancellor Steve Wrigley
Aug. 14, 2018*

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I. Opening Statement

Public higher education has traditionally represented a path toward advancement for states and their citizens. However, in recent years, many have raised questions about its cost and mission. While an essential public good, new forms of instruction and student learning are challenging long-held views of public higher education as it faces disruption from economic and technological forces.

To be successful, institutions must maintain both cost affordability and academic quality while preparing graduates for the workforce and to be productive members of their communities. The College 2025 Initiative, launched by USG Chancellor Steve Wrigley in May 2017, aims to create a road map for Georgia's public universities and colleges to address those concerns and offer a path toward real solutions.

As part of the College 2025 Initiative, Chancellor Wrigley created a committee tasked with developing an academic plan. This plan will help the USG and its institutions build on existing strengths that include institutional sectors, individual campus identities and missions, faculty expertise and the collaborative strength of the System to act as a single educational entity. The committee's plan will inform future direction within our state public higher education system, allowing Georgia to maintain its position as a state that is responsive to the educational needs of all its citizens.

To be clear, this document is a guide, not a prescription, recognizing the uniqueness every USG campus brings to this state. It is incumbent upon individual institutions and the USG to be agile, nimble and resilient whatever the future holds.

II. Charge to the Committee

College 2025 “will shape the future direction of our state’s public higher education system, enabling Georgia to continue to innovate to serve the educational needs of its citizens. College 2025 will provide a forum to plan how USG institutions can build a strong talent pipeline for the state’s economy; preparing graduates for a lifetime of learning while also providing the skills and knowledge necessary for the high-demand careers of today”

July 28, 2017 — Communication to presidents from Dr. Tristan Denley, USG Executive Vice Chancellor & Chief Academic Officer.

III. The College 2025 Committee

- Dr. Tristan Denley, USG Executive Vice Chancellor and Chief Academic Officer, provided support.
- Dr. Steve M. Dorman, President of Georgia College & State University, served as the committee's chairman.

College 2025 Committee Members:

- Bird Blitch, co-founder and CEO, Patientco
- Merri Brantley, Director of Government Affairs, Georgia Gwinnett College
- Stuart Countess, chief administrative officer, Kia Motors Manufacturing Georgia
- Dr. Kevin Demmitt, Provost and Vice President for Academic Affairs, Clayton State University
- Dr. Elizabeth F. Desnoyers-Colas, associate professor, Armstrong State University
- Cynde Dickey, co-owner and operator, Dickey Farms.
- Sarah Dillard, student, Savannah State University
- Maurice Gibson, director of human resources, AT&T
- Brian Haugabrook, Chief Information Officer, Valdosta State University
- Dr. Paul Jones, President, Fort Valley State University
- Dr. Scot Lingrell, Vice President for Student Affairs and Enrollment management, University of West Georgia

- Dr. Debra Matthews, Associate Dean for Undergraduate Studies, Middle Georgia State University
- Dr. W. Bede Mitchell, Dean of the Library and university librarian, Georgia Southern University
- Dr. G.P. “Bud” Peterson, President, Georgia Institute of Technology
- Dr. Timothy M. Renick, Sr. Vice President for Student Success and Professor, Georgia State University
- Dr. Rahul Shrivastav, Vice President for Instruction, University of Georgia
- Dr. Beverly Sparks, member, Abraham Baldwin Agriculture College Foundation Board of Trustees
- Dr. Wendy Turner, professor of history, Augusta University
- Dr. Anissa Lokey Vega, assistant professor of instructional technology, Kennesaw State University
- Dr. Margaret Venable, President, Dalton State College

IV. Findings

The future is unknown and to try to predict what it will be like can be a difficult task. This project was an effort to suggest a way of thinking and some direction that might provide USG institutions with an opportunity to equip our graduates for an ever-changing and often uncertain future.

With this in mind, our committee recommends all colleges and universities become more adaptable in their approach to higher education. This includes rethinking our practices, curriculum and processes, particularly as it relates to technology and data.

Secondly, our committee recommends USG institutions have a plan and process employed to ensure that all students are exposed to essential skills that employers seek of our graduates.

Thirdly, our committee recommends all institutions develop robust lifelong learning activities and programs that can be incorporated throughout a lifetime and career, realizing that knowledge is ever increasing and that the jobs of the future may demand additional education.

Finally, our committee recommends all USG institutions reach out and create greater partnerships with other learning institutions, corporations, business, industry, professional societies and others. The future of higher education is dependent upon us finding meaningful partnerships that will support and enhance our work.

V. Executive Summary

This is forward thinking work, a roadmap for ourselves about how to be nimbler and more efficient. The College 2025 committee has identified more than two dozen recommendations among the broad themes of adaptability, essential skills, lifelong learning and partnerships. While meant to be a guide, it is an expectation that the University System and its institutions consider these recommendations seriously:

Adaptability

Colleges and universities are often at the forefront of new thinking and ideas but lag in the adaptation of techniques that can better help all students achieve. To be relevant in the future, colleges and universities must become nimbler and more flexible in ways that will allow more students to achieve their goal of a college degree.

Recommendations:

- Developing and adopting new degree formats that take advantage of online, hybrid, competency based and face-to-face formats in more fluid ways and the infrastructure to support them.
- Increasing the number of entry points for admission and course study.
- Developing alternative financial models and the policy structure that would enable these new pricing structures and models.

- Enabling faculty to use instructional technology to enable more personalized and engaging learning experiences in all learning modalities.
- Broadening the utilization of cost effective and free educational resources created using the principles of Universal Design.
- Enabling the scaling of active-learning educational opportunities built into the structure of degree programs.
- Enabling and developing the broader utilization of predictive analytics tools and artificial intelligence agents as part of the student experience.
- Creating the policy and procedural structures and the technology infrastructure that would enable degrees to be constructed and amended in a more agile fashion.

Essential Skills

Business and industry leaders continue to call upon higher education to produce graduates not only with knowledge about a discipline area, but also a graduate with essential or soft skills such as the ability to work in teams, the ability to think creatively, the ability to solve complex problems and the ability to function well in diverse situations. In addition, the future is sure to demand diverse skills as automation takes over much of manufacturing processes. Colleges and universities, therefore, need to be on the cutting edge of curriculum and programming design to ensure students have the most useful skills for this new economy.

Recommendations:

- Engaging in an ongoing dialogue with community businesses, state and national industry at both the system and institutional level to connect real-world expectations with academic practice.
- Undertaking curricular innovation and reform to ensure these real-world expectations are integrated across all programs of study.
- Ensuring that students are equipped with the ability to work within their discipline in concert with technology and in diverse multi-disciplinary teams.
- Ensuring that students are taught to employ the viewpoint of their disciplinary training in innovative and creative ways.
- Creating a comprehensive record of student learning that accurately and completely documents student mastery and learning.
- Mapping and analyzing the academic genome of the system core curriculum.

Lifelong Learning

Colleges and universities must expand academic opportunities for people in all stages and ages of life in recognition of constantly changing requirements for new job skills and workforce development.

Recommendations:

- Creating a new kind of life-learning record that has the portability to enable it to move through each student's learning journey and the security and dependability to ensure that it is an immutable record of learning.

- Creating mechanisms that allow students to easily re-enter and re-commence their studies at various periods throughout their lives.
- Developing short-term and stackable credentials that can be transcribed and widely accepted by employers.
- Creating policies that more seamlessly and more dependably enable the transfer and transcription of credits across institutions.
- Encouraging the introduction of tenure and promotion guideline elements that more effectively recognize quality of teaching and initiatives that impact student success and completion.
- Providing training and professional development to refine the quality of instruction as part of faculty career paths and graduate training.
- Enhancing institutional abilities to more effectively collect, analyze and utilize data analysis and predictive analytics make data-informed strategic decisions.
- Each USG institution should have a “futures” task force that engages in institutional far-future-oriented strategic planning and visioning.

Partnerships

To a great extent colleges and universities have stood alone in the educational process. The future will demand that colleges and university develop robust partnerships to fulfill their missions. Colleges and universities need to expand relationships with outside groups that can help further goals toward student retention and attainment.

Recommendations:

- Encouraging the creation of nexus degree programs at USG institutions.
- Expanding student opportunities for experiential learning with industry, using an apprenticeship model as a guide.
- Developing business and industry partnerships that support the educational agenda.
- Employing systemness and collective impact techniques to create a statewide coordinated educational ecosystem.

VI. Detailed Recommendations

College 2025 aims to help the USG and USG institutions build a strong talent pipeline for the state’s economy and prepare graduates for a lifetime of learning, while also providing them skills and knowledge for the high-demand careers of today and the future.

With this in mind, the committee identified four overriding themes that must guide the USG and USG institutions as they look toward the future: Adaptability, Essential Skills, Lifelong Learning and Partnerships.

These resulting themes set the foundation for the committee’s recommendations. The committee additionally recognized the need for separate overarching recommendations to facilitate advancement of these themes for students, institutions and the USG moving forward.

1. Adaptability

Accessibility Innovation Personalization Flexibility Adaptability Responsiveness

Recognizing the acceleration of change in economic, social and global demands, USG is committed to agility by empowering its graduates to be adaptable through personalized learning experiences co-designed with learners and experts, facilitated by a flexible network of universities and colleges and informed by stakeholders.

The University System will anticipate and respond to the needs of students, communities, the workforce and the global society.

The college going population has undergone considerable change over the past few decades. Present data suggests that the pace of this change will not diminish over the next decade. While the populations of students who comprise our student bodies have changed significantly, to a large degree the format and structure of higher education has stayed relatively static. To continue to effectively meet the educational needs of the state, we foresee that in the coming decade there will be significant need for new types of learning structures that more readily meet the life patterns of current students, whilst also opening new possibilities for possible learners who are not involved in current higher education because current degree structures and delivery methods conflict with rather than help them overcome the constraints imposed by their lives.

Why It Matters

The University System's mission is to create a more educated Georgia. Census data from 2015 indicate that 21 percent of working age Georgians — well over a million people — indicate that they have some college, but no degree or credential. Studies from Georgetown Center on Education and the Workforce (Carnevale, Smith and Strohl, 2013) and others, suggest that to meet the needs of the future economy more than two-thirds of the adults in Georgia will require some formal post-secondary credential — yet only 47 percent currently meets this requirement. Indeed, this future is already partially with us. During the recovery after the Great Recession, nationwide

11.6 million jobs were created (Georgetown University Center on Education and the Workforce). But 11.5 million of them, or 99 percent, went to workers with at least some postsecondary education. And workers with a bachelor's degree fared the best of all, with 8.4 million of those jobs going to them.

That said, statewide forecasts for future high-school graduating classes are essentially flat over the next decade, according to USG projections based on Census data. For Georgia to reach the educational levels needed to satisfy these economic demands will be impossible without being able to re-engage adults with some or no college. However, national data makes it clear that this level of re-engagement will be impossible without the development of new degree delivery models that more readily conform to the lives of working adults with families. During the research for this report, one employer pointed out that while they offer their workforce considerable ongoing educational benefits, there are logistical challenges to their use. The work pattern in that industry means that work schedules change on a monthly basis. Consequently, any timetabled college learning experience which fits a work schedule at the beginning of a semester will most likely cease to fit a few weeks later. Practical constraints such as these compounded by the demands of family life demand more adaptable and flexible learning modalities. We foresee the development of new degree formats that take advantage of online, hybrid, competency based and face-to-face formats, but combine them in more fluid ways. These new formats should also build in some degree of elasticity in ways that would allow a student to work ahead when time is available, and modify deadlines when life-demands require.

Increased Entry Points

Recognizing an impetus to expand access points for students in underserved markets, there will be a need to allow student to commence their study at more calendar opportunities than our current fall, spring and summer enrollment points. This may entail having a series of semesters that begin monthly, weekly or even daily and a continuously available admissions process, or simply the ability for a student to enroll and begin a particular class that is needed on a more on-demand basis. USG institutions will need to increase the availability of program and course enrollment to allow students to enroll beyond just the start of fall/spring semesters. To enable the implementation of these more flexible calendar offerings will require the USG to create the policy procedure structures that allow these options. No less important will be developing and adapting the enterprise class technology platforms to support enrollment management, admissions, financial aid and learning management in these new formats.

Degree Structure

We foresee an increasing role for the curriculum of degree programs to be more nimbly constructed. The present degree approval structure, both on campus and at the System level, hampers institutional abilities to design new degrees, and curate existing offerings, that meet the rapidly changing needs of a 21st -century economy. There is also a limited ability for the USG to effectively coordinate degree offerings in ways that ensure that the menu of degrees in each region meets the needs of that region.

Instead there is a need to create the policy and procedural structures and the technology infrastructure that would enable degrees to be constructed and amended in a more agile fashion, while still ensuring the necessary academic faculty oversight and maintenance of rigorous educational standards.

Cost and Affordability

The pricing structure of American higher education has remained relatively unchanged for considerable time, with costs primarily linked with a seat-time-based hourly charge. It is a USG system priority to deliver high-quality higher educational experiences at as cost-effective a rate as possible, and work is ongoing to identify ways in which the cost-curve of education can be bent. While there will be an ongoing role for this pricing structure for many students, we also see the current per-credit-hour model as stifling innovation that could further improve the degree price-point for other delivery models and student populations. We foresee the development of alternative financial models and, incumbent on this, the development of a policy structure that would enable these new pricing structures and models to flourish. An important aspect of this work will be an active and vigilant role in controlling instructional costs. Over the last 40 years, the cost of textbooks has increased at roughly three times the rate of general consumer prices, so that now the price of instructional materials is a sizeable part of the cost of higher-education attendance and a significant barrier to the success of many students. The USG has already been a national leader in enabling and supporting the adoption of open educational materials. Indeed, through a coordinated effort in online education, all texts for eCore

classes are already completely free. We foresee these efforts increasing over the coming years, so that through a matrix of faculty created and curated materials, free texts and System-wide partnerships with major publishers, the costs of textbooks will be dramatically reduced across all USG degrees and completely eliminated for some degrees.

Accessibility

Just as degree modalities and structures will be developed to meet the needs of different lifestyles, instructional materials will be developed to meet the needs of an ever-widening array of learners. In the past, students with disabilities in higher education have generally been held responsible for requesting auxiliary aids or suitable accommodations that enable them to have an opportunity to participate in or benefit from the institution's educational offerings. The Center for Accessible Materials Innovation (CAMI) at Georgia Tech helps institutions serving students with print-related disabilities gain access to electronic versions of textbooks with speech-to-text assistive technology that creates a variety of text formats that are readable by accessible e-readers. In the future, rather than accommodating or adapting existing inaccessible instructional materials, courses and learning experiences will increasingly be designed to be accessible from the start. By employing the principles of *Universal Design*, instructional resources and experiences can be created to make more materials more available to more students more often. These changes do not only provide advantage to students with disabilities, but rather to the whole community by providing captioned video and audio as materials that are more easily searchable.

Learning Flexibility

Just as there is a need to continuously curate more nimbly structured degrees, so too there are enormous opportunities developing to enable the learning environment itself to be flexible in ways that have not been available in the past. In recent years a variety of computer-enabled learning tools have been developed to enhance learning in fields from mathematics to psychology. These technology-enabled learning platforms, which incorporate predictive analytics technologies, provide instant and personalized feedback to students who are attempting to master new skills or knowledge sets. These tools can provide invaluable real-time progress information to students and faculty, while increasingly also using insights from learning science to tailor the presentation of the instructional material, as well as the assessment elements, to the individual learner. These technologies also provide tools and vehicles for instructors to intervene when students are unduly challenged by material. As yet these computer aided learning tools have largely remained in the science and social science fields, but we foresee a steady increase in the use of such adaptive learning platforms and artificially intelligent agents across the full spectrum of subjects in the coming years. Learning technologies also open opportunities for collaborative learning in ways that have not been practicable in the past. Already, digital document readers allow instructors and students to annotate the text and to share their notes with others in the class. Similarly, students can engage other members of the group or ask questions of the instructor as they are reading the text. These more dynamic ways to engage with texts will open the possibility of new kinds of

classroom learning structures that more effectively utilize face-to-face classroom time.

In the past assessed materials in most classes have been limited to written papers or text-based tasks. While text-based work products will surely remain a mainstay educational vehicle, today's technologies make tools for the creation of a wide array of digital media readily available in ways that can be easily shared amongst a group. The evolving elegance of digital media creation will enable a wider variety of gradable and assessable work for individual students, while also creating a broader set of possibilities for student collaboration. We foresee that, in the future, instructors will use instructional technology to enable more personalized and engaging learning experiences in all learning modalities.

Instructors will be increasingly informed by data-powered technologies that recognize when student learning has stalled, enabling the instructor to quickly identify deficits of understanding and suitable instruction to meet those needs.

Course Structure and Learning Opportunities

The changes in the classroom will not be limited to the use of technology. There has been significant recent progress over the last decade in recognizing ways in which course sequence and structure affects successful learning. This has been most significant in the realm of transforming developmental education. There, success rates in introductory mathematics and English classes have been more than doubled by moving to the just-in-

time remediation structure of the co-requisite model rather than the traditional developmental education sequence. While there are limits to the applicability of this model, in the future analogous parallel support will be applied to other pivotal courses.

Over the last 25 years there has been a steadily increasing awareness of the ways in which certain pedagogies have links to deepened learning and improved educational outcomes. These High-Impact Practices (HIPs) such as study abroad, service learning and undergraduate research and internships have for the most part, however, remained optional extras that are only available to the most motivated students. We foresee that in the coming decade these pedagogies that provide active-learning opportunities as well as opportunities to apply otherwise solely theoretical will be increasingly built into the structure of degree programs. To scale these formerly boutique experiences will require more careful analysis of the essential features of the learning experience and a more deliberate approach to strategically interweaving these and other active learning pedagogies into the overall curriculum. It will also require new thinking about physical and virtual classroom infrastructure.

Data and Intervention

The use of data-informed technology will not be limited to the classroom. A growing body of research shows that big-data-informed advising tools have significantly increased retention progression and graduation rates at participating institutions, while also cutting the achievement gap for low-income and minority students. Predictive analytic techniques allow a shift

from a retrospective-reporting data-stance toward the use of large data sets to make detailed predictions about the future. These predictive models enable strategic action to be taken in the present to potentially provide significant improvements in the future. Increasingly, institutions are bringing these predictive techniques to bear by using this information to tailor course scheduling capacities to actual student course needs.

Institutions also use these techniques to provide personalized information to inform advising. In the past, campuses have targeted interventions at various sub-populations, designing specific initiatives for each group of students. These techniques allow institutions to analyze the specific needs of each student and how those needs can be met by various campus interventions. Important in this work is making this information available in an actionable fashion to the student and also to faculty and staff who work directly with the student. Georgia State University has set a national example in this area (Association of Governing Boards of Universities and Colleges, [Innovation in Higher Education Case Study](#), 2017-18). Pioneering development and implementation of such tools at Austin Peay State University, Arizona State University, Florida State University and the University of Hawaii have also shown the possible impact of this style of technology when it is combined with on-campus initiatives. As yet these tools have been developed with a variety of somewhat independent functionalities that often do not readily interface with one another. We foresee in the future these tools becoming a standard part of not only the advising experience but informing every aspect of the student's educational journey. Just as important, however, will be the technology platforms that will knit future developments together as a comprehensive enterprise-class suite of information tools.

Primarily, this work has not been an attempt to automate the advising function, but rather to empower it. This new approach to advising, which marries insights from detailed data-analysis with behavioral economics and choice architecture research to provide detailed, focused and timely information to both student and advisor, can cause a much more nuanced conversation and improve student outcomes. That said, there have been important attempts to introduce artificially-intelligent (AI) agents that can provide standard information to students immediately about questions they have about the broad student experience. Georgia Tech's AI teaching assistant, Jill Watson, is an early example of this phenomenon in the classroom setting (see Case Studies below). Similarly, institutions such as Georgia State, the University of Leeds in the United Kingdom and Australia's University of Adelaide have successfully introduced *chatbot* technology to enable students to obtain immediate answers to financial aid and other admissions-oriented questions.

As the standard comprehension capabilities of AI grow, we foresee the utility and prevalence of these tools growing. The narration capabilities of machine-generated language will increase, and we will see an evolution of these tools from chatbots that can distribute templated responses to natural language queries, to AI that can respond accurately to open ended questions and perhaps even engage in meaningful debate.

Recommendations—Adaptability

USG will achieve this by:

- Developing and adopting new degree formats that take advantage of online, hybrid, competency based and face-to-face formats in more fluid ways and the infrastructure to support them.
- Increasing the number of entry points for admission and course study.
- Developing alternative financial models and the policy structure that would enable these new pricing structures and models.
- Enabling faculty to use instructional technology to enable more personalized and engaging learning experiences in all learning modalities.
- Broadening the utilization of cost effective and free educational resources created using the principles of *Universal Design*.
- Enabling the scaling of active-learning educational opportunities built into the structure of degree programs.
- Enabling and developing the broader utilization of predictive analytics tools and artificial intelligence agents as part of the student experience.
- Creating the policy and procedural structures and the technology infrastructure that would enable degrees to be constructed and amended in a more agile fashion.

Case Studies

- **Georgia State University: Chatbot**

SOURCE: <https://www.wabe.org/georgia-state-uses-a-chatbot-to-attack-summer-melt/>, <https://www.eab.com/daily-briefing/2018/02/20/how-gsu-reduced-summer-melt-by-21-percent>

Georgia State University has employed the use of automated ‘nudges’ to move students forward in the progression and completion of summer course registration. Georgia State officials developed a chatbot designed to help students through the pre-matriculation process of summer pre-registration. The chatbot monitors students’ interaction through the matriculation process and offers tailored messages along the way that encourage students to continue to the next step. GSU leaders report that students developed more proactive tendencies through use of this feature and the summer melt (the number of students who say they are going to enroll but fail to do so) was cut by 21 percent. The chatbot did not take the place of the summer advisors but allowed them to be more efficient and focus in areas where they could be more successful while allowing the chatbots to encourage and interact with the vast majority of the students through automation.

- **Georgia Tech: Jill Watson Chatbot**

SOURCE: <http://www.news.gatech.edu/2017/01/09/jill-watson-round-three>

Fully embracing the advantages of the new digital age to enhance teaching and course work, Georgia Tech used “virtual teaching assistants” in an online course about Artificial Intelligence. In a move which could revolutionize support of college teaching, the virtual teaching assistant called “Jill” was implemented on the IBM Watson platform and was able to answer the most frequently asked questions by students in the course without students knowing the “virtual” nature of their assistant until the end of the course. In a second iteration of the course, the virtual assistant was programmed to comment on things students might mention in their conversation with the assistant, such as their hometown or another course they were taking at Tech. Overall, the professor noted a higher engagement in the course by the students because the virtual TA was able to respond more quickly to their questions and comments. Students taking the course must have been impressed — 40 percent of students built their own chatbots, complete with avatars, during the course.

- **Northern Arizona University: Personalized Learning Degrees**

SOURCE: <http://pl.nau.edu>

Northern Arizona University offers an online, flexible experience for earning a degree through the Personalized Learning program. Regarding itself as different than most online learning offerings, personalized learning features self-paced, competency-based courses which allow learners to progress at a rate of speed to suit their personal life style. The program is built upon competencies already

developed by the learner and is designed to enhance real world learning. Students subscribe to unlimited 6-month intervals that allow them to work toward degrees in management, computer information technology, RN to BSN, small business administration and liberal arts. Graduate degrees are also available.

- **The Open University: (United Kingdom)**

SOURCE: <http://www.openuniversity.edu/>

Billed as the UK's largest academic institution, the Open University has served more than 2 million students worldwide. The Open University is the UK's largest provider of health and social care education and largest provider of law graduates. The Open University offers a wide range of courses and degrees, certificates and diplomas through distance and online learning. The flexibility of the coursework allows students to earn progression forward any time and any place in the world. Because Open University uses the same quality assurance measures as any university in the UK, a degree from the Open University is recognized as equal in academic standing. In the U.S., the Open University is accredited by the Middle States Commission on Higher Education. Over 30,000 businesses have sponsored their employees to take a course through Open University and students have access to the Career Advisory Service, which offers a variety of guidance and advice on career planning.

- **Tennessee Board of Regents: Accessibility Initiative**

SOURCE: <https://www.tbr.edu/student-success/accessibility-initiative>

In response to the recommendations of the Tennessee Higher Education Commission's Accessibility Task Force, the Tennessee Board of Regents began its accessibility initiative in Spring 2015. This system approach to the accessibility of educational content intentionally moved the design principle for instructional materials from accommodatable to universal design. This approach was designed to make more materials more available to more students more often. By undertaking faculty and staff training at scale, the system was able to achieve all course syllabi being accessible from Fall 2017 onwards.

- **University of Georgia: Active Learning Summer Institute**

SOURCE: <https://ovpi.uga.edu/initiatives/active-learning/>

The University of Georgia recently started the Active Learning Summer Institute (ALSI), a cohort-based program where faculty enroll in a six-week course redesign effort to promote adoption of active learning pedagogy. The curriculum includes backwards course design (Wiggins and McTighe), alignment of instructional goals with assessments and learning activities, rubric design, the Transparency in Teaching and learning framework (Winkelmes, et al), session-level lesson planning (BOPPPS model) and Universal Design for Learning, among others. The institute, offered in a six-week intensive format, is expect to impact instruction for over 8,000 students in its the very first year.

2. Essential Skills

Workforce Talent Development Economic Development Critical Thinking Integration

USG commits to fostering demonstrated competencies that include essential skills for 21st-century work.

The University System will prepare students with skills that endure over time and cross the boundaries of traditional discipline-based knowledge. Competencies include teamwork, communication, critical thinking, global perspectives and project management, all of which will prepare students to become productive members of society. The System will also work with strategic partners to identify necessary skills and needs in order to prepare students who are workforce ready, responsible citizens and lifelong learners.

It is clear that there are new aspects of knowledge and skills that are necessary parts of being an educated person in the 21st century. Part of the work that must be undertaken by the USG will be to continually review and revisit the core aspects of the system degree curricula to ensure that those central aspects meet the essential learning needs of the world around us. Indeed, the USG and its constituent universities will need a continued partnership with community businesses and state and national industry and others to ensure that graduates are prepared with relative skills seen as essential.

Carnevale and Smith (2013), writing for the Center of Education and the Workforce at Georgetown University, state that the new knowledge-based economy requires a specific set of knowledge and skills that employers desire for employees to function well into the future. These skills include the basic skills of reading, writing and mathematics, but also include knowing how to learn; communication skills including listening and oral communication; adaptability including problem solving and creative thinking; group effectiveness including interpersonal skills, negotiation and the ability to work in teams; organizational effectiveness and leadership; personal management including self-esteem and goal setting; and resilience (Carnevale & Smith, 2013).

Acquiring and Defining Skills

USG institutions must be vigilant in assuring that graduates from their programs are attaining these skills deemed important by business and industry. Whether it be through curricular reformation or development of extensive rubrics which assess the presence of these skills throughout an existing curriculum, our institutions must with vigilance pursue this goal. This may mean reaching out to local and regional corporate and government partners who are willing to assist with development of these skills in the classroom. It may also mean a reworking of pedagogical approaches to allow for more skill development rather than simply knowledge transfer in coursework.

The nature of work is changing and will continue to change in the near future (Dockweiler, 2018; Jackson, February 16, 2017; Gorsht, 2014; Wells,

2016). In fact, in a recent interview, businessman and entrepreneur Mark Cuban expressed concern that automation of manufacturing and much of industry is going to require a totally different type of individual for the workforce in the future. Cuban said “I personally think there's going to be a greater demand in 10 years for liberal arts majors than there were for programming majors and maybe even engineering, because when the data is all being spit out for you, options are being spit out for you, you need a different perspective in order to have a different view of the data. And so having someone who is more of a freer thinker.”

(Abby Jackson, Business Insider interview, Feb. 17, 2017).

David Autor argues that the increasing use of technology will have a polarizing effect on the labor market. Traditional middle-skills jobs will increasingly become automated. Jobs that require high-levels of situational adaptability, personal interactions and complex motor skills applied creatively will not be replaced by machines. Similarly, jobs that require complex problem-solving, analysis and design skills will be filled by people who are able to employ technology in highly creative and productive ways. Although today's middle-skills jobs may be replaced by automated solutions, many of these jobs will be replaced by jobs in which humans and machines collaborate (Autor 2014, Schmidt, Resnick, & Ito, 2016). Either way, it is the ability to combine knowledge and skill in a creative manner in an adapting environment that is key. The curricula of future higher education will need to focus more fully on ways in which discipline knowledge can be creatively applied in concert with evolving technology tools.

Collaboration

For the most part, today's current higher education educates students to complete tasks as individuals. If they are required to work as part of a group, it is a group of other students from that same discipline area or subject area. Increasingly this is not the way that modern industry works — there the advantages of cognitive diversity to generate and continuously improve solutions to complex problems will become more and more apparent (Scott Page, 2017). Once again, an essential property of future higher education will be to enable graduates to bring the lens of their discipline and training to a group of voices, and collaborate effectively as part of a diverse team.

Practicability

In addition to acquiring these skills, our institutions must provide students with the language to talk with employers about skills they have acquired — to take what they have been taught in the classroom and translate it to the workplace. This ability will bridge the communication gap that may be responsible for the disconnect between business and university on skill development (Craig, 2017). Success in this area will require that colleges and universities spend a greater investment in their career planning and advising units.

A 2014 survey conducted by Ruffalo Noel Levitz found that 47 percent of first-year students wanted career advice immediately upon their entrance into the college and university (Normyle, ruffalonl.com, April 15, 2014). By 2018, this had grown to 67 percent of all entering first-year students (Normyle, ruffalonl.com, March 22, 2018). This signals an increasing need for college-based career planning and advising, as well as an opportunity to create links between post-secondary and k-12 education. To meet the future needs of students in addition to providing robust academic counseling, colleges and universities must also ensure that students have access to career counseling. This level of counseling, in addition to providing advice to students regarding their generalized aptitude and talent for certain career areas, must also provide students with the essential skills needed to apply for a career, such as the development of a resume, access to mock interviews and information about electronic data bases for their career portfolio.

Rethinking Curriculum and Structure

Future curricular innovations and classroom changes must provide opportunities for students to acquire and practice these essential skills. Pedagogical changes like the flipped classroom and better use of technology will allow students to practice and note these skills. In addition, group and team-based projects and enhanced case studies utilizing real corporate and community-based problems will allow students to apply and practice skills applied. Finally, college and university students will need greater involvement in high-impact experiences such as undergraduate research opportunities; leadership experiences; cooperative work assignments,

internships and mentorships with local and regional businesses and industries; and study away and abroad opportunities in order to further embed these skills.

The future will see colleges and universities develop ways to verify that students are gaining these essential skills. While not a new concept, many universities are developing alternative transcripts and/or badges as a means to document and provide proof of skills acquisitions. Still others are using electronic portfolios as a means to capture and authenticate skills. These provide an opportunity for students to curate an enduring record of project or classroom artifacts that demonstrate competencies to potential reviewers of the portfolio.

There has been significant recent work to study how the structure of higher education curricula influences student learning and their overall degree success. By studying the course transcripts of graduates across the System, we have been able to establish which courses in the System's course-curricular structure have a disproportionately sized role in the overall learning structure — successful learning in these classes disproportionately leads to further success, and lack of success in these classes leads to failures elsewhere.

More recent work has suggested that deepened student learning in these essential courses not only further enhances success in that particular class, but success over all across a degree program. Currently, this work has been confined to course-level analysis, but we envision the future opening the possibility of a more granular approach. Mapping the *academic genome*

that establishes the basic learning objects of the System’s core curriculum together with the semantic connections between would allow a deep analysis of those elements of learning that are essential to the improved understanding of later concepts as well as overall success. This mapping will provide the basic building blocks for competency-based education and personalized learning analytics platforms. But, just as the public availability of Google-map data has led to a plethora of unanticipated uses such as Zillow and Yelp, and the mapping of the human genome has allowed medical approaches that are gene-specific , so, too, we anticipate the mapping of the System academic genome to allow future learning innovation.

Recommendations—Essential Skills

USG will achieve this by:

- Engaging in an ongoing dialogue with community businesses, state and national industry at both the system and institutional level to connect real-world expectations with academic practice.
- Undertaking curricular innovation and reform to ensure these real-world expectations are integrated across all programs of study.
- Ensuring that students are equipped with the ability to work within their discipline in concert with technology and in diverse multi-disciplinary teams.
- Ensuring that students are taught to employ the viewpoint of their disciplinary training in innovative and creative ways.

- Creating a comprehensive record of student learning that accurately and completely documents student mastery and learning.
- Mapping and analyzing the academic genome of the system core curriculum.

Case Studies

- **AACRAO – NASPA: Comprehensive Student Record Project**

SOURCE: http://aacrao.matrixdev.net/docs/default-source/default-document-library/comprehensive-student-record-project-final-report-9_2017---pub-version.pdf?sfvrsn=19401bf4_2

A joint project, conducted by the American Association of Collegiate Registrars and Admissions Officers (AACRAO) and NASPA: Association of Student Personnel and funded by the Lumina Foundation, allowed 12 institutions to be involved in the creation of the Comprehensive Student Record Project. This project created an exchange of student records across these campuses in an effort to demonstrate that “a college education is more than that chronological enrollment summary.” An attempt to try to codify students’ co-curricular activities, this project produced several models, some based upon unique aspects of each institution, which might provide templates for other institutions wishing to verify student co-curricular learning.

- **University System of Georgia: Playbook Design**

SOURCE: https://www.usg.edu/economic_development/

The Governor's High Demand Career Initiative Report (2014) brought to the forefront a need in Georgia to increase the capacity of career pathways and thus meet the demand fueled by economic development in the fields of financial technology, information technology, aerospace, film, supply chain management, mechatronics, cybersecurity and health informatics. The University System of Georgia (USG) developed a methodology to systematically analyze talent demand and subsequently align systemwide talent development capacity. The technique is implemented by the System in collaboration with employers' talent managers to address three critical areas: *Employer Value Proposition* (discover and validate talent demand to create opportunities employer value most); *Learner Value Proposition* (discover and validate the pains to be resolved and gains to be realized for our constituents); and *Institution Value Proposition* (align institutional strategies and priorities to grow capacity). In collaboration with the Georgia Department of Economic Development, the Georgia Centers for Innovation, chambers of commerce, USG institutions and multiple employers, the initiative has resulted in a *Talent Development Playbook*. The playbook contains action-oriented recommendations and initiatives for talent development. USG institutions use the playbook to make informed decisions about employer and learner-valued curriculum and credentials. The initiative also includes components to gain talent development insights as well as how to create a framework to prioritize programs and skillsets. Institutions use the framework to revise existing or create new programs, degrees and innovation-driven research.

- **University of Georgia: High Impact Practice**

SOURCE: <https://el.uga.edu/>

All UGA students are required to participate in at least one experiential learning activity while on campus. Experiential learning activities include creative endeavors, study abroad and field schools, internship and leadership opportunities, faculty-mentored research and service-learning. These activities are designed to enhance learning, prepare the student for the world beyond the classroom and encourage persistence to graduation.

- **Georgia College: GC Journeys**

SOURCE: <http://www.gcsu.edu/gcjournays>

Georgia College is ensuring that students experience essential skills through the GC Journeys program, which requires students to participate in five transformative experiences during their time at the college. Students participate in a seminar-style first-year course designed by the university, which introduces them to the concept of the liberal arts and provides practical competencies and helps transition to college elements. Then, students may pick two additional transformative experiences of their own — study abroad, community-based engaged learning, intensive leadership programs, mentored undergraduate research or internships. Students will also be required as one of their transformative experiences to participate in the career milestone project which spans the full undergraduate experience. In this program, students are exposed to career exploration and planning and participate in a variety of practical

career preparation projects such as resume preparation and mock interviews. Finally, a senior capstone serves as the culminating experience and is designed to demonstrate preparedness for the workforce or graduate school.

3. Lifelong Learning

Human Development Continuous Engagement Life Cycle

The rapid pace of discovery and a changing workforce has heightened expectations of being able to access lifelong learning opportunities. The expectations include greater opportunities for personal and professional development as people strive for growth and continuous engagement throughout the lives of its students.

USG will approach lifelong learning by working with strategic partners to access community and societal needs, responding with educational programs that address those needs and encouraging continuing education by being relevant, affordable and accessible.

For the most part, higher education in the past has been an experience that has been delimited in time. Students move from high school into their college years to pursue undergraduate and then perhaps graduate education as a prequel to moving into their career. More recently, this sequence has become much more fluid and we foresee the need for this fluidity increasing over the coming years as citizens face an increasing need for lifelong and “life-wide” learning opportunities.

Every institution of higher education aspires to create *lifelong learners*, but at present, the life of learning that graduates go on to is largely separate from their college institutions. Apart from alumni who return to pursue post-graduate study at the master’s and doctoral level, current graduates

have little educational interaction with their alma mater throughout the rest of their lives. Workers of the future are expected to change not only employer but occupation several times during their working life. Indeed, it is likely that many will find themselves in employment areas that currently do not exist. Consequently, there will be a vibrant ongoing need for graduates at every level to refresh or redirect their skills to continuously prepare for these new employment opportunities, or life stages.

Credentials

This shift will require institutions to transform from a single educational time period model to a lifelong education journey. For example, Stanford d-school has proposed an open-loop style of university study which would encompass six years of instruction spread out over in any way across a person's life (The Future of the Degree, 2017). Regardless of the exact structure, institutions will need to create mechanisms that allow students to easily re-enter and continue their studies at various periods during their lives.

To satisfy this need for life-long learning, institutions will certainly need to explore creating new kinds of credentials that more readily conform with this educational journey, as well as ways in which the structure of current credentials can be nuanced in light of these new learning elements. In February 2018, the USG Board of Regents approved the nexus degree designation for precisely this purpose.

Transcripts

New credentials that are arranged along a new educational journey create the need for a new transcript system to contain this style of learning.

“The purpose of credentials is changing,” said J. Philipp Schmidt, director of learning rethinking at the innovation at the Massachusetts Institute Technology’s Media Lab. “They are moving from a sorting mechanism to a representation of a person’s competency” (Schmidt & Resnick 2016).

In the Essential Skills section, we discussed a need to create a more comprehensive record of student learning that records a more granular reflection of each student’s learning experience, and one that can be viewed from a variety of different vantage points including an employer’s. For lifelong learners, this record will convey a portfolio of learning assets that not only list courses taken but also representations of what the learner actually has gained from the experience. This *open-loop* style of lifelong education will call for a student record that is not only more granular, but also transcends multiple institutions, multiple degrees and multiple life-stages. This will require a new kind of life-learning record that has the portability to enable it to move through each student’s learning journey as well as the security and dependability to ensure that it is an immutable record of that learning (Raths 2016).

Portability

Just as institutions will need to be libraries of life-long learning experiences, so, too, they will need to recognize that deep and meaningful learning can happen apart from their own classrooms. While there will be the need for more seamless and dependable credit transfers, there will also be an increasing need for colleges to be able to assess, accept and transcript such learning through mechanisms such as prior learning assessments in manners that also produce portable and transferrable degree elements that satisfy degree requirements. Indeed students' relationships with universities and colleges is becoming increasingly fluid. Today, roughly one-third of all college students involve more than one higher-education institution in the completion of their degree. This fluidity raises the impetus for policy structures that more seamlessly and more dependably enable the transfer and transcription of credits across institutions.

Just as education will need to be life-long, it will also be life-wide. Institutions will need to explore new kinds of delivery formats to make learning experiences possible across the full width of life. This will entail creating learning platforms and avenues for learning that are outside of traditional degree experiences. Some of these learning experiences may lead to industry certifications or badges that would enable a career advance or redirection, but others may simply be opportunities for those who aspire to deepen their understanding of a major interest, hobby.

Strategic Planning and Data

This report is an attempt to characterize the broad-scale trends that will shape the face of higher education in the coming decade. One of those

trends is the ongoing importance for each institution to make strategic plans that will shape and position their own future in ways that most effectively meet the educational needs of their educational constituency. Part of this ongoing work will be a much greater dependence and reliance on the use and analysis of data. In the past institutional effectiveness data has largely been used in a retrospective fashion, to satisfy ongoing reporting obligation on a state and national level. In the future, while these reporting obligations will remain, there will be an increasing necessity to collect more effective and real-time data streams together with methodologies to use these data in strategic ways. Not least among the uses of data will be analysis of evidence-based educational practices. As we have already observed, there has been considerable recent work recognizing how the structuring and sequencing of education experiences can influence student success and completion and level equity disparities. Just as evidence-based medicine has transformed modern healthcare, this data-informed approach to educational practice will provide further insights to continuously increase statewide educational attainment.

In preparation for this kind of work as well as the ideas put forth in this report, each USG institution should have a “futures” task force to keep it on-task toward embracing future thinking and future talking for the institution. Such a task force can help its institution continually look at future technology, students, pedagogy and needs for the entire campus community. Institutions should create incentive structures to support and reward innovation.

Faculty and Staff

Lastly, while we have largely concentrated here on the ongoing learning-life of students, we would be remiss in not recognizing the need for career-long learning opportunities for faculty and staff. There is a growing body of research that connects deep learning and quality of instruction with increases in student outcomes. “Quite simply, students learn more and fail less when faculty members consult and utilize a large and growing body of research about active teaching methods and make connections with students” (The Future of Undergraduate Education, 2016). That said, the structure of most master’s and doctoral degrees is designed to create graduates who are well trained in the content knowledge of the discipline, but scarcely prepared for the classroom experience of conveying that content to future learners. More than this, the structure of most tenure and promotion guidelines at all styles of institution privilege research output over quality of teaching or involvement with initiatives that impact student success and completion. Already, organizations such as Transforming Post-Secondary Mathematics (TPSE) Math (Transforming Post-Secondary Mathematics, 2015) have called for a re-examination of post-graduate degree structure to more fully prepare graduates to use mathematics for more than publication. We foresee this re-examination happening across multiple disciplines. Moreover, we foresee a greater prioritization for teaching and learning, and the availability of intentional ongoing training and professional development systemwide to continuously improve the quality of instruction and the quality of the student experience inside and outside the classroom.

This training will provide knowledge that is learner-wide, as well as transcending disciplines. There is increasing research to support the impact

that a student's academic mindset and identity as a learner has on enhancing or inhibiting the likelihood for success. Future classroom teachers, advisors and student affairs professionals will be trained to employ educational interventions that enable students to think differently about their identities as students, and instead adopt more advantageous academic mindsets.

Recommendations—Lifelong Learning

USG will achieve this by:

- Creating a new kind of life-learning record that has the portability to enable it to move through each student's learning journey and the security and dependability to ensure that it is an immutable record of learning.
- Creating mechanisms that allow students to easily re-enter and re-commence their studies at various periods throughout their lives.
- Developing short-term and stackable credentials that can be transcribed and widely accepted by employers.
- Creating policies that more seamlessly and more dependably enable the transfer and transcription of credits across institutions.

- Encouraging the introduction of tenure and promotion guideline elements that more effectively recognize quality of teaching and initiatives that impact student success and completion.
- Providing training and professional development to refine the quality of instruction as part of faculty career paths and graduate training.
- Enhancing institutional abilities to more effectively collect, analyze and utilize data analysis and predictive analytics make data-informed strategic decisions.
- Each USG institution should have a “futures” task force that engages in institutional far-future-oriented strategic planning and visioning.

Case Studies

- **Denison University: Onboard Modules**

SOURCE: <https://denison.edu/campus/career/onboard>

OnBoard is an online professional skill-building platform offered through Denison University’s career center. The program encourages current students and recent graduates to take advantage of times during the year when they are not in academic classes to engage in career development mini-units which are designed to enhance their job readiness. The OnBoard Modules are a series of 60 self-paced units that build upon the liberal arts skills the students are developing in their coursework, yet these units are applied in a way that employers will find appropriate for job readiness. Some of the units available for students to take are ethics and responsibilities, the time

value of money, financial budgeting, leadership styles, delivering effective presentations, inventory costing, project management methodologies, e-commerce, security, taxes and take-home pay and office and workspace etiquette.

- **Boise State University: Ten before Tenure**

SOURCE: <https://ctl.boisestate.edu/tb4t/>

Boise State University offers pre-tenure faculty a series of professional development activities designed to introduce and encourage them to use evidence-based teaching activities.

Participants are encouraged to develop a network of colleagues across campus who they might consult with on their teaching processes, and to also build a teaching portfolio that can be used later in the tenure and promotion process. Participants are asked to complete 10 of professional development activities. Four of the 10 are required activities on course design, digital fluency, service learning and assessment process mapping. Participants are then encouraged to choose at least six other activities which may include attending a professional conference on pedagogy, joining a teaching-learning community or giving a teaching presentation. Participants must also develop a reflection paper in which they reflect on what they have learned about the teaching process and how they will continue to develop over time.

- **Valencia College: Essential Competencies of a Valencia Educator**

SOURCE:

<https://valenciacollege.edu/faculty/development/coursesResources/>.

In September 2017, Valencia College adopted a set of seven essential competencies of a 'Valencia Educator.' These competencies were developed by their academic community of deans and faculty, and serve as the foundation for the ongoing development of teachers, counselors and librarians at the college. Over the course of an entire career, faculty members continually develop their expertise in these essential competencies with the support from Faculty Development and the Teaching/Learning Academy. This effort is meant to help them expand their professional practices, examine their ongoing development of the essential competencies and engage in continuous improvement processes that result in student learning. This work forms the foundation of all of faculty development opportunities and is an integral part of the tenure and promotion process.

- **University of System of Georgia: Nexus Degree**

SOURCE:

https://www.usg.edu/news/release/university_system_of_georgia_announces_new_nexus_degree

In February 2018, the Board of Regents approved an innovative new degree designation called the nexus degree. A nexus degree is a 60-credit-hour degree, consisting of 42 credit hours of general education and 18 credit hours of coursework focusing on the skills and knowledge requirements of a major industry. The 18 credit hours create an apprenticeship-internship aspect that must include at least six credit hours of experiential learning and at least 12 credit hours of

upper division coursework. The curriculum for a nexus degree must be planned in conjunction with a major industry sector. Using some methodology analogous to the Talent Development Playbook (see Essential Skills Case Studies), the blueprint of the curriculum is created to ensure that it provides the skills, knowledge and ability requirements of the industry. Faculty then design the learning experiences to meet those specifications.

The nexus degree provides several new learning options to students. It is a stand-alone credential that enables a student with some college and no degree, or someone with an existing degree who wishes to redirect or enhance their resume, to quickly earn a focused technical credential. Institutions will offer the degree in this way in a concentrated *boot-camp* format. Students who might otherwise have sought an associate's degree may now follow the 60-credit-hour requirement of a nexus degree curriculum. The nexus degree structure creates a new class of technical transfer associate's degrees. Finally, a bachelor's degree-seeking student whose curriculum already contains the core classes may include the 18 nexus credit hours in a similar way to a minor. This would allow the creation of a new class of 21st-century liberal arts degrees that would generally prepare a student for a life of work in their field, as well as including a targeted and immediate technical focus.

- **Georgia Tech Commission on Creating the Next in Education Report: Deliberate Innovation, Lifetime Education**

SOURCE: <http://www.provost.gatech.edu/cne-home>

Georgia Tech formed the Commission on Creating the Next to envision in broad strokes the nature of higher education that will define the research university in 2040 and beyond. This report builds on a previous report from 2016, *Discovering the Drivers of Change in Higher Education* (Georgia Tech 2016), to outline the forces for change that will shape Georgia Tech. It also paints a new, ambitious proposal for Georgia Tech's Commitment to Lifetime Education. The report calls for initiatives that develop "whole person" education, based around a new array of educational "products and services." Students will be guided through these new educational structures of micro-credentials and mini-semesters by a "new era of advising," that employs technology based advising that employs Artificial Intelligence and personalization.

4. Partnerships

Community Governmental Corporate Business Alumni Friend Parent Political K-12

Fostering relationships with industry, k-12 and higher education partners strengthens USG programs and increases opportunities for students. This is especially true in underserved markets, where additional access points can provide new options for students who may not have otherwise considered them.

USG will encourage and facilitate these relationships through policy and practice, following guidelines provided by the administration and the Board of Regents.

For universities to meet the demands of the future, they must develop robust partnerships that will support the essential work of the university. Universities have successfully partnered with communities to bring services and activities to residents, but this partnership has been relatively focused. And, while universities have successfully partnered with business and industry to develop research and innovation projects, partnerships which support the educational agenda of universities has lagged. Some of the cause for this rests with the university itself. Heretofore, higher education, in particular curriculum and teaching, has been insular and not greatly influenced by corporate or community partners. Universities must do a better job of listening to business and community partners if they are to be relevant into the future.

Expansion of Current Relationships

Currently, many colleges and universities across the country are working with the private sector to build business models which allow them to provide state-of-the-art facilities that are in high demand by students. These partnerships, commonly referred to as P-3 projects (public-private-projects), are likely to expand and grow in the future and have developed as states have withdrawn funding to provide bricks-and-mortar projects (Jordan, Shorter & Westfall, 2013; MacErlean, 2017).

The future is likely to find partnerships between institutions and business and industries which address the affordability and accessibility challenges presented to many students who find it necessary to work while going to school. For example, some institutions, in partnership with select industries, offer university or college credit for functions the student has learned while on the job. This makes achieving a college degree based upon credit hour production more attainable for a student. Indeed, some business and industry see the value of higher education and find ways to add support of university or college training as a benefit for employees. Interestingly, employers have found that adding this benefit leads to employee retention — and institutions have found that these students are more likely to persist and complete their degrees as well (Carlson, 2017).

Future partnerships between institutions and businesses may find themselves delving into the most heretofore “sacred elements” of higher education. While current partnerships have been limited to non-educational areas, the future is likely to find creative and collaborative

educational models which transform curriculum, according to Michael King (2015) writing for the Harvard Business Review. He states, “providing experience-based and practical learning is critical to address the current performance gaps. Integral to this is building and expanding partnerships between academia and the private sector to create a more valuable education ecosystem” (King, 2015). Therefore, future partnerships are likely to impact curricular content and pedagogical approach in order to produce a graduate who is ready to work upon graduation.

Working Together

While institutional partnerships with business and industry are likely to expand, it is also likely that coalitions of institutions will form stronger partnerships and ties to provide efficiencies to meet the ever-increasing costs associated with providing their product. The USG has been a prominent pioneer in online education, bringing a consortium of schools together to achieve economies of scale offering online courses and online degree programs. The future will see higher education and k-12 systems employing systemwide and collective-impact partnerships to create a coordinated statewide educational ecosystem. In fact, the future may find that the differences between higher education institutions is less about the education, which will be very similar and common, and more about the unique experience generated by the particular institutions.

As disruption continues to press higher education to reinvent itself, the future is likely to find yet different kinds of partnerships forming (New, 2016). Groups and coalitions are forming to support and influence support

for various higher education functions. For example, the Association of Governing Boards has recently called for a new type of “partnership” to support higher education. The Guardians Initiative is one example of an action council being created to diffuse some of the negative criticism aimed at higher education and impact public support of colleges and universities (AGB, The Guardians Initiative, 2018).

Institutions have partnered to bring services and activities to communities. As state funding decreases, communities, corporations and private funders may need to provide more support. Institutions need partnerships from business and industry to assist in the classroom and to help develop essential/employable skills. Indeed, there is a need for partnerships to support training and education of students through scholarships, etc. and for partnerships which will provide workforce-related training for students through co-ops, mentorships, internships and on-site training.

Recommendations—Partnerships

USG will achieve this by:

- Encouraging the creation of nexus degree programs at USG institutions.
- Expanding student opportunities for experiential learning with industry, using an apprenticeship model as a guide.
- Developing business and industry partnerships that support the educational agenda.

- Employing systemwide and collective impact techniques to create a statewide coordinated educational ecosystem.

Case Studies

- **American Council on Education: Common Course Agreement**

SOURCE: <http://www.acenet.edu/news-room/Pages/Transfer-Guide-Understanding-Your-Military-Transcript-and-ACE-Credit-Recommendations.aspx>)

The American Council on Education (ACE), in partnership with the Department of Defense, administers a program designed to provide college and university credit based upon military experiences and training. The ACE military evaluation is a process conducted by a team of teaching faculty from relevant disciplines representing a wide array of colleges and universities. The team reviews the military courses or occupations and determines if the content, scope and rigor of the activity in question meets the challenge of college credit. Credit recommendations are made on the military transcript, and the credit transferred is the sole discretion of the college or university.

- **Various: Employer-College partnerships**

SOURCE: <https://www.edsurge.com/news/2018-05-30-walmart-chooses-three-colleges-where-its-employees-can-study-for-1-a-day>

Two major US private employers have recently partnered with institutions of higher education to provide their employees access and financial assistance to a college degree:

STARBUCKS

SOURCES:

- <https://starbuckscollegeachievement.info/welcome>
- <https://news.starbucks.com/views/starbucks-college-achievement-plan-frequently-asked-questions>

In partnership with Arizona State University, the Starbucks Coffee Company offers all company partners who work an average of 20 hours per week an opportunity to earn a bachelor's degree at ASU's online degree program. In this unique partnership, Starbucks Partner employees receive an initial College Achievement Plan scholarship which pays for 42 percent of tuition costs provided by ASU. Starbucks will then reimburse for the remaining tuition and fees not covered at the end of each semester. Starbucks hopes to assist at least 25,000 employee/partners achieve their degree by 2025.

WALMART

SOURCES:

- <https://blog.walmart.com/opportunity/20180530/why-were-offering-associates-a-path-to-debt-free-college>
- <https://www.edsurge.com/news/2018-05-30-walmart-chooses-three-colleges-where-its-employees-can-study-for-1-a-day>

If employees will major in business or supply chain, Walmart has offered employees the option to pay \$1 each day to participate in degree acquisition from one of three approved nonprofit colleges. The company has agreed to cover the remaining cost for tuition, books and fees. The partnership between Walmart, the nation's largest private employer, and the University of Florida, Brandman University and Bellevue University will create a path for low-cost to debt-free college for these employees who take advantage of the program. Another partner in the program is Guild Education, which administers the education benefit. Guild provides enrollment and success coaches to assist students/employees to navigate the higher education landscape and provide advice on managing work and school.

- **Valdosta State University: Center for South Georgia Regional Impact**

SOURCE: <https://www.valdosta.edu/strategicplan/#enhance-impact-in-our-region>

The Center for South Georgia Regional Impact was created in 2018 as part of Valdosta State University's new strategic plan, which focuses on increasing student success and opportunities for experiences outside the classroom, as well as the development of resources for communities in the region. At VSU, students work closely with expert faculty to get hands on experience in identifying solutions to the issues facing the region, including the institution's 41-county service area. These experiences provide a talented workforce of VSU alumni

and establish Valdosta State University as the flagship institution of higher education in South Georgia.

- **Houston: Houston GPS**

SOURCE: <http://www.uh.edu/provost/university/houstongps/>

Houston GPS is designed to improve the process of transition from community college into a four-year university by creating an educational ecosystem around the Houston metropolitan area. The network includes the University of Houston System together with six regional community colleges, all of which have agreed to an integrated set of strategies designed to increase and accelerate student completion. Students in the program are assigned structure pathways and, based upon high school performance and interests, are provided meta majors. They must secure permission to take courses off of their schedule. Milestone or prerequisite courses are assigned each semester, and intrusive advising ensures that students see an advisor regularly. The project has resulted in higher graduation rates and increased on-time graduation, a closing of the achievement gap and fewer lost credits which has resulted in a savings of time and money.

- **Indianapolis: INDY Achieves**

SOURCE: <http://www.Indyachieves.org>

INDY Achieves is a program sponsored by the city of Indianapolis to meet the ever-changing job market expectations and needs of the city. It also ensures that Indianapolis citizens have the ability to pursue a post-secondary certificate or credential which might place them on

the pathway to middle class. The program focuses on increasing student access to financial aid and providing the student with an understanding of the educational options available. A robust partnership between Ivy Tech, IUPUI, the city of Indianapolis and philanthropic agencies has created this collaborative. INDY Achieves Scholarships are provided for students to study in high-demand fields, and students must meet clearly specified criteria designed to move them toward retention and completion. In addition, completion grants are provided for students who have completed 75% of their coursework.

- **Lumina Foundation: Beyond Financial Aid**

SOURCE:

<https://www.luminafoundation.org/files/resources/beyond-financial-aid-2018-03.pdf>

Beyond Financial Aid is a project funded by the Lumina Foundation. It features a toolkit designed to assist two- and four-year colleges and universities to help students with low income challenged by limited resources to overcome these challenges and move toward degree attainment. Beyond Financial Aid encourages colleges and universities to pursue five strategies to assist students with low incomes. Colleges and universities must seek to know students who are economically challenged, review internal processes and organize support systems for these students, build internal and external partnerships to support students, optimize students' use of services made available and create an institutional culture of support. For example, Georgia State University has provided Panther Retention

Grants designed to assist financially challenged students to move forward and make progress in the degree-earning process. GSU is using specific data criteria designed to identify these students in need. Additionally, students sign a contract and meet with a counselor to develop a plan to fund completion of their education. As a result, over 70 percent of seniors who receive these grants graduate within two semesters.

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VIII. In Memoriam

As the College 2025 committee finished its work and began preparation of this report, member Merri Brantley unexpectedly passed away after attending the annual University System of Georgia Foundation gala in Atlanta. Ms. Brantley's decades-long career in public service made her a mainstay at the Georgia Capitol and fierce advocate for education across the state. We appreciate and honor her legacy.