

CSU System Board of Governors Board Retreat
June 15 – 16, 2017
Cheyenne Mountain Resort, Remington II

MORNING: PERSPECTIVES

THE HERITAGE OF THE LAND GRANT MISSION AND DISCUSSION OF HOW IT INFLUENCES THE FUTURE
Tony Frank 9:00 a.m. – 10:00 a.m.

PERSPECTIVES FROM CSU-PUEBLO AND CSU-GLOBAL
Tim Mottet, Becky Takeda Tinker 10:00 a.m. – 10:45 a.m.

BREAK

DISCUSSION OF GLOBAL TRENDS IN LEARNING
Simon Nelson, CEO of FutureLearn 11:00 a.m. – 12:00 p.m.

LUNCH – *Mountain View Restaurant* 12:00 p.m. – 1:00 p.m.

AFTERNOON: APPLICATION TO SYSTEM STRATEGIC PLAN 1:00 p.m. – 5:00 p.m.

REVIEW, STATUS, NEXT GENERATION:
THE 2017 PLAN – GOALS, PROGRESS, CHALLENGES
Amy Parsons 1:00 p.m. – 1:45 p.m.

INTEGRATION:
DISCUSSION OF MISSION AND BOARD'S PRIORITIES TO ALIGN SYSTEM STRATEGIC MAP
Rico Munn, Tony Frank 1:45 p.m. – 2:45 p.m.

BREAK (15 mins)

STRUCTURE:
HOW TO ALIGN THE ORGANIZATION TO BE EFFECTIVE ON THE PLAN AND MISSION
Tony Frank 3:00 p.m. – 3:45 p.m.

WRAP UP: 3:45 p.m. – 4:00 p.m.

Simon Nelson

Chief Executive, FutureLearn

Simon Nelson is Chief Executive of FutureLearn, the leading social learning platform and first UK-based provider of massive open online courses (MOOCs), which has now evolved to offer fully online degrees.

The Open University-backed FutureLearn site went live in September 2013; since then, it has attracted **over 6 million** registered learners studying **14 million courses** between them.

In May 2015, FutureLearn delivered the biggest single run of a MOOC ever, with a record of more than 440,000 people signing up for the IELTS course from the British Council. In May 2016, FutureLearn launched its first credit-bearing MOOCs, a milestone followed by its partnership with Deakin University in December 2016, offering a suite of fully online degrees. Most recently, FutureLearn announced its first partnerships with key educational institutions in America.

To date, FutureLearn has partnered with a quarter of the world's top 200 universities, including over 90 UK and international universities, and 36 specialist education providers and centres of excellence, including the British Council, European Space Agency, Houses of Parliament, Raspberry Pi and Cancer Research UK, to deliver free and paid for online courses to its global community of learners.

The company was named "Start-up of the Year" at the 2014 British Interactive Media Awards and won 'Best Education or Learning Experience' and overall 'Best User Experience' categories at the 2015 UXUK Awards. The company also won 'Free Digital Content/Open Educational Resources' category at the BETT 2017 Awards.

In October 2016, Simon Nelson was invited to deliver the annual President's Lecture for the [Royal Society of Arts in London](#), sharing his thoughts on the future of education and the opportunities that digital platforms present.

Simon Nelson has a background in digital disruption as a pioneer in taking media brands and content online. He spent 14 years at the BBC, where he was instrumental in putting radio online, and overseeing its podcasting service and the innovative Radio Player. He then moved to head up all digital content activities for its television divisions where he led the development of the BBC iPlayer and other ground-breaking online products and services.

Simon and his teams have won multiple awards for digital innovation and product development, including several Emmys, Webby and Bafta awards, the Prix Italia, Prix Europa and Rose D'or.

May 2017



Public Regional Colleges Never Die. Can They Be Saved?

By Lee Gardner APRIL 30, 2017 PREMIUM

CLARION AND HARRISBURG, PA.



Andrew Turner

Enrollment at Clarion U. of Pennsylvania has dropped nearly 29 percent since 2009.

You don't need a Ph.D. to understand the math that spells trouble for public

higher education in many states. Typically, the number of high-school graduates is projected to decline by X percent in the coming decade, and state support has dropped by Y million dollars since the recession with little sign of ever rising again.

Meanwhile, the number of four-year regional comprehensive universities remains constant, an inflexible denominator.

The numbers are plain, but solutions remain elusive. Comprehensives are the workhorses of a public higher-education system, awarding the bulk of bachelor's degrees and providing educational opportunities in all corners of a state. But certain corners of many states are home to institutions that have been hemorrhaging students and struggling to balance their budgets.

Pennsylvania is one of those states. Nine of the 14 institutions in the Pennsylvania State System of Higher Education, known as Passhe, have suffered double-digit percentage drops in fall enrollment since 2009. (Only one, West Chester University, in a Philadelphia suburb, has seen steady annual increases during that period.)

In January, the system announced the first ever [full-scale review](#) of its universities and the system over all, which Frank T. Brogan, the chancellor, says is unsustainable in its current form. "The Board of Governors pretty quickly made the case that everything should be on the table. What got most of the attention was the word 'closure,'" he says. But neither he nor the board want to take that route: "Sustainability is a more complicated approach, and I think a more powerful approach." A State Senate committee will also conduct its own independent review of the system later this year. Passhe's is slated to be completed this summer.

What can be done, in Pennsylvania and in the growing number of states that are being forced to reckon with their comprehensive-university systems? Universities, even wobbly ones, are complex and substantial organizations sunk into the bedrock of their communities, their regions, their states. It may be nearly impossible to close one. And so some leaders are looking for ways to keep colleges alive, by carving out niches for them in the marketplace or by merging and consolidating, as has happened in Maine and Georgia.

But are such efforts transformational enough, or are they just a way of rearranging the deck chairs? And what will public comprehensive universities look like on the other side?

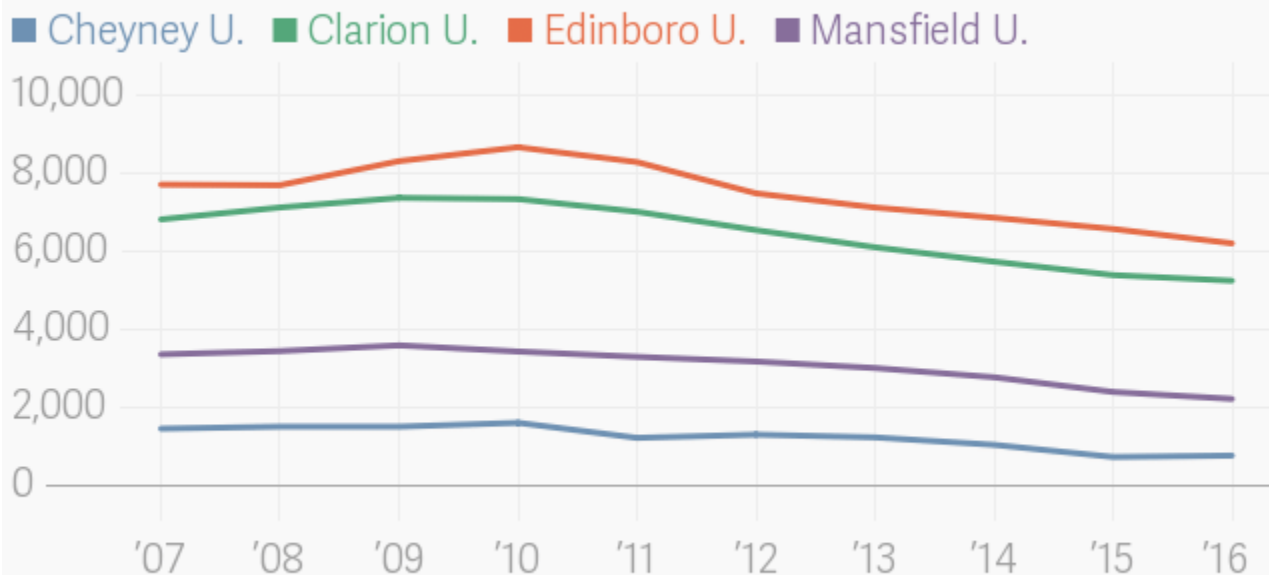
Whatever happens, it's probably high time, says Karen M. Whitney, president of Clarion University, a Passhe institution. "We are," she says, "in a moment of reformation."

Some Passhe institutions are not waiting for the results of the two reviews to

try to improve their fortunes, and they're using a strategy being employed by colleges everywhere: finding a distinctive competitive niche. It's a remarkable shift for institutions designed to be "comprehensive."

But significant transformation is not unknown at an institution like Clarion, according to Ms. Whitney. Since its founding in 1867 in the small Western Pennsylvania hilltop town from which it takes its name, Clarion has been a private Methodist seminary, a commonwealth normal school, an independent public university, and, since 1983, a Passhe institution. "Each of those reformations came with a shift of development in our mission and why we exist," she says.

Pennsylvania's Enrollment Drop



ATLAS | Data: Pennsylvania State System of Higher Education

The latest shift has been sparked by a serious enrollment decline. Clarion's fall enrollment dropped from 7,346 students in 2009 to about 5,224 students last year, a decrease of nearly 29 percent.

For Clarion to rebound, it must focus on what its students want, Ms. Whitney says. And those preferences are clear: About 80 percent of Clarion's students enroll in its business, health-care, or education programs. "I am not going to ignore 80 percent of our students," she says. "We're moving from a broad-based approach to being all things to all people to what I'm going to call a distinctive mission."

The university recently expanded its health-care offerings with a nursing B.S.N. program, and she says she's encouraged by the trends in applications and admissions for next fall. Ms. Whitney adds that in five years, if all goes well, she expects the share of its students enrolled in professional degree programs will have topped 90 percent.

Meanwhile, fall enrollment at Mansfield University, in rural north-central Pennsylvania, dropped from 3,569 to 2,198 since 2009, a decrease of 38 percent. It is planning to increase its appeal to students by shifting its role away from a straightforward comprehensive university toward a liberal-arts institution at a public-education price point, including ambitions to suffuse its existing professional and pre-professional programs with "liberal-arts-type tenets," says Brig. Gen. Francis L. Hendricks, the president. Mansfield isn't making a left turn from its mission, he says, "it's just a matter of playing to our strengths."

Edinboro University, in the commonwealth's northwest corner, is responding to losing about 28 percent of its fall enrollment between 2010 and 2016 by identifying four academic program areas on which to refocus its resources, including its arts and digital entertainment program, among other pre-professional tracks.

Emphasizing certain things leads to de-emphasizing others. As Clarion's nursing offerings have grown, disciplines such as philosophy and history have dwindled to a handful of faculty of each. At Edinboro, programs that are less in demand by students may have to be cut, says H. Fred Walker, the president. "What we're being asked to do right now is become responsive to the changing economy," he says. "That's a healthy thing."



Michael Henninger for The Chronicle

Whatever happens with coming reviews of the Pennsylvania higher-education system, says Karen Whitney, president of Clarion U., “the worst thing that can happen is that nothing happens.”

While leaders at some Passhe institutions may be setting a new course for their universities, those courses may be reversed by the recommendations of the looming system reviews. Five years from now, Clarion might have staked out its niche funneling students into careers in hospitals, small businesses, and schools. Or the system might have steered it in an entirely new direction. Or it might be shuttered. But Ms. Whitney and other Passhe presidents agree that something must be done. Whatever happens, she says, “the worst thing that can happen is that nothing happens.”

In the abstract, closing faltering institutions makes some sense. In reality, it’s all but impossible.

“Devastating” is a common response to questions about the possible effects of a closure. Clarion University, for example, is the largest employer in Clarion County. It is an economic and cultural driver in a poor region where the population and the manufacturing base that once employed it have both trailed off in recent decades. If

Clarion closes, "you just basically say, 'We're shutting down Clarion County,'" says Jamie L. Phillips, a professor of philosophy and chair of the Faculty Senate at Clarion.

If the region is to rebound, it needs Clarion more than ever, says Mr. Phillips, who has worked there for 18 years. About 86 percent of the university's students come from within 200 miles of the campus, and Clarion represents one of the few options for higher education in the immediate region. "Take that away from them, and what's left?" Mr. Phillips says. "There's nothing."

But the truth is that public colleges almost never die. The only commonly cited example of a stand-alone quasi-four-year public college that has been shut down is the University of South Dakota at Springfield, a small technical college that mostly offered two-year programs until it closed in 1984. (It was soon converted into a state prison.)

Even killing off a failing branch campus can be an agonizing process. Partly because of a \$30-million cut to state support, the University of Connecticut system last year closed its campus in Torrington, where enrollment had dwindled to about 150 students even as it climbed at all five other UConn campuses. System officials spent a year in discussions about the necessity of the move with the Board of Trustees, state and local elected officials, and students and community members, says Sally M. Reis, the system's vice provost for academic affairs.



Michael Henninger for The Chronicle

Clarion's plan to sustain itself focuses on popular programs like nursing. But systemwide reviews this year may result in new directives.

But still there were objections, which were both practical and quirky. Torrington residents insisted to the board that it stay open, even though many of their own children had enrolled at UConn campuses elsewhere, Ms. Reis says. Community members suggested revitalizing the campus with a new manufacturing emphasis, even though nearby community colleges provided such training at a lower price. Some fretted publicly about the fate of the library's in-house cat. (It found a new home before the campus closed last May.)

Suggested closures not only alarm local communities, they're political poison. Each endangered university sits in some representative's or senator's district, and there's "lots of downside for the people who represent those areas and not a lot of upside," says Iris Palmer, a senior policy analyst for education policy at New America, a former Department of Education official, and an expert on public higher-education policy.

If states actually wanted to close institutions, Ms. Palmer says, it would help to have something like the United States military's Base Realignment and Closure process, which is designed to make holistic, impartial decisions about closing defense installations, "to right-size these systems and do it well."

Since closing universities often isn't a realistic option, several systems have

considered campus mergers and other kinds of consolidation. That can take the form of [sharing or pooling some business functions](#) with other institutions, or merging two separate campuses under the same management and leadership.

Some struggling Passhe institutions are already sharing services with their peers in order to increase efficiency and reduce their costs. Cheyney University, a historically black institution outside Philadelphia that has seen enrollment drop by more than half since 2010, now outsources most of its business functions to nearby West Chester University. Mansfield University, which is handing over many of its business functions to the larger Bloomsburg University, about 90 miles away, will save the former money "so that we can protect the primary mission," says General Hendricks, the president.

Mr. Brogan, the system chancellor, says he suspects that consolidations could be a part of how the system moves forward after the reviews "Our system has up until quite recently been very much an every-man-for-himself operation," he says, with many of the same basic functions reproduced 14 times over. "They just don't have the money to do that. More importantly there is no longer the necessity to do that."



Darrell Sapp, Pittsburgh Post-Gazette

Whether or not Pennsylvania's higher-education system can be successfully transformed depends on political will, says Frank Brogan, chancellor of Passhe.

Other states have taken similar tacks. The University System of Georgia, for example, has merged 14 institutions over the past six years in an effort to [improve academic opportunities and cut costs](#). Maine has also looked to mergers to help adjust the scope of its system of seven public four-year institutions to serve a shrinking population of 1.3 million.

The University of Maine system announced in March that it would merge its coastal Machias campus, which enrolls fewer than 800 students, with its flagship campus in Orono, about 90 miles away. The Machias campus had been struggling to maintain its enrollment — fall headcount shrank from 863 in 2011 to 786 in 2015 — and years of budget shortfalls had led to numerous staff cuts. "It had really become hollowed out," says James H. Page, chancellor of the University of Maine system. "That's a strong term, but it really had."

The system's Board of Trustees considered closing the campus, but ruled it out. "Would you take one of the last anchor institutions out of a region to save five, six, or seven million dollars, which would probably be a quick back-of-the-envelope net savings from something like that?" Mr. Page says. "And the answer is, you would not."

Because of Orono's size and relatively good financial health, it can perform back-office functions far more cheaply than Machias can. The flagship can also offer the smaller campus services that it hasn't had money for in several years, according to Mr. Page, including marketing and enrollment assistance. There are also academic

synergies woven into the merger. Orono students and faculty will gain better access to Machias' marine research facilities and teaching opportunities, while Machias could gain more students and access to more research funding. If Machias gets back to more solid footing as part of Orono, Mr. Page says, it might be able to strengthen itself, and its region, again.

Still, the old model of individualized universities has presented barriers to efficiency, and difficult questions. The system has a cybersecurity program taught on three different campuses. Do students have to enroll in three different universities? What about the differences in fees from campus to campus? And then there's accreditation. The New England Association of Schools and Colleges accredits individual institutions, not systems, Mr. Page says.

Consolidations also may not be the silver bullet, financially, that many hope they are. While merging campuses can save money for a system, the savings typically come from layoffs of employees made redundant. "Saving that money will result in people losing their jobs, and some legislators are going to fight very hard to preserve jobs in their district," says Thomas L. Harnisch, director of state relations and policy analysis at the American Association of State Colleges and Universities. While closing or consolidating some offices can result in savings, many merged institutions still maintain two physical plants, two sets of faculty, and many administrators. Mergers are increasingly popular options, but "it's an open question to how much money will ultimately be saved at the end of the day through these campus consolidations," Mr. Harnisch says. (It's difficult to gauge the extent of savings in Georgia; the University System of Georgia did not respond to interview requests before press time.)

Yet, despite the uncertainties, Passhe, the University of Maine, and other systems may be peering over the lip of a new era of public higher education, where the autonomy and distinct identity of individual universities is redirected to a focus on delivering education to students as efficiently as possible. "The real question in all of this is, How do you use the collective assets of the institutions to serve students wherever they are?" says Dennis Jones, president emeritus of the National Center for Higher Education Management Systems, or Nchems, a nonprofit organization that advises colleges and systems on higher-education policy, and which is [conducting the review](#) commissioned by Passhe. Looking at the situation with a student-centric focus, rather than an institution-centric one, moves the conversation away from which individual universities might be closed or merged and toward how those universities operate and collaborate to provide education to students — which may have to be reconceived, he says.

It's possible to imagine a future iteration of Passhe that looks and operates less like a collection of independent public universities and more like a system of branch campuses.

Each state's political realities shape what's possible in rethinking, and possibly

reconfiguring, a large public university system. They are especially daunting in Pennsylvania.

No overarching office or organization coordinates its higher-education policy. Reforming that policy is the sort of complex and potentially contentious political task that's going to take an official who "wakes up every morning and thinks that solving Passhe and its issues is my everyday job," says Mr. Jones. "The problem in Pennsylvania is that nobody does that, because there's nobody that's charged with that."

There are many issues to solve, some of the stickiest falling well outside the control of Passhe's Board of Governors. Penn State University, the flagship research university, now has 24 campuses located throughout the commonwealth, all of them vying for many of the same students who might attend Passhe universities. Thanks to its laissez-faire approach to higher-education strategy, "this state has created an inherent competition even within the competition," says Mr. Brogan.

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Passhe leaders also say that the system's union contracts have made it tough to maintain their institutions' sometimes shaky bottom lines. Mansfield University cut its labor force by almost 7 percent last year to help close a projected \$8-million budget gap, says General Hendricks, the president, only to be hit with increased labor costs from a new faculty contract: "We watched all that water that we bailed out of the boat come right back in."

The system's labor agreement with faculty also contains limitations on dismissing or reassigning professors that may make it difficult to substantially shift how its universities deliver instruction in a revamped Passhe.

But Passhe's problems have nothing to do with its unions, according to Kenneth M. Mash, president of the Association of Pennsylvania State College and University Faculties, known as Apscuf, which represents the system's faculty. The financial straits affecting many of the system's institutions stem from crumbling state support (only about 24 percent of Clarion University's annual operating budget now comes from the commonwealth, for example), and from bad choices made by the leaders of individual institutions, he says. "It's easy to say that this university or that university is failing, but is it really failing, or are the conditions such that it just can't succeed?" he says. He adds that union-contract strictures provide an important check on "business mentality" decisions about the course of Passhe's universities. System leaders "should be required to justify why what they're doing is necessary," he says.

In the end, resolving these complications — or even electing to face them — comes down to political will. "You can do a great review, you can do a great study," Mr. Brogan says. "But if the powers that be don't want it to happen, it either won't get off the ground or it will crash and burn immediately after takeoff."

The state's elected officials are ready to shake up Passhe, according to David G. Argall, a Republican state senator. The enrollment statistics for the system convinced him and many of his legislative colleagues that the status quo can't endure. Mr. Argall was the lead sponsor of the measure that called for the Senate Legislative Budget and Finance Committee to review Passhe. The committee's review will not be completed until months after Passhe's review, but Mr. Argall says he's "hopeful that they come up with very similar answers. This way we can say to everyone we have looked under every rock, we've asked every possible question."

Even if there is consensus among decision makers, Mr. Brogan says he expects that there will be objections, opposition, and arguments over what happens to Passhe and its institutions. He hopes that all parties to the discussion can put their own turf concerns aside and think about the bigger picture. The outcome of this process could determine not only the fate of 14 universities, their faculties, and their students, it could set the course for higher education in Pennsylvania for future generations.

"This thing's going to long outlive the chancellor," Mr. Brogan says. "It's going to outlive any of the 14 presidents. It's going to outlive most of the people in the General Assembly. And therefore it needs to be designed with the best interests of those to come."

A version of this article appeared in the [May 5, 2017 issue](#).



Moocs, and the man leading the UK's charge

Simon Nelson is head of FutureLearn, the OU's venture into Moocs - massive open online courses that some have claimed will revolutionise higher education

Peter Wilby

Tuesday 19 August 2014 07.40 BST

Twenty months ago, Simon Nelson was shown a picture of a Highland cow, known in Gaelic as a kyloe. It was the Open University's code name for a secret project which, according to some accounts, will revolutionise higher education, making it available to millions across the world at zero cost. Today, Nelson, whose previous job at the BBC involved launching iPlayer, heads FutureLearn, a company that, 11 months after it opened for business, has 450,000 learners studying courses from 40 leading universities, 10 of them overseas including two in China. The subjects range from dentistry to Shakespeare, archaeology to cancer, the Higgs boson to 15th-century England. Many more students and courses will follow, Nelson says. "We have just built the foundations. See where we are in six months, a year, two years, three years. There's tens of millions in the UK who'll be interested in what we offer and the international audience is enormous."

FutureLearn is the first big British venture into Moocs (hence the OU's cow, geddit?), a name which Nelson admits is "appalling". Moocs are "massive open online courses": "massive" because they can be taken by thousands simultaneously; "open" because there is no selection of students and no fees; and "online" because you can read course materials, hear

lectures, watch videos and take tests from just about anywhere on the planet. David Willetts, science minister until last month's reshuffle, has said Moocs "will revolutionise conventional models of formal education". Thomas Friedman, the New York Times columnist and enthusiast for globalisation, has said nothing "has more potential to lift people out of poverty". Lifelong learning for all - a goal that visionary educationalists have pursued for decades - can at last become a reality. If, that is, you believe the hype.

"The revolution that has higher education gasping" (New York Times) began on America's west coast, in the computer science department of Stanford University, California. In 2011, the department's internationally renowned academic Sebastian Thrun, developer of Google's driverless car, put his three-month introductory course on artificial intelligence online, allowing anybody to access the same lectures and homework assignments as his Stanford students. To his astonishment, 160,000 people, aged from 10 to 70, from more than 190 countries, signed up. Even more amazingly, the top 400 places in the final exam went to the internet students, not to Stanford students paying annual fees of \$52,000 (£31,000). Thrun was so excited that, with colleagues, he set up a company, Udacity, to deliver more courses. "I can't teach at Stanford again," he said. "I've seen Wonderland." Udacity now has 1.6 million users. It is one of several American platforms for Moocs, including edX (2.5 million users, 215 courses), founded by Harvard University and Massachusetts Institute of Technology.

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The sceptics are almost as numerous as the enthusiasts. Oddly, Thrun is now among them, saying a few months ago that "we don't educate people ... as I wished; we have a lousy product". Udacity has switched its focus to vocational courses - a computer science master's degree offered jointly with Georgia Institute of Technology, for example - for which students pay fees, albeit only a third or less of what they would pay on campus. Other critics accuse Moocs of peddling outdated pedagogy; of playing a cruel trick on the masses because, even if courses are openly accessible, credentials will be as tightly controlled as

ever; and even of being a new tool of western imperialism. Far from reaching new audiences, the majority of Moocs students - over 70% in FutureLearn's case - already have degrees. Yet the completion rates are usually below 10%. Some critics warn of a future in which thousands of academics lose their jobs (echoing journalists who work for newspapers that lack an online paywall, many ask "why give away our content for nothing?"); only the elite institutions flourish because everybody prefers output from, say, Oxford or Harvard; and higher education, turned into a mass market industry, settles into uniformity with a few courses and a few star lecturers. When the Harvard professor and 2009 Reith lecturer Michael Sandel turned his course, Justice, into a Mooc, staff at one university protested that it would be "downright scary" if every philosophy student in America took the same social justice course.

Nelson doesn't accept most of the criticisms but also distances himself from some of the hype. "There have been some wild claims about solving world poverty and the educational problems of the developing world," he says. Moocs won't, he promises, develop into a winner-takes-all market, as the books and recorded music markets have. "There are huge differences between the providers. Learning is not something you can commodify."

We meet in FutureLearn's open-plan offices in the British Library in London. Nelson, 45, is an unlikely geek. He went to Manchester grammar school and Downing College, Cambridge, where he was tutored for a time by the very ungeekish classicist and TV presenter Mary Beard. From 16 to 21, he studied nothing but ancient languages and civilisations. He says his mother, a passionate bridge player, adopted the internet before he did. With no particular career ambitions, he took a part-time MBA at Manchester University while working for a family friend in a wholesale wig and toupee business. He later worked in the marketing department of the Independent newspaper before joining the BBC where he eventually rose to a senior management position in charge of digital operations. He left the BBC in 2010 and freelanced briefly before the Highland cow came into his life. He has ended up where he is, he says, by "bizarre serendipity".

So how is FutureLearn different from its American competitors? Nelson claims that FutureLearn alone is optimised for mobile devices but then moves on to what seems to be, in the marketing jargon, its unique selling point. "We started from the belief that learning has to be social," he explains. "If you go on many online learning platforms, you see a succession of videos while message and discussion groups are add-ons. Here, on every page, every video, every article" - he switches on his laptop to demonstrate - "we integrate the discussion right alongside the content. You can click a button, even in the middle of a video, and make a comment, ask a question or answer one. OU facilitators can come in. Learners can choose to follow particular facilitators or fellow students. We have peer review. Learners can write short pieces and then discuss each other's work. We put discussion steps into the course materials.

"We believe that much of the learning comes from the discussion. Nearly 40% of our learners are actively commenting. At the BBC, I ran message boards for Radios 3 and 4. They could be horrible places, with terrible trolling. We have nothing like that. We are already getting superb results, even though the tools are still rudimentary - we shall develop them much further."

By minimising what he calls the "loneliness of distance learning", Nelson says, FutureLearn

is cutting non-completion rates. Of those who begin its six- to eight-week courses (discounting those who sign up but never start), 22% complete a majority of steps and all assessments, a figure that Nelson claims as "two to three times better than other providers". Those who complete can get a "statement of participation", costing £24. "Since you can't prove it was you who did the course," Nelson says, "it's not an authenticated certificate. But people do see it as valuable." On some courses, students can take an exam costing about £120 - set by the university that runs the course - in a test centre which requires ID and supplies invigilators.

Charging for end-of-course assessment is just one way that FutureLearn - a profit-making company owned by the non-profit OU - expects to make money. Others include tuition and the sale of supporting material, such as CDs of Shakespeare plays. Student data, however, will not be sold to private companies. "This is an extremely sensitive area and we want our students to feel they can trust us," Nelson says.

Who are the students? Isn't FutureLearn, like other Moocs, simply offering further advantages to the already advantaged? "I'm very sanguine that the majority have degrees. We're offering demanding courses from leading universities. But that said, 30% don't have a degree, which is quite a large number." Some study for professional development - Nelson mentions dentists scattered across Paraguay who are together studying dental photography - others as preparation for full-time university courses. A large number, however, are leisure learners pursuing knowledge without explicit vocational ambitions.

Will students ever get university degrees, in whole or in part, if they take sufficient FutureLearn courses? Nelson says that's up to the universities; a reasonable answer, but perhaps also an evasive one. So far, one course is recognised by a professional accountancy body so that students who complete it are exempt from one module of its exams. But the universities that provide Moocs, here and in America, are reluctant to offer degree credit.

Like the future of newspapers, the future of universities in a digital world is a mystery to which nobody can give a confident answer. "The internet is disrupting higher education and it's not going away," Nelson says. He's probably right about that. If nothing else, universities will surely stop holding conventional on-campus lectures; what's the point of standing in front of students talking for an hour when there's a superior means of introducing them to new knowledge? But it's hard to believe Moocs will ever replace the dreaming spires of Oxford and Cambridge, neither of which has signed up to FutureLearn, or, indeed, that they pose much threat to other Russell Group universities. The real attraction of elite universities, and the value of their degrees, lies in their exclusivity. Their exacting entry requirements determine their reputation, not the quality of their teaching.

For FutureLearn, says Nelson, "the sky's the limit". That may be true for those who crave learning for its own sake, but not for those who seek the prestige and status of a top-level university degree.

Topics

- Higher education
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MAPPING THE MOOC

Rebecca Paddick checks in with FutureLearn, the UK's leading social learning platform, to map the evolution of the online learning

“I thought I'd just start by reflecting,” stated Simon Nelson, FutureLearn CEO. “We've all seen the way that MOOCs have been developing over the last few years, and we've now successfully navigated the hype and scepticism around the idea of online learning. I think we've come to the end of what was quite a tired narrative about the MOOC,” he explained.

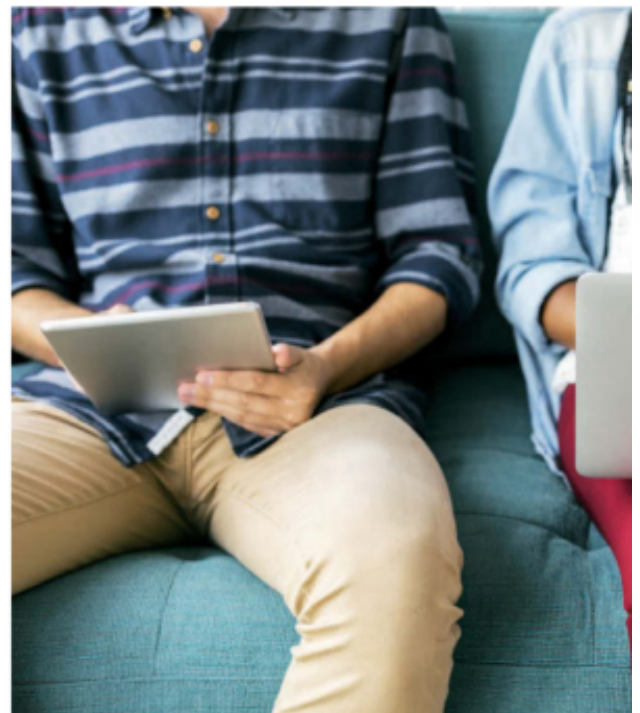
This chat with FutureLearn's leader has been one of many since 2013. I've been checking in with Simon and his team for the past four years, to discuss the growth and development of Massive Open Online Courses (MOOCs) and I've watched the platform grow from a few hundred thousand registered learners, to almost six million sign-ups.

The platform now works with over 120 partners, of whom around 80 are universities – including

around a quarter of the world's top 200 higher education institutions.

“Initially, we knew MOOCs were massively over-hyped,” said Nelson. “When MOOCs didn't deliver the promises to sweep aside traditional education and be a panacea for the educational ills of the world, they were rapidly dismissed by a whole load of people. And even now I come across people who say, ‘Oh MOOCs, that was all a few years ago, wasn't it? That didn't really happen,’ and I have to explain to them that the number of people who have, and who continue to take MOOCs, grows and grows and grows exponentially every year. The number of organisations offering them, the number of courses available, is only going in one direction.”

The platform's next phase has a clear focus on positioning itself as a partner, not just a provider. “We don't



“WE’RE NOT JUST LIFTING AND SHIFTING A DEGREE TO ONLINE. WE’RE RE-THINKING THE WHOLE WAY A DEGREE CAN BE DESIGNED AND WE’RE PUTTING THE LEARNER AT THE HEART OF IT”

want to be your MOOC platform. We want to be your partner in your wider digital transformation of your institution,” said Nelson.

“There is a significant digital shift happening in higher education and MOOCs, while some assumed they would be an end in themselves, we’ve always believed they are a catalyst for that wider digital transformation of the sector and they’ve been a very, very powerful one.”

INTERNATIONAL EXPANSION

FutureLearn’s offering was recently enhanced by the acquisition of five key education institutions in the US. American University, Colorado State University, Penn State University, Purdue University and UVA Darden School of Business have all selected to work with FutureLearn and will run courses throughout 2017.

But cracking the US market hasn’t come without its struggles. America is home to some of the most successful MOOC providers – edX and Coursera have similar (but not quite identical) business models to the UK-based FutureLearn. It was here that Matt Walton, Chief Product Officer at the platform, joined our chat.

“I think it’s fair to say that we provide something different from the alternatives that are out there. The social learning aspects of what our product offers has been very attractive with some of our international partners, in terms of offering a different approach to what some of the existing providers within the US offer.

“This key differential we have is that we put the heaviest focus on the social aspect of learning. Because we came into the market later than a lot of our competitors, we were able to analyse and look at where we thought the real value was and we placed our bets on that social aspect. That is absolutely one of the hottest trends now in the US and internal

higher education, and we’re world leaders in it. We’re not changing our approach, but our approach is gaining more and more credibility.”

THE NEXT CHAPTER

So, with some successful partnerships, at home and abroad, firmly under its belt, a solid reputation and a high-functioning service, where does FutureLearn plan to go from here? “To increase our commercial trajectory to move toward break-even and profitability, and deepen our relationship strategically with our partners,” said Simon.

Introducing a new business model on its open courses is part of this strategy. The platform is now offering a wider range of benefits to learners from the moment they join a course, to which they can upgrade. “They can still do the course for free but there’s an upgrade track on which they can retain access to the course after it’s finished,” explains Matt.

“We’ve done some heavy research into understanding what benefits learners feel they would like to access for a fee, and we will be doing more over the next six months to introduce other commercial and payment models while always protecting the ability of learners to complete a vast amount of the course for free.”

The platform is also aiming to create more coherent portfolios of content in key areas of priority; targeting business and management, healthcare, teaching and digital skills, which are areas in which FutureLearn have particular strength, and identify significant market demand. Simon added: “We are trying to expand the number of courses with meaningful credit and accreditation. It’s quite an interesting shift for us to move from being purely reactive, to much more proactive, and directly working with our partners to create a more coherent portfolio of content.”

A good example of this is the collaboration between



TOP: FutureLearn CEO Simon Nelson
ABOVE: The platform’s Chief Product Officer, Matt Walton

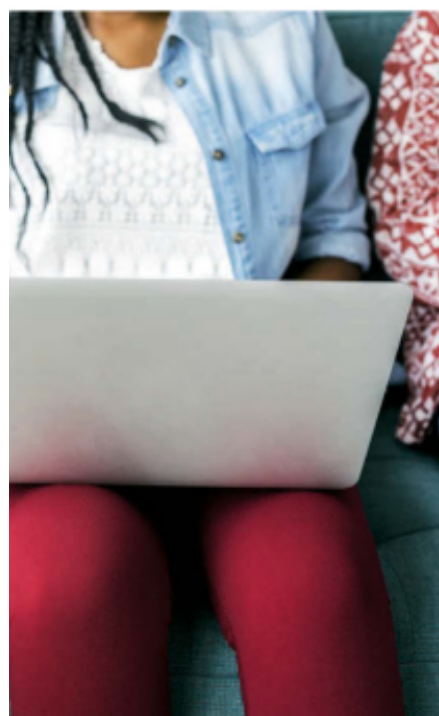


Photo image © Arpa/Shutterstock.com

the Open University and the Chartered Management Institute (CMI). Course completion would give the user one of the awards they need towards chartered management status.

"This arrangement highlights how some MOOCs are getting accreditation from industry bodies and are being recognised by employers as meaningful credentials in their own right," Matt explained, adding: "Traditional education often moves slower than industry, and keeping up to date with sectors or where people's skills need refreshing quite regularly can be a challenge. This MOOC model is certainly having resonance among the employer market as well as among our learners because they see the value of those credentials when they are looking for new employees, or looking to re-train their workforce."

HAND-IN-HAND WITH LIFELONG LEARNING

Matt's above comments tie-in nicely with the idea of using online courses to promote lifelong learning. Earlier this year I attended the launch of a University Alliance report, entitled: Lifelong Learning: Ladder and Lifeline, which responds to the drastic fall in the number of part-time students – down by 44% since 2008/9 – as well as the government's recent Industrial Strategy Green Paper which identified the need for 'ambitious new approaches' to enable lifelong learning.

At the event, the idea that online courses and e-training could be a viable solution to enable those looking to, or having to, retrain was discussed at length, and it was something I was keen to ask the FutureLearn team about.

"We've now launched full post-graduate qualifications on the platform," stated Matt.

"These are a very modular, pay-as-you-go, flexible way of delivering qualifications – a combination of short courses, these programmes are essentially a degree made up of a number of FutureLearn programmes that then allow you to build those credentials up into something that is as meaningful as a post-graduate certificate, diploma or a full masters degree. And that kind of flexibility, to do it throughout



“OVER THE LAST SIX MONTHS THERE’S BEEN A REAL STEP CHANGE IN THE WAY IN WHICH SOME OF OUR UK-BASED PARTNER UNIVERSITIES HAVE STARTED TO ACCELERATE THEIR DIGITAL INITIATIVE”

your life, and alongside your career, is exactly what some sectors need."

This is a huge development for the platform, and indeed for the online learning sector.

It's also something its CEO can see as a rapidly expanding growth area. "This is our progression – from short courses and programmes to offering full online degrees. If you now go to the FutureLearn website, at the top of the page, alongside courses and programmes, we are now very proud to offer degrees which is a very significant step for us.

"But we're not just lifting and shifting a degree on to FutureLearn. We're re-thinking the whole way a degree can be designed and we're putting the learner at the heart of it."

BRINGING THE MOOC FULL CIRCLE

As these next crucial steps in the FutureLearn journey seem to have come about almost organically, I asked the team if offering full online degrees was always in their

business model. "It felt like quite a mountain to climb," explained Simon. "I remember when I was launching FutureLearn and just talking to friends and family and they were saying, 'it sounds interesting, can you get a degree?' and I'd have to say 'no, it's kind of short courses at the moment but they are becoming more valuable'. So it's a very proud moment."

So what are the future challenges for such a forward-thinking company? "The biggest challenge has always been getting universities to move at the pace that we want to," said Simon.

"Over the last six months there's been a real step change in the way in which some of our UK-based partner universities have started to accelerate their digital initiative. We are starting to find that we are getting more in sync with universities in terms of the pace of development, and I think it's going to be an exciting couple of years for the sector." 

FutureLearn in numbers

In December **2012** FutureLearn was formed by The Open University, following the rapid development of massive open online courses (MOOCs) in the global higher education sector



The **12** founding partners were The OU, Birmingham, Bristol, Cardiff, East Anglia, Exeter, King's College, Lancaster, Leeds, Southampton, St Andrews and Warwick

It's first courses began in October

2013



The **first** course to launch was "The secret power of brands," conducted by professor Robert Jones of the University of East Anglia



Each partner university has designed a complete learning experience, presented by **leading** academics in their field



The UK-based platform offers free online courses and degrees from more than **110** world-leading UK and international universities...



...as well as courses from corporates, centres of research excellence and specialist education providers, including; Accenture, the British Council, European Space Agency, Houses of Parliament, Raspberry Pi and Cancer Research UK



Learning and earning

Lifelong learning is becoming an economic imperative

Technological change demands stronger and more continuous connections between education and employment, says Andrew Palmer. The faint outlines of such a system are now emerging

[Print edition](#) | [Special report](#)

Jan 12th 2017

THE RECEPTION AREA contains a segment of a decommissioned Underground train carriage, where visitors wait to be collected. The surfaces are wood and glass. In each room the talk is of code, web development and data science. At first sight the London office of General Assembly looks like that of any other tech startup. But there is one big difference: whereas most firms use technology to sell their products online, General Assembly uses the physical world to teach technology. Its office is also a campus. The rooms are full of students learning and practising code, many of whom have quit their jobs to come here. Full-time participants have paid between £8,000 and £10,000 (\$9,900-12,400) to learn the lingua franca of the digital economy in a programme lasting 10-12 weeks.

General Assembly, with campuses in 20 cities from Seattle to Sydney, has an alumni body of around 35,000 graduates. Most of those who enroll for full-time courses expect them to lead to new careers. The company's curriculum is based on conversations with employers about the skills they are critically short of. It holds "meet and hire" events where firms can see the coding work done by its students. Career advisers help students with their presentation and interview techniques. General Assembly measures its success by how many of its graduates get a paid, permanent, full-time job in their desired field. Of its 2014-15 crop, three-quarters used the firm's career-advisory services, and 99% of those were hired within 180 days of beginning their job hunt.

The company's founder, Jake Schwartz, was inspired to start the company by two personal experiences: a spell of drifting after he realised that his degree from Yale conferred no practical skills, and a two-year MBA that he felt had cost too much time and money: "I wanted to change the return-on-investment equation in education by bringing down the costs and providing the skills that employers were desperate for."

In rich countries the link between learning and earning has tended to follow a simple rule: get as much formal education as you can early in life, and reap corresponding rewards for the rest of your career. The literature suggests that each additional year of schooling is associated with an 8-13% rise in hourly earnings. In the period since the financial crisis, the costs of leaving school early have become even clearer. In America, the unemployment rate steadily drops as you go up the educational ladder.

Many believe that technological change only strengthens the case for more formal education. Jobs made up of routine tasks that are easy to automate or offshore have been in decline. The usual flipside of that observation is that the number of jobs requiring greater cognitive skill has been growing. The labour market is forking, and those with college degrees will naturally shift into the lane that leads to higher-paying jobs.

The reality seems to be more complex. The returns to education, even for the high-skilled, have become less clear-cut. Between 1982 and 2001 the average wages earned by American workers with a bachelor's

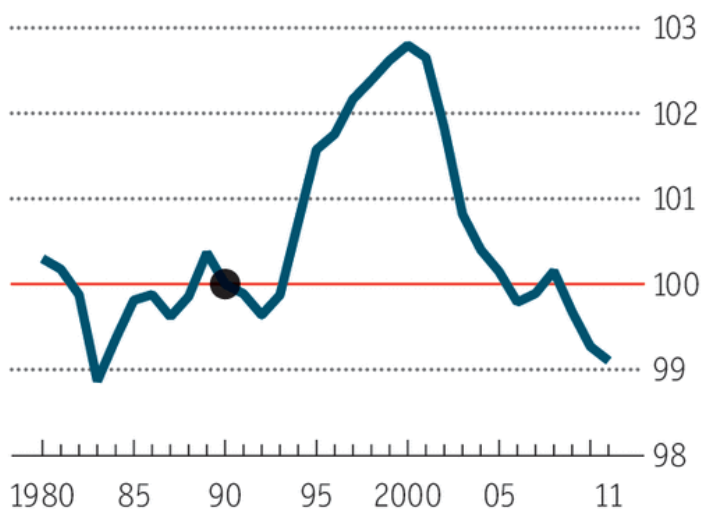
degree rose by 31%, whereas those of high-school graduates did not budge, according to the New York Federal Reserve. But in the following 12 years the wages of college graduates fell by more than those of their less educated peers. Meanwhile, tuition costs at universities have been rising.

A question of degree, and then some

The decision to go to college still makes sense for most, but the idea of a mechanistic relationship between education and wages has taken a knock. A recent survey conducted by the Pew Research Centre showed that a mere 16% of Americans think that a four-year degree course prepares students very well for a high-paying job in the modern economy. Some of this may be a cyclical effect of the financial crisis and its economic aftermath. Some of it may be simply a matter of supply: as more people hold college degrees, the associated premium goes down. But technology also seems to be complicating the picture.

Brain drain

US, average cognitive intensity of tasks done by employed college graduates, 1990=100



Source: "The Great Reversal in the Demand for Skill and Cognitive Tasks", by P. Beaudry, D. Green & B. Sand, NBER Working Paper 18901

Economist.com

trouble. Those with a better education are still more likely to find work, but there is now a fair chance that it will be unenjoyable. Those who never made it to college face being squeezed out of the workforce altogether. This is the argument of the techno-pessimists, exemplified by the projections of Carl-Benedikt Frey and Michael Osborne, of Oxford University, who in 2013 famously calculated that 47% of existing jobs in America are susceptible to automation.

There is another, less apocalyptic possibility. James Bessen, an economist at Boston University, has worked out the effects of automation on specific professions and finds that since 1980 employment has been growing faster in occupations that use computers than in those that do not. That is because

A paper published in 2013 by a trio of Canadian economists, Paul Beaudry, David Green and Benjamin Sand, questions optimistic assumptions about demand for non-routine work. In the two decades prior to 2000, demand for cognitive skills soared as the basic infrastructure of the IT age (computers, servers, base stations and fibre-optic cables) was being built; now that the technology is largely in place, this demand has waned, say the authors. They show that since 2000 the share of employment accounted for by high-skilled jobs in America has been falling. As a result, college-educated workers are taking on jobs that are cognitively less demanding (see chart), displacing less educated workers.

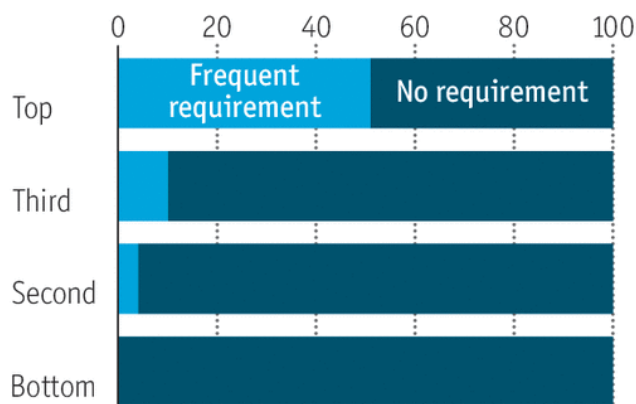
This analysis buttresses the view that technology is already playing havoc with employment. Skilled and unskilled workers alike are in

automation tends to affect tasks within an occupation rather than wiping out jobs in their entirety. Partial automation can actually increase demand by reducing costs: despite the introduction of the barcode scanner in supermarkets and the ATM in banks, for example, the number of cashiers and bank tellers has grown.

But even though technology may not destroy jobs in aggregate, it does force change upon many people. Between 1996 and 2015 the share of the American workforce employed in routine office jobs declined from 25.5% to 21%, eliminating 7m jobs. According to research by Pascual Restrepo of the Massachusetts Institute of Technology (MIT), the 2007-08 financial crisis made things worse: between 2007 and 2015 job openings for unskilled routine work suffered a 55% decline relative to other jobs.

Code to riches

US, % of online job postings requiring coding skills
By income quartile, 2015



Source: Burning Glass Technologies

Economist.com

In many occupations it has become essential to acquire new skills as established ones become obsolete. Burning Glass Technologies, a Boston-based startup that analyses labour markets by scraping data from online job advertisements, finds that the biggest demand is for new combinations of skills—what its boss, Matt Sigelman, calls “hybrid jobs”. Coding skills, for example, are now being required well beyond the technology sector. In America, 49% of postings in the quartile of occupations with the highest pay are for jobs that frequently ask for coding skills (see chart). The composition of new jobs is also changing rapidly. Over the past five years, demand for data analysts has grown by 372%; within that segment, demand for data-visualisation skills has shot up by 2,574%.

A college degree at the start of a working career does not answer the need for the continuous acquisition of new skills, especially as career spans are lengthening. Vocational training is good at giving people job-specific skills, but those, too, will need to be updated over and over again during a career lasting decades. “Germany is often lauded for its apprenticeships, but the economy has failed to adapt to the knowledge economy,” says Andreas Schleicher, head of the education directorate of the OECD, a club of mostly rich countries. “Vocational training has a role, but training someone early to do one thing all their lives is not the answer to lifelong learning.”

Such specific expertise is meant to be acquired on the job, but employers seem to have become less willing to invest in training their workforces. In its 2015 Economic Report of the President, America’s Council of Economic Advisers found that the share of the country’s workers receiving either paid-for or on-the-job training had fallen steadily between 1996 and 2008. In Britain the average amount of training received by workers almost halved between 1997 and 2009, to just 0.69 hours a week.

Perhaps employers themselves are not sure what kind of expertise they need. But it could also be that training budgets are particularly vulnerable to cuts when the pressure is on. Changes in labour-market

patterns may play a part too: companies now have a broader range of options for getting the job done, from automation and offshoring to using self-employed workers and crowdsourcing. “Organisations have moved from creating talent to consuming work,” says Jonas Prising, the boss of Manpower, an employment consultancy.

Add all of this up, and it becomes clear that times have got tougher for workers of all kinds. A college degree is still a prerequisite for many jobs, but employers often do not trust it enough to hire workers just on the strength of that, without experience. In many occupations workers on company payrolls face the prospect that their existing skills will become obsolete, yet it is often not obvious how they can gain new ones. “It is now reasonable to ask a marketing professional to be able to develop algorithms,” says Mr Sigelman, “but a linear career in marketing doesn’t offer an opportunity to acquire those skills.” And a growing number of people are self-employed. In America the share of temporary workers, contractors and freelancers in the workforce rose from 10.1% in 2005 to 15.8% in 2015.

Reboot camp

The answer seems obvious. To remain competitive, and to give low- and high-skilled workers alike the best chance of success, economies need to offer training and career-focused education throughout people’s working lives. This special report will chart some of the efforts being made to connect education and employment in new ways, both by smoothing entry into the labour force and by enabling people to learn new skills throughout their careers. Many of these initiatives are still embryonic, but they offer a glimpse into the future and a guide to the problems raised by lifelong reskilling.

Quite a lot is already happening on the ground. General Assembly, for example, is just one of a number of coding-bootcamp providers. Massive open online courses (MOOCs) offered by companies such as Coursera and Udacity, feted at the start of this decade and then dismissed as hype within a couple of years, have embraced new employment-focused business models. LinkedIn, a professional-networking site, bought an online training business, Lynda, in 2015 and is now offering courses through a service called LinkedIn Learning. Pluralsight has a library of on-demand training videos and a valuation in unicorn territory. Amazon’s cloud-computing division also has an education arm.

Universities are embracing online and modular learning more vigorously. Places like Singapore are investing heavily in providing their citizens with learning credits that they can draw on throughout their working lives. Individuals, too, increasingly seem to accept the need for continuous rebooting. According to the Pew survey, 54% of all working Americans think it will be essential to develop new skills throughout their working lives; among adults under 30 the number goes up to 61%. Another survey, conducted by Manpower in 2016, found that 93% of millennials were willing to spend their own money on further training. Meanwhile, employers are putting increasing emphasis on learning as a skill in its own right.

This article appeared in the Special report section of the print edition under the headline "Learning and earning"



Learning and earning: The elephant in the truck

Retraining low-skilled workers

Systems for continuous reskilling threaten to buttress inequality

Special report
Jan 12th 2017

IMAGINE YOU ARE a 45-year-old long-distance lorry driver. You never enjoyed school and left as soon as you could, with a smattering of qualifications and no great love of learning. The job is tiring and solitary, but it does at least seem to offer decent job security: driver shortages are a perennial complaint in the industry, and the average age of the workforce is high (48 in Britain), so the shortfalls are likely to get worse. America’s Bureau of Labour Statistics (BLS) says there were 1.8m truckers in 2014 and expects a 5% rise in their number by 2024. “As the economy grows, the demand for goods will increase and more truck drivers will be needed to keep supply chains moving,” predicts the BLS website, chirpily.

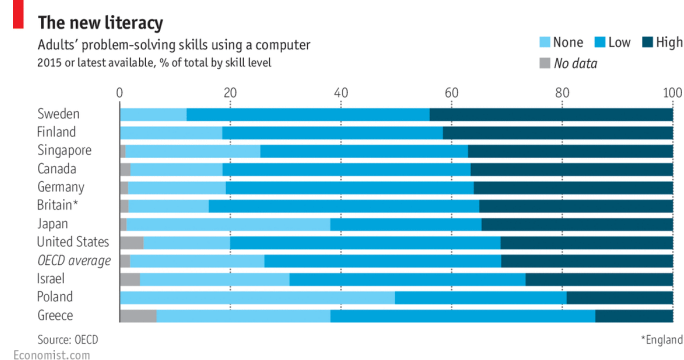
But the future might unfold very differently. For all the excitement over self-driving passenger cars, the freight industry is likely to adopt autonomous vehicles even faster. And according to a report in 2014 by Morgan Stanley, a bank, full automation might reduce the pool of American truck drivers by two-thirds. Those projections came hedged with caveats, and rightly so. The pace of adoption may be slowed by regulation. Drivers may still be needed to deal with unforeseen problems; if such jobs require more technical knowledge, they may even pay better. Employment in other sectors may grow as freight costs come down. But there is a chance that in the not too distant future a very large number of truckers will find themselves redundant. The implications are immense.



Knowing when to jump is one problem. For people with decades of working life still ahead of them, it is too early to quit but it is also risky to assume that nothing will change. Matthew Robb of Parthenon-EY, a consultancy, thinks that governments should be talking to industry bodies about the potential for mass redundancies and identifying trigger points, such as the installation of sensors on motorways, that might prompt retraining. “This is a boiling-frog problem,” he says. “It is not thought about.”

For lower-skilled workers of this sort the world of MOOCs, General Assembly and LinkedIn is a million miles away. Around 80% of Coursera’s learners have university degrees. The costs of reskilling, in terms of time and money, are easiest to bear for people who have savings, can control their working hours or work for companies that are committed to upgrading their workforce. And motivation is an issue: the tremendous learning opportunities offered by the internet simply do not appeal to everyone.

Whosoever hath not



The rewards of retraining are highest for computing skills, but there is no natural pathway from trucker to coder. And even if there were, many of those already in the workforce lack both the confidence and the capability to make the switch. In its Programme for the International Assessment of Adult Competencies, the OECD presents a bleak picture of skills levels in 33 member

countries (see chart). One in five adults, on average, has poor reading and numeracy skills. One in four has little or no experience of computers. On a measure of problem-solving ability using technology, most adults are at or below the lowest level of proficiency.

Moreover, learning is most effective when people are able to practise their new skills. Yet many jobs, including lorry-driving, afford little such opportunity, and some of them are being deskilled further. Research by Tom Higgins of Cardiff University suggests that the numeracy requirements for retail assistants and care-home workers in Britain went down between 1997 and 2012. The head of one of the world's biggest banks worries that a back-office operation in India has disaggregated its work into separate tasks so effectively that employees are no longer able to understand the processes as a whole, let alone make useful suggestions for improving them.

So the truckers' dilemma will be very hard to solve. "It's difficult when you don't have a good answer even in an ideal world," says Jesper Roine, an economist who sat on a Swedish commission to examine the future of work. But as a thought experiment it highlights some of the problems involved in upgrading the stock of low-skilled and mid-skilled workers. Any decent answer will need a co-ordinated effort to bring together individuals, employers and providers of education. That suggests a role for two entities in particular.

One is trade unions. They have an industry-wide view of trends that may not be available to smaller employers. They can also accompany people throughout their working lives, which may become increasingly important in a world of rising self-employment. Denmark's tripartite system, for example, binds together employers, government and unions. Firms and unions get together to identify skills needs; collective-bargaining agreements enshrine rights to paid leave for training. The country's famed "flexicurity" system offers unemployed workers a list of 258 vocational-training programmes.

In Britain a well-regarded programme called UnionLearn uses union representatives both to inform workers about training options and to liaise with employers on workers' requests for training. Employees seem more likely to discuss shortfalls in basic skills with union representatives than with managers. An analysis by academics at Leeds University Business School shows that between 2001 and 2013 union members in Britain were a third more likely to have received training than non-unionised workers.

The second entity is government. There is much talk about lifelong learning, though few countries are doing much about it. The Nordics fall into this less populated camp. But it is Singapore that can lay claim to the most joined-up approach with its SkillsFuture initiative. Employers in the city-state are asked to spell out the changes, industry by industry, that they expect to happen over the next three to five years, and to identify the skills they will need. Their answers are used to create "industry transformation maps" designed to guide individuals on where to head.

Since January 2016 every Singaporean above the age of 25 has been given a S\$500 (\$345) credit that can be freely used to pay for any training courses provided by 500 approved providers, including universities and MOOCs. Generous subsidies, of up to 90% for Singaporeans aged 40 and over, are available on top of this credit. The programme currently has a budget of S\$600m a year, which is due to rise to S\$1 billion within three years. According to Ng Cher Pong, SkillsFuture's chief executive, the returns on that spending matter less than changing the mindset around continuous reskilling.

Some programmes cater to the needs of those who lack basic skills. Tripartite agreements between unions, employers and government lay out career and skills ladders for those who are trapped in low-wage occupations. Professional-conversion programmes offer subsidised training to people switching to new careers in areas such as health care.

Given Singapore's size and political system, this approach is not easily replicated in many other countries, but lessons can still be drawn. It makes sense for employers, particularly smaller ones, to club together to signal their skills needs to the workforce at large. Individual learning accounts have a somewhat chequered history—fraudulent training providers helped scupper a British experiment in the early 2000s—but if well designed, they can offer workers educational opportunities without being overly prescriptive.

Any fool can know

In June 2016, this newspaper surveyed the realm of artificial intelligence and the adjustments it would require workers to make as jobs changed. “That will mean making education and training flexible enough to teach new skills quickly and efficiently,” we concluded. “It will require a greater emphasis on lifelong learning and on-the-job training, and wider use of online learning and video-game-style simulation.”

The uncertainties around the pace and extent of technological change are enormous. Some fear a future of mass unemployment. Others are sanguine that people will have time to adapt. Companies have to want to adopt new technologies, after all, and regulators may impede their take-up. What is not in doubt is the need for new and more efficient ways to develop and add workplace skills.

The outlines of a new ecosystem for connecting employment and education are becoming discernible

The faint outlines of a new ecosystem for connecting employment and education are becoming discernible. Employers are putting greater emphasis on adaptability, curiosity and learning as desirable attributes for employees. They are working with universities and alternative providers to create and improve their own supply of talent. Shorter courses, lower costs and online delivery are making it easier for people to combine work and training. New credentials are being created to signal skills.

At the same time, new technologies should make learning more effective as well as more necessary. Virtual and augmented reality could radically improve professional training. Big data offer the chance for more personalised education. Platforms make it easier to connect people of differing levels of knowledge, allowing peer-to-peer teaching and mentoring. “Education is becoming flexible, modular, accessible and affordable,” says Simon Nelson, the boss of FutureLearn, the Open University MOOC.

But for now this nascent ecosystem is disproportionately likely to benefit those who least need help. It concentrates on advanced technological skills, which offer the clearest returns and are relatively easy to measure. And it assumes that people have the money, time, motivation and basic skills to retrain.

Thanks to examples like Singapore's, it is possible to imagine ways in which continuous education can be made more accessible and affordable for the mass of citizens. But it is as easy—indeed, easier—to imagine a future in which the emerging infrastructure of lifelong learning reinforces existing advantages. Far from alleviating the impact of technological upheaval, that would risk exacerbating inequality and the social and economic tensions it brings in its wake.

This article appeared in the Special report section of the print edition under the headline "The elephant in the truck"

May 4, 2017 by Goldie Blumenstyk

Purdue's Faculty Senate Seeks to Rescind Kaplan Deal

Saying Purdue University's purchase of Kaplan University violated "both common-sense educational practice and respect for the Purdue faculty," the university's Faculty Senate voted overwhelmingly on Thursday to ask Purdue's leaders to reconsider the deal.

Following a two-hour meeting, the Senate voted, 46 to 8 with one abstention, on a resolution calling on the president and Board of Trustees "to rescind any decisions, to the degree possible, made without faculty input." The vote came just one week after Purdue's surprise announcement of its deal to buy the 32,000-student university in an effort to jump-start its online profile.

Since then a number of questions have arisen about the deal, prompted in part by reporting by the *Journal and Courier*, that the new arm of Purdue would not be subject to state public-records laws.

The Indiana Conference of the American Association of University Professors has also come out against the deal.

Before the Faculty Senate vote, Purdue's president, Mitch Daniels, spent an hour answering questions about the deal, insisting to faculty members that the university had examined all the key issues in the five and a half months it spent secretly negotiating and vetting the plan. "This is the most risk-free relationship I can imagine," he told them, while also criticizing several of their questions as confused, non sequiturs, and "a mess."

When one professor cited concerns that had been raised in a commentary published in *The Chronicle*, Mr. Daniels brushed off the question and instead attacked the article's author, Robert Shireman, claiming incorrectly that he had left the U.S. Department of Education under a cloud.

Mr. Daniels also claimed that Mr. Shireman had been "caught consorting with short sellers" in connection with his work at the department during the early days of the Obama administration, when he helped write regulations that toughened oversight of for-profit colleges. Mr. Shireman's conduct at the time was the subject of an investigation, prompted by complaints from political supporters of the for-profit-college industry, but no findings or charges were ever issued.

"It's baloney," Mr. Shireman said of the allegations revived by Mr. Daniels. He also took to Twitter to ask the Purdue president for an apology and retraction of his comments.

It is unclear what weight the Faculty Senate's resolution will carry. The next step in the approval process for the Kaplan deal is a vote by the Indiana Commission on Higher Education, but based on a statement that its commissioner, Teresa Lubbers, issued just minutes after the faculty vote, approval there seems all but assured.

The commission "looks forward to working with Purdue University to develop the procedures required for authorization of this new state education-affiliated institution," the statement said. "As higher education evolves to serve more students in innovative ways, we will seek to ensure that new models enhance access, affordability, and academic quality for students."

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COMMENTARY

The Innovator's Dilemma Hits Higher Ed

Purdue's acquisition of Kaplan University is risky, unconventional, unexpected—and smart.



Purdue President Mitch Daniels in West Lafayette, Ind., 2012. PHOTO: MICHAEL CONROY/ASSOCIATED PRESS

By Alana Dunagan

May 15, 2017 7:00 p.m. ET

Last month's announcement that Indiana's Purdue University would acquire the for-profit Kaplan University shocked the world of higher education. The Purdue faculty are up in arms. The merger faces a series of regulatory obstacles. And it's unclear whether the "New U," as the entity is temporarily named, can be operationally viable or financially successful.

But Purdue's president, Mitch Daniels, is willing to give it a shot.

The venture is unexpected, unconventional and smart. The nature of the partnership—in which Kaplan will transfer its assets to Purdue, a public university—is unprecedented. It's also a rare instance of attempted self-disruption.

There are lessons here from the business world. In the seminal 1997 book, "The Innovator's Dilemma," Harvard professor Clayton Christensen describes how leading companies can do everything "right" and still be thwarted by disruptive competitors. In an effort to appease stakeholders, leaders focus resources on activities that target current customers, promise higher profits, build prestige, and help them play in substantial markets. As Mr. Christensen observes, they play the game the way it's supposed to be played. Meanwhile, a disruptive innovation is changing all the rules.

Facing the innovator's dilemma requires leaders to think beyond their current business model, identify the strategic conundrum in which they find themselves, and accurately assess their organization's capabilities to compete on entirely new terms. That may sound simple, but in practice it's often deeply counterintuitive. Initially, disruptive

innovations offer products and services that underperform existing options, create lower profits, and can be sold only in less significant markets. That describes the earliest days of Airbnb, Amazon, Netflix, Uber, Wikipedia and a slew of other low-end providers that went on to dominate their markets.

The higher-education industry, full of brilliant and competent leaders, is ripe for disruption. Despite mounting political pressure—not to mention the struggles of indebted alumni—most college presidents believe that their institutions are providing students with good value. By and large, they remain comfortable making small, marginal tweaks to their business models. In the meantime, college becomes ever more expensive.

In contrast, Mr. Daniels has a long history of bold, innovative moves. He was an early supporter of Western Governors University, a leading competency-based education provider. He has also encouraged the development of income-share agreements at Purdue, which may make a big dent in the student-loan crisis.

Mr. Daniels explicated his motivations in an addendum to his announcement of the acquisition. He detailed three key “realities.”

- *Millions of potential students are unserved by the current higher education system.* No one would have faulted Mr. Daniels for limiting his view to the students already served by Purdue. It's what most college presidents do. But looking past the confines of the current, mostly traditional-aged student body could produce big opportunities. By expanding access to thousands of potential students in Indiana and millions beyond, Purdue is recalibrating toward an unserved population—a key characteristic of disruptive innovation. It is rejecting a myopic status quo and instead making a strategic investment in nontraditional students who have been historically ignored.

- *Online education is growing.* Its expansion is impossible to ignore, but plenty of college administrators are in denial about its future impact. Led by nontraditional students, online enrollments continue to grow steadily. As of 2014, 29% of undergraduates were taking at least one class online; nearly half of those were taking their entire program online. Among graduate students, over a quarter are earning their degrees exclusively online.

When used to lower cost and increase access, these programs become the “enabling technology” requisite for disruption. That's not to say that all online programs are disruptive—many college administrators simply tack on digital offerings to their existing business models, with programs often costing just as much as brick-and-mortar options. But as leaders begin combining these technologies with disruptive business models that make college radically affordable, millions of underserved potential students will finally be able to access college.

- *Purdue can't build online capabilities, so it should buy them.* Admitting that something needs to be done—and that the organization doesn't have the capability to get it done—is tough. Purdue estimated that it would take at least three years to build an online undergraduate program, assuming there was sufficient internal political will. That made acquisition a much faster and more certain path. Importantly, the acquisition route also enabled Purdue to structure its online efforts as an autonomous unit—the linchpin of self-disruption.

A further challenge of the innovator's dilemma is that even after leaders realize they are being disrupted, disruptive innovations rarely thrive in the context of the traditional

business model. Mr. Daniels has recognized that pitfall. Rather than attempt a true merger of Kaplan into Purdue, the new entity will remain autonomous. This structure emulates that of other disruptive schools, such as Southern New Hampshire University, which have moved beyond a brick-and-mortar legacy to become major players in online learning.

The innovator's dilemma is one of the toughest strategic predicaments an organization can face, and in an era marked by technological upheaval and economic transition it is more common than ever. Mr. Daniels is setting Purdue on the right course, for good reasons, and he deserves a great deal of credit. As the saying goes, a journey of a thousand miles begins with a single step. For Purdue, the next thousand miles will consist of navigating regulatory approvals, winning the support of stakeholders, and, not least, the hard work of building New U. We can be hopeful, on behalf of those left behind by today's higher education system, that Purdue treads a path that others can follow.

Ms. Dunagan is a research fellow at the Clayton Christensen Institute.

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COMMENTARY

3 Reasons to Applaud Purdue's Kaplan Deal

By Arthur Levine | MAY 19, 2017

One of the nation's great public science, technology, and engineering universities, Purdue University, recently announced it was acquiring Kaplan Higher Education, a 15-campus for-profit postsecondary-education chain. While the move has drawn a fair amount of early criticism, this may be a historically important initiative, one that should be applauded by both higher-education institutions and those they serve.

First, the Purdue-Kaplan deal promises to raise the quality of American postsecondary education in a dramatic and very visible fashion. Kaplan was one of the for-profit chains cited in the U.S Senate Committee on Health, Education, Labor, and Pensions' scathing 2012 report on the for-profit higher-education industry, particularly publicly traded chains. These institutions were criticized for low admission standards and graduation rates; high tuitions and student-loan default rates; predatory recruitment practices; and gaming the federal financial-aid regulations, among other abuses. The U.S. Senate report called for greater oversight of the industry. To date, large segments of the industry and some accreditors have resisted the recommendations of that report.

The Kaplan acquisition — in which Purdue controls academics and Kaplan retains backroom management — has the promise of setting higher standards for for-profits than government or accreditors have succeeded at doing. Purdue,

which plans to turn the for-profit institution into a public university, can now offer a visible "no excuses" demonstration of how academic standards can be raised at institutions like Kaplan.

Purdue also has an opportunity to learn from Kaplan. Partially but certainly not wholly as the result of predatory recruiting, for-profits have been far more successful than traditional higher education at attracting and enrolling students who are underrepresented economically, socially, ethnically, racially, and geographically. There are transferable lessons here, and increasing diversity would enrich Purdue and possibly serve as a model for the nation's other research universities.

Second, in the current climate of rising higher-education costs, diminishing real-dollar government funding, and demographically driven enrollment shortfalls in the Northeast, Mid-Atlantic, and Midwest states, institutional mergers are an essential survival tactic for many colleges. Purdue's acquisition of Kaplan makes it clear that merger is not the lot of only troubled colleges. It shows that the joining of institutions can be a vehicle for strengthening even the nation's prestigious and selective colleges.

Finally, Purdue's acquisition of Kaplan points to the future of American higher education. Our current system of colleges and universities was created for an industrial society. However, this nation is making a transition from a national, analog, industrial economy to a global, digital, information economy. Only once before has the country experienced as profound a transformation, when America changed from a local, agrarian economy to a national, industrial society. The agrarian colleges were remade during that era to create the modern system of higher education, including a panoply of new and different types of institutions — universities like Johns Hopkins and Cornell, technical schools like MIT, and junior college (which would come to be called community colleges).

However, one set of institutions was created to straddle both worlds — land-grant colleges. These institutions were designed to embrace both higher education's heritage and a new world being born. The federal government gave public land to each state to be sold to create colleges that would offer both an agrarian classical curriculum and an industrial-era mechanical-arts program. Purdue University was one of those institutions.

With the acquisition of Kaplan, Purdue is straddling the industrial and digital worlds and thereby updating the mission of the land-grant college as a transitional university that leads higher education into the future. Purdue stands as one of the nation's great industrial-era universities. In recent years, it has made notable forays into the digital era in its research and programs. However, the Kaplan deal marks a dramatic change in scale. It represents a merger of both eras, to which Kaplan brings more than 30,000 students and mass online programs to the storied Indiana university.

The Purdue-Kaplan deal may be historically important in embracing digital higher education, once again joining the present and the future and creating an institution that will guide higher education into tomorrow.

Purdue's vision in taking this bold step should be applauded.

Arthur Levine is the president of the Woodrow Wilson National Fellowship Foundation and president emeritus of Teachers College, Columbia University.



The Land-Grant Tradition

ASSOCIATION OF PUBLIC AND LAND-GRANT UNIVERSITIES

THE
Land-Grant
TRADITION

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Layout and design by Cutting Edge Design

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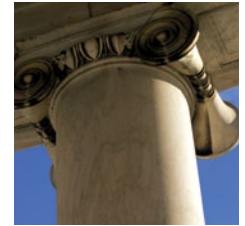


The Land-Grant Tradition

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What is a Land-Grant College?



WHAT: A land-grant college or university is an institution that has been designated by its state legislature or Congress to receive the benefits of the Morrill Acts of 1862 and 1890. The original mission of these institutions, as set forth in the first Morrill Act, was to teach agriculture, military tactics, and the mechanic arts as well as classical studies so members of the working classes could obtain a liberal, practical education.

Over the years, land-grant status has implied several types of federal support. The first Morrill Act provided grants in the form of federal lands to each state for the establishment of a public institution to fulfill the act's provisions. At different times money was appropriated through legislation such as the second Morrill Act and the Bankhead-Jones Act, although the funding provisions of these acts are no longer in effect.

A key component of the land-grant system is the agricultural experiment station program created by the Hatch Act of 1887. The Hatch Act authorized direct payment of federal grant funds to each state to establish an agricultural experiment station in connection with the land-grant institution there. The amount of this appropriation varies from year to year and is determined for each state through a formula based on the number of small farmers there. A major portion of the federal funds must be matched by the state.

To disseminate information gleaned from the experiment stations' research, the Smith-Lever Act of 1914 created a Cooperative Extension Service associated with each land-grant institution. This act authorized ongoing federal support for extension services, using a formula similar to the Hatch Act's to determine the amount of the appropriation. This act also requires states to provide matching funds in order to receive the federal monies.

WHY: Passage of the First Morrill Act (1862) reflected a growing demand for agricultural and technical education in the United States. While a number of institutions had begun to expand upon the traditional classical curriculum, higher education was still widely unavailable to many agricultural and industrial workers. The Morrill Act was intended to provide a broad segment of the population with a practical education that had direct relevance to their daily lives.

The second Morrill Act (1890) sought to extend access to higher education by providing additional endowments for all land-grants, but prohibiting distribution of money to states that made distinctions of race in admissions. However, states that provided a separate land-grant institution for blacks were eligible to receive the funds. The institutions that, as a result of this act, were founded or designated the land-grant for blacks in each of the then-segregated Southern states came to be known as "the 1890 land-grants." The Native American tribal colleges are sometimes called the "1994 land-grants," in reference to the year they were granted land-grant status.

WHERE: There is one land-grant institution in every state and territory of the United States, as well as the District of Columbia. Certain southern states have more than one land-grant institution as a result of the second Morrill Act, and some western and plains states have several, including 1994 land-grant tribal colleges.

WHO: Justin Smith Morrill, a representative and later a senator from Vermont, sponsored the land-grant legislation that bears his name and is generally credited as having secured its passage. Prior to Morrill's support for land-grant legislation, Jonathan Baldwin Turner, a Yale-educated farmer, newspaper editor, and college professor, made education for the working class his cause in the mid-19th century. His "Plan for a State University for the Industrial Classes" advanced ideas that are now fundamental to the land-grant system, such as experimental research in agriculture.

WHEN: Morrill first introduced a land-grant bill in Congress in 1857, which after much struggle was passed in 1859 only to be vetoed by President James Buchanan. In 1861 Morrill introduced another land-grant bill that increased to 30,000 acres the grant for each senator and representative and added a requirement that recipient institutions teach military tactics. The newly felt need for trained military officers to fight in the Civil War, along with the absence of Southern legislators who had opposed the earlier bill, helped the Morrill Act through Congress in just six months. President Abraham Lincoln signed it into law on July 2, 1862.

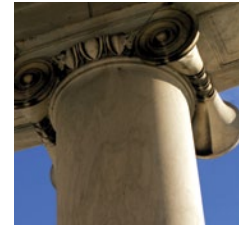
HOW: The U.S. Department of Agriculture (USDA) plays a large role in the administration of federal land-grant funds and the coordination of agricultural land-grant activities at the national level. The USDA's Cooperative State Research Service (CSRS), for example, administers both Hatch Act and Morrill-Nelson funds. A portion of the Hatch Act funding supports regional research, enabling scientists to collaborate and coordinate activities and thus avoid duplication of research efforts. The Extension Service of the USDA administers Smith-Lever funding, cooperating with state governments (which also provide funding for extension programs) to set priorities and facilitate the sharing of information within the entire Cooperative Extension System.

Because the 1890 land-grants do not receive Hatch Act or Smith-Lever funds, special programs have been created

to help finance agricultural research and extension at these institutions. The Evans-Allen program supports agricultural research with funds equal to at least 15 percent of Hatch Act appropriations. Another program funds extension activities at the 1890 land-grants with an emphasis on reaching socially and economically disadvantaged people.

Today, America's land-grant universities continue to fulfill their democratic mandate for openness, accessibility, and service to people, and many of these institutions have joined the ranks of the nation's most distinguished public research universities. Through the land-grant university heritage, millions of students are able to study every academic discipline and explore fields of inquiry far beyond the scope envisioned in the original land-grant mission.

Development of the Land-Grant System: 1862–1994



SINCE THEIR ESTABLISHMENT, land-grant colleges and universities have grown to represent to the world a unique system of widely accessible higher education. In the colonial days in the United States, higher education was available only at a few institutions such as Harvard, Yale, and William and Mary. These institutions at different times were subject to varying degrees of public control but were essentially privately controlled. After the Revolutionary War, the states began to organize universities as publicly controlled institutions. They were not essentially different in academic orientation from the privately controlled ones, which by that time had grown relatively strong and were setting the pace for the development of college education throughout the country.

Classical or Professional

During the first half of the 19th century, the two types of colleges and universities, publicly controlled and privately controlled, developed side-by-side. Both were greatly influenced by the European universities, which had educated many of their leading professors. But these European universities were organized to serve a society not predominantly democratic. University education was for the male leisure classes, government leaders, and members of the professions.

At first, American institutions, functioning in somewhat the same fashion, offered chiefly the classical and professional curricula. Although the importance of science was gaining recognition, scientific education was not widely available. But by the middle of the 19th century, the general and scientific press were making widespread demands for more agricultural and technical education. Agricultural societies in many states also were insisting that colleges be available where students could study agriculture. One of the most notable campaigns was led by Jonathan Baldwin Turner.

A Yale graduate who had been a farmer, newspaper editor, and professor at Illinois College, Turner championed the cause of the laboring class. His “Plan for a State University for the Industrial Classes,” presented in 1850, contained many of the ideas now considered fundamental to the land-grant system, such as experimental research in agriculture. (Although the relationship between Turner’s

plan and the eventual land-grant legislation is unclear, Turner saw his intent realized in Illinois 20 years later upon the establishment of the University of Illinois under the provisions of the Morrill Act.)

Vermont Representative Justin Smith Morrill introduced his first land-grant bill in Congress in 1857. After more than a year of legislative maneuvering, Congress passed the Morrill Act of 1859. President Buchanan vetoed it, essentially on the grounds that it violated the traditional policy of the federal government, which until then had left control of education to the states.

In 1861 Morrill again introduced the land-grant bill with, among other changes, the provision that the proposed institutions teach military tactics. Given the need for military officers that had been created by the Civil War, along with the absence of Southern legislators who previously had opposed the bill, the land-grant act faced a friendlier climate the second time through Congress. The Morrill Act was passed again and signed by President Lincoln on July 2, 1862.

The Purpose

There has been much discussion since the passage of the first Morrill Act as to its true intent. In the act the purpose is stated in the following words:

... the endowment, support, and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislatures of the states may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life.¹

Speaking at the Massachusetts Agricultural College in 1887, 25 years after passage of the Act, Senator Morrill again set forth his views on the general purpose of the Morrill Act in the following words:

The land-grant colleges were founded on the idea that a higher and broader education should be placed in every State within the reach of those

whose destiny assigns them to, or who may have the courage to choose industrial locations where the wealth of nations is produced; where advanced civilization unfolds its comforts, and where a much larger number of the people need wider educational advantages, and impatiently await their possession It would be a mistake to suppose it was intended that every student should become either a farmer or a mechanic when the design comprehended not only instruction for those who may hold the plow or follow a trade, but such instruction as any person might need—with “the world all before them where to choose”—and without the exclusion of those who might prefer to adhere to the classics.²

Speaking before the Vermont Legislature in 1888, Senator Morrill said:

Only the interest from the land-grant fund can be expended, and that must be expended, first—without excluding other scientific and classical studies—for teaching such branches of learning as are related to agriculture and the mechanic arts—the latter as absolutely as the former. Obviously not manual, but intellectual instruction was the paramount object. It was not provided that agricultural labor in the field should be practically taught, and more than that the mechanical trade of a carpenter or blacksmith should be taught. Secondly, it was a liberal education that was proposed. Classical studies were not to be excluded, and, therefore, must be included. The Act of 1862 proposed a system of broad education by colleges, not limited to a superficial and dwarfed training, such as might be supplied by a foreman of a workshop or by a foreman of an experimental farm. If any would have only a school with equal scraps of labor and of instruction, or something other than a college, they would not obey the national law...

The fundamental idea was to offer an opportunity in every State for a liberal and larger education to larger numbers, not merely to those destined to sedentary professions, but to those much needing higher instruction for the world’s business, for the industrial pursuits and professions of life.³

From the legislation itself and from Senator Morrill’s statements it seems clear that at least three purposes were embodied in the legislation:

1. A protest against the dominance of the classics in higher education;

2. A desire to develop at the college level instruction relating to the practical realities of an agricultural and industrial society; and
3. An attempt to offer to those belonging to the industrial classes preparation for the “professions of life.”⁴

Federal Funding

From these purposes has grown a system of colleges and universities managed by each state but conforming to certain broad policy stipulations of federal law. The federal support contemplated in the initial Morrill Act was to be the income from public lands (30,000 acres or equivalent in scrip for each representative and senator) made available to each state. The state was expected to contribute to the maintenance of its land-grant institution as well as to provide its buildings.

From this modest beginning, the federal government has significantly expanded its contributions to the land-grant colleges and universities. Recognizing the need for research as a basis for developing agriculture, Congress passed the Hatch Act in 1887. This authorized federal funding for an agricultural experiment station in connection with each land-grant institution.

In 1890, the second Morrill Act was passed, supplementing by direct appropriation the income from the land grants. To receive the money a state had to show that race or color was not an admissions criterion, or else designate a separate land-grant college for blacks. Thus was born in the then-segregated South a group of institutions known as the “1890 land-grants.”

In 1914 the Smith-Lever Act established the system of cooperative extension services to bring people the benefits of current developments in the field of agriculture, home economics and related subjects.

Land-grant institutions, designed to foster a program of education suited to the needs of the agricultural and industrial classes, came to encompass a program of on-campus instruction, research, and off-campus extension work. In the decades following 1914, several acts were passed expanding the scope and increasing the support of all three aspects of the program. Now, in addition to the income from the original land grants, the appropriations of federal funds to aid the states in the maintenance of land-grant institutions amount to more than \$550 million annually.

These funds are distributed to the states on several different bases. Some funds go in equal amounts to all states; some go to the states on the basis of their farm population, or on their total population in relation to the total population of the United States.

The USDA plays a key role in the administration of federal land-grant funds and the coordination of land-grant

activities at the national level. The USDA's Cooperative State Research Service (CSRS), for example, administers both Hatch Act and Morrill-Nelson funds. The Extension Service of the USDA administers Smith-Lever funding, though it cooperates with state governments—which provide additional funding for extension—in setting priorities and sharing information nationally.

Because the 1890 land-grants do not receive Hatch Act or Smith-Lever funds, special programs have been created to help finance agricultural research and extension at these institutions. The Evans-Allen program supports agricultural research with funds equal to at least 15 percent of Hatch Act appropriations. Another program funds extension activities at the 1890 land-grants with an emphasis on reaching socially and economically disadvantaged people.

Later Additions to the Land-Grant System

In recent decades the land-grant system has expanded to accommodate additional U.S. jurisdictions. The University of the District of Columbia, arguing that it was “the last substantial area in the nation without the services of a land-grant college,” received land-grant status and a \$7.24 million endowment in lieu of a land grant in 1967. Beginning in 1971 Guam, Micronesia, American Samoa, Northern Marianas, and the Virgin Islands repeated the argument that these territories were “the only areas under the American flag which have not been allowed to participate in the land-grant college program.” Their land-grant status was approved in 1972 in a Special Education Amendment, each receiving a \$3 million endowment instead of land or land scrip. Research and extension funds are appropriated to these institutions on a similar basis as they are to other land-grant universities.

The Tribal Colleges and Universities

A nearly two-year campaign by the tribal colleges that comprise the American Indian Higher Education Consortium (AIHEC) was brought to a successful outcome in October 1994, when Congress passed legislation granting them land-grant status. In November, the board of the National Association of State Universities and Land-Grant Colleges (now Association of Public and Land-grant Universities), which had strongly endorsed the campaign, voted to admit AIHEC as a system member of the association with one representative as a member of the organization's Council of Presidents. In January 1995, AIHEC became the Association's newest member.

Land-grant status was conferred on 29 Native American colleges in 1994 as a provision of the Elementary and

Secondary Education Reauthorization Act. (Since then several other tribal colleges have also been given land-grant status.) The bill also authorized a \$23 million endowment for them, to be built up over five years. The colleges were to receive interest payments from the endowment each year.

In addition, the legislation authorized a \$1.7 million challenge grant program for higher education programs in agriculture and natural resources, much like the successful program at the 1890 colleges, and \$50,000 per school for higher education in agriculture and natural resources (similar to the original Morrill-Nelson funds).

The legislation also provided \$5 million to go to the Cooperative Extension Service of the 1862 land-grant institutions in states that also have tribal colleges. The 1862 institutions were to cooperate with the tribal colleges in setting up joint agricultural extension programs focused on the needs of the Native American institutions, as identified by the tribal colleges.

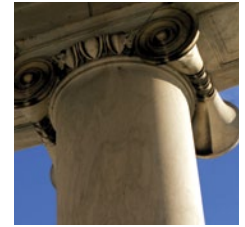
The colleges named in the legislation comprise all the accredited Tribal Colleges and Universities (TCUs) in the nation. The TCUs are located on more than 75 sites in 15 states providing access to higher education to over 80 percent of Indian Country. Collectively, the TCUs enroll 19,000 students and provide vital services to more than 47,000 community members. Unlike most institutions of higher education, TCUs provide much-needed high school completion (GED), basic remediation, job training, college preparatory courses, and adult basic education programs. They serve as community libraries and centers, tribal archives, career and business centers, economic development centers, public meeting places, and elder and child care centers. It is an underlying goal of all TCUs to improve the lives of students through higher education and to move American Indians toward self-sufficiency.

NOTES

- 1 Morrill Act of 1862, sec 4.
- 2 Hon. Justin W. Morrill. Address 1887. Reprinted under title, “I Would Have Higher Learning More Widely Disseminated” by University of Massachusetts, Amherst, 1961.
- 3 Hon. Justin W. Morrill. An address in behalf of the University of Vermont and State Agricultural College. Free Press Assoc., Burlington, Vt., 1888.
- 4 George A. Works and Barton Morgan. *The Land-Grant Colleges*. The Advisory Committee on Education, Staff Study No. 10, U.S. Government Printing Office, Washington, 1939.

This history is based on a chapter in the 1962 Department of Health, Education and Welfare publication *Land-Grant Colleges and Universities 1862–1962*, by Henry S. Brunner. The history was adapted and updated in February 1995 and February 2012 by the Office of Public Affairs of the Association of Public and Land-grant Universities.

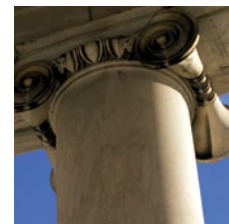
A Chronology of Federal Legislation Affecting Public Higher Education



- 1787**—Northwest Ordinance is passed, authorizing the sale of public land for support of education, thus establishing the land-grant principle.
- 1862**—Morrill Act is passed and signed by President Abraham Lincoln, donating public lands to the several states, the sale of which is for the “endowment, support, and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life.”
- 1887**—The Hatch Act is passed, mandating the creation of agricultural experiment stations for scientific research.
- 1890**—The second Morrill Act is passed, providing further endowment for colleges. Part of this funding is to be used for institutions for black students, leading to the creation of 17 historically black land-grant colleges.
- 1907**—Nelson Amendment to the Morrill Acts of 1862 and 1890 is passed, providing further increased appropriations to land-grant institutions.
- 1908**—Benefits of second Morrill Act and the Nelson Amendment extended to Puerto Rico.
- 1914**—The Smith-Lever Act is passed, providing federal support for land-grant institutions to offer educational programs to enhance the application of useful and practical information beyond their campuses through cooperative extension efforts with states and local communities.
- 1934**—Congress creates the National Youth Administration to enable college students to earn money by performing educationally useful tasks and to continue their studies.
- 1935**—The Bankhead-Jones Act adds to annual appropriations for land-grant institutions.
- 1942**—The General Equivalency Diploma (GED) program and the Military Evaluations Programs for veterans who left school to serve in World War II are established.
- 1944**—The Servicemen’s Readjustment Act (G.I. Bill of Rights), Public Law 346, provides for the higher education of veterans.
- 1945**—The Bankhead-Flannagan Act furthers the development of cooperative extension work in agriculture and home economics.
- 1946**—Congress passes the Fulbright Act (Public Law 584) to enable Americans to study and teach abroad.
- 1946**—The United Nations Educational, Scientific and Cultural Organization (UNESCO) is established, which among its many other activities, provides international exchange opportunities for American scholars and administrators.
- 1948**—The U.S. Information and Educational Exchange Act (the Smith-Mundt Act) provides for the international exchange of teachers, students, lecturers and other specialists.
- 1950**—Point Four Program is enacted by Congress (the Foreign Economic Assistance Act, subsequently called the International Cooperation Administration, then renamed the Agency for International Development, or AID).
- 1950**—Congress creates the National Science Foundation (NSF).
- 1950**—The Land-Grant Endowment Funds Bill protects federal and private endowments from unilateral federal action to divert them from the purposes for which they were granted.
- 1952**—Veterans’ Readjustment Assistance Act (Korean G.I. Bill of Rights) is passed.
- 1958**—National Defense Education Act (NDEA) provides college student loans, graduate fellowships and aid for the improvement in the teaching of science, mathematics and modern languages.
- 1960**—Land-grant status for the University of Hawaii establishes a new precedent. Since there is no longer adequate federal land to donate for the creation of an endowment, the University of Hawaii is given a \$6 million endowment in lieu of land scrip.

- 1961**—Report of the U.S. Commission on Civil Rights, “Equal Protection of the Laws in Public Higher Education: 1960” recommends that federal funds be disbursed “only to such publicly controlled institutions of higher education as do not discriminate on grounds of race, color, religion, or national origin.”
- 1963**—The Higher Education Act (HEA) of 1963 recognizes federal responsibility for aid to colleges and universities in the form of grants and loans for the construction of academic facilities.
- 1964**—The National Defense Education Act Amendments authorize major changes to expand and strengthen the graduate fellowship program and eliminate discriminatory institutional limitation on loan-fund grants.
- 1965**—The Higher Education Act of 1965 is passed, funding many higher education programs, including student aid.
- 1965**—The Housing and Urban Development Act of 1965 establishes a maximum interest rate of 3 percent for the College Housing Loan Program to provide relief for students from the high cost of college attendance.
- 1966**—The National Defense Education Project is passed to coordinate the federal role in international education. Later, this project is incorporated as Title VI of the Higher Education Act.
- 1967**—The District of Columbia Post Secondary Education Reorganization Act gives land-grant status to Federal City College, now the University of the District of Columbia. This established a precedent for federal trust areas to participate in the land-grant system.
- 1968**—The Navajo Community College Act creates the first tribally controlled college.
- 1972**—University of Guam, Northern Marianas College, the Community Colleges of American Samoa and Micronesia, and the College of the Virgin Islands secure land-grant status through the Education Amendments of 1972 (Public Law 92-318).
- 1978**—The Tribally Controlled Community College Act stimulates the development of a variety of technical, two-year, four-year, and graduate colleges presently located on or near tribal reservations.
- 1979**—The U.S. Department of Education is established.
- 1980**—Congress passes the Education Amendments of 1980 (to the Higher Education Act of 1965).
- 1991**—National Security Education Act (Boren Bill) is enacted to provide support for undergraduate study abroad and graduate work in foreign languages and area studies.
- 1992**—President Bush signs the Higher Education Act Amendments, reauthorizing the 1965 Higher Education Act.
- 1993**—The National and Community Service Trust Act establishes a corporation to coordinate programs through which students receive minimum wage stipends and tuition benefits in return for community service.
- 1993**—The federal government begins “direct lending,” a program that enables colleges and universities to provide loans using federal funds directly to students, thus avoiding private lenders and streamlining the process.
- 1993**—The American Indian Higher Education Consortium (AIHEC), supported by NASULGC, launches a campaign to secure land-grant status for Native American Colleges.
- 1994**—Land-grant status is conferred on 29 Native American colleges as a provision of the Elementary and Secondary Education Reauthorization Act. The bill also authorizes a \$23 million endowment for them, to be built up over five years. The colleges are to receive interest payments from the endowment each year.
- 2008**—The Food, Conservation and Energy Act of 2008 reorganizes the research entities within the U.S. Department of Agriculture to establish the National Institute of Food and Agriculture (NIFA).

The Land-Grant Colleges and Universities



ALABAMA

Alabama A&M University* (Normal, AL)
Auburn University (Auburn, AL)
Tuskegee University (Tuskegee, AL)

ALASKA

University of Alaska Statewide System
(Fairbanks, AK)
Ilisagvik College*† (Barrow, AK)

AMERICAN SAMOA

American Samoa Community College*
(Pago Pago, AQ)

ARIZONA

Diné College† (Tsaile, AZ)
The University of Arizona (Tucson, AZ)
Tohono O'odham Community College (Sells, AZ)

ARKANSAS

University of Arkansas, Fayetteville
(Fayetteville, AR)
University of Arkansas at Pine Bluff*
(Pine Bluff, AR)

CALIFORNIA

D-Q University (Davis, CA)
University of California System (Oakland, CA)

COLORADO

Colorado State University (Fort Collins, CO)

CONNECTICUT

Connecticut Agricultural Experiment Station
(New Haven, CT)
University of Connecticut (Storrs, CT)

DELAWARE

Delaware State University* (Dover, DE)
University of Delaware (Newark, DE)

DISTRICT OF COLUMBIA

University of the District of Columbia
(Washington, DC)

FLORIDA

Florida A&M University* (Tallahassee, FL)
University of Florida (Gainesville, FL)

GEORGIA

Fort Valley State College* (Fort Valley, GA)
The University of Georgia (Athens, GA)

GUAM

University of Guam (Mangilao, GU)

HAWAII

University of Hawaii (Honolulu, HI)

IDAHO

University of Idaho (Moscow, ID)

ILLINOIS

University of Illinois (Urbana, IL)

INDIANA

Purdue University (West Lafayette, IN)

IOWA

Iowa State University (Ames, IA)

KANSAS

Haskell Indian Nations University†
(Lawrence, KS)
Kansas State University (Manhattan, KS)

KENTUCKY

Kentucky State University* (Frankfort, KY)
University of Kentucky (Lexington, KY)

LOUISIANA

Louisiana State University System
(Baton Rouge, LA)
Southern University System* (Baton Rouge, LA)

MAINE

The University of Maine (Orono, ME)

MARYLAND

University of Maryland at College Park
(College Park, MD)
University of Maryland Eastern Shore*
(Princess Anne, MD)

MASSACHUSETTS

Massachusetts Institute of Technology
(Cambridge, MA)
University of Massachusetts (Amherst, MA)

MICHIGAN

Bay Mills Community College† (Brimley, MI)
Michigan State University (East Lansing, MI)
Saginaw Chippewa Tribal College†
(Mount Pleasant, MI)

MICRONESIA

College of Micronesia-FSM
(Kolonia, Pohnpei, FM)

MINNESOTA

Fond Du Lac Tribal and Community College†
(Cloquet, MN)
Leech Lake Tribal College† (Cass Lake, MN)
University of Minnesota (Minneapolis, MN)
White Earth Tribal and Community College†
(Mahnomon, MN)

MISSISSIPPI

Alcorn State University* (Lorman, MS)
Mississippi State University
(Mississippi State, MS)

MISSOURI

Lincoln University* (Jefferson City, MO)
University of Missouri System (Columbia, MO)

MONTANA

Blackfeet Community College† (Browning, MT)
Chief Dull Knife College† (Lame Deer, MT)
Fort Belknap Community College†
(Harlem, MT)
Fort Peck Community College† (Poplar, MT)
Little Big Horn College† (Crow Agency, MT)
Montana State University (Bozeman, MT)
Salish Kootenai College† (Pablo, MT)
Stone Child College† (Box Elder, MT)

NEBRASKA

Little Priest Tribal College† (Winnebago, NE)
Nebraska Indian Community College†
(Macy, NE)
University of Nebraska System (Lincoln, NE)

NEVADA

University of Nevada, Reno (Reno, NV)

NEW HAMPSHIRE

University of New Hampshire (Durham, NH)

NEW JERSEY

Rutgers, The State University of New Jersey
(New Brunswick, NJ)

NEW MEXICO

Crownpoint Institute of Technology
(Crownpoint, NM)
Institute of American Indian and Alaska Native
Culture and Arts Development†
(Santa Fe, NM)
Navajo Technical College† (Crownpoint, NM)
New Mexico State University (Las Cruces, NM)
Southwest Indian Polytechnic Institute†
(Albuquerque, NM)

NEW YORK

Cornell University (Ithaca, NY)

NORTH CAROLINA

North Carolina A&T State University*
(Greensboro, NC)
North Carolina State University (Raleigh, NC)

* indicates 1890 land-grant institution

† indicates 1994 tribal college land-grant institution

NORTH DAKOTA

- Cankdeska Cikana Community College[†] (Fort Totten, ND)
- Fort Berthold Community College[†] (New Town, ND)
- North Dakota State University (Fargo, ND)
- Sitting Bull College[†] (Fort Yates, ND)
- Turtle Mountain Community College[†] (Belcourt, ND)
- United Tribes Technical College[†] (Bismark, ND)

NORTHERN MARIANAS

- Northern Marianas College (Saipan, CM)

OHIO

- The Ohio State University (Columbus, OH)

OKLAHOMA

- Langston University* (Langston, OK)
- Oklahoma State University (Stillwater, OK)

OREGON

- Oregon State University (Corvallis, OR)

PENNSYLVANIA

- The Pennsylvania State University (University Park, PA)

PUERTO RICO

- University of Puerto Rico (San Juan, PR)

RHODE ISLAND

- The University of Rhode Island (Kingston, RI)

SOUTH CAROLINA

- Clemson University (Clemson, SC)
- South Carolina State University* (Orangeburg, SC)

SOUTH DAKOTA

- Oglala Lakota College[†] (Kyle, SD)
- Sinte Gleska University[†] (Rosebud, SD)
- Sisseton Wahpeton College[†] (Sisseton, SD)
- South Dakota State University (Brookings, SD)

TENNESSEE

- Tennessee State University* (Nashville, TN)
- The University of Tennessee (Knoxville, TN)

TEXAS

- Prairie View A&M University* (Prairie View, TX)
- Texas A&M University (College Station, TX)

UTAH

- Utah State University (Logan, UT)

VERMONT

- The University of Vermont (Burlington, VT)

VIRGIN ISLANDS

- University of the Virgin Islands (St. Thomas, VI)

VIRGINIA

- Virginia Polytechnic Institute & State University (Blacksburg, VA)
- Virginia State University* (Petersburg, VA)

WASHINGTON

- Northwest Indian College[†] (Bellingham, WA)
- Washington State University (Pullman, WA)

WEST VIRGINIA

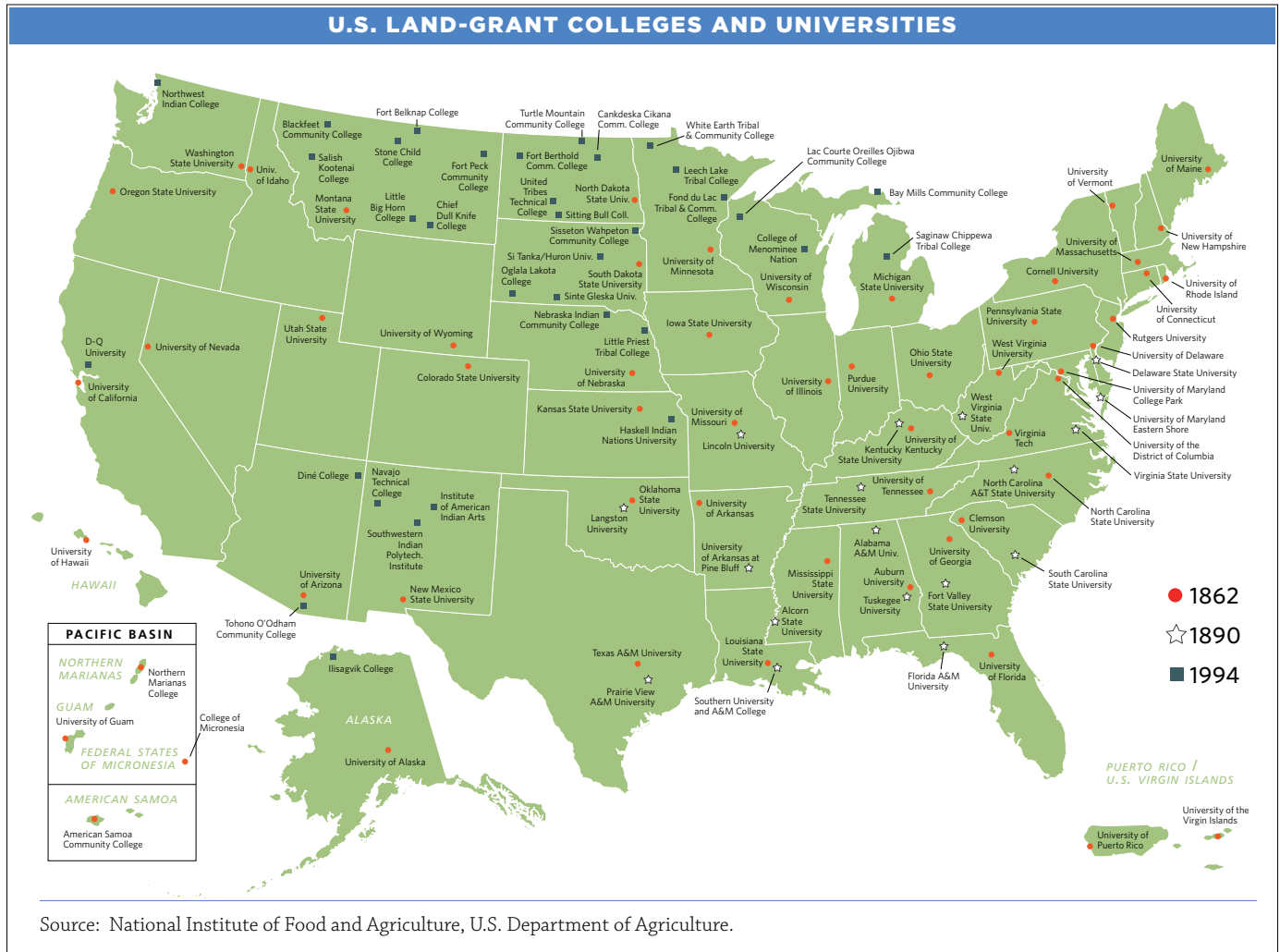
- West Virginia University (Morgantown, WV)
- West Virginia State University* (Institute, WV)

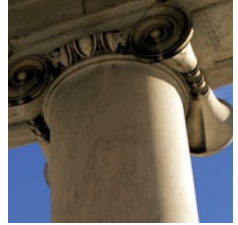
WISCONSIN

- College of the Menominee Nation[†] (Keshena, WI)
- Lac Courte Oreilles Ojibwa Community College[†] (Hayward, WI)
- University of Wisconsin-Madison (Madison, WI)

WYOMING

- University of Wyoming (Laramie, WY)





Text of Federal Legislation Relating to Land-Grant Colleges and Universities

Act of July 2, 1862 (First Morrill Act)

{Providing for the endowment, support and maintenance of colleges of agriculture and mechanic arts}

[An act donating public lands to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts]

Be it enacted by the Senate and House of Representatives of the United States of America, in Congress assembled, That there be granted to the several States, for the purposes hereinafter mentioned, an amount of public land, to be apportioned to each State a quantity equal to thirty thousand acres for each Senator and Representative in Congress to which the States are respectively entitled by the apportionment under the census of 1860; Provided, That no mineral lands shall be selected or purchased under the provisions of this act.

SECTION 2

And be it further enacted, That the land aforesaid, after being surveyed, shall be apportioned to the several States in sections or subdivisions of sections, not less than one-quarter of a section; and wherever there are public lands in a State, subject to sale at private entry at one dollar and twenty-five cents per acre, the quantity to which said State shall be entitled shall be selected from such lands, within the limits of such State; and the Secretary of the Interior is hereby directed to issue to each of the States, in which there is not the quantity of public lands subject to sale at private entry, at one dollar and twenty-five cents per acre, to which said State may be entitled under the provisions of this act, land scrip to the amount in acres for the deficiency of its distributive share; said scrip to be sold by said States, and the proceeds thereof applied to the uses and purposes prescribed in this act, and for no other purpose whatsoever: Provided, That in no case shall any State to which land scrip may thus be issued be allowed to locate the same within the limits of any other State, or of any territory of the United States; but their assignees may thus locate said land scrip upon any of the unappropriated lands of the United States subject to sale at private entry, at one dollar and twenty-five cents, or less, an acre: and provided further, That not more than one million acres shall be located by such assignees in any one of the

States: And provided further, That no such location shall be made before one year from the passage of this act.

SECTION 3

And be it further enacted, That all the expenses of management, superintendence, and taxes from date of selection of said lands, previous to their sales, and all expenses incurred in the management and disbursement of moneys which may be received therefrom, shall be paid by the States to which they may belong, out of the treasury of said States, so that the entire proceeds of the sale of said lands shall be applied, without any diminution whatever, to the purposes hereinafter mentioned

SECTION 4 (as amended April 13, 1926, 44 Stat. L. 247)

That all moneys derived from the sale of lands aforesaid by the States to which lands are apportioned and from the sales of land scrip hereinbefore provided for shall be invested in bonds of the United States or of the States or some other safe bonds; or the same may be invested by the States having no State bonds in any manner after the legislatures of such States shall have assented thereto and engaged that such funds shall yield a fair and reasonable rate of return, to be fixed by the State legislatures, and that the principal thereof shall forever remain unimpaired: Provided, That the moneys so invested or loaned shall constitute a perpetual fund, the capital of which shall remain forever undiminished (except so far as may be provided in section 5 of this act), and the interest of which shall be inviolably appropriated, by each State which may take and claim the benefit of this act, to the endowment, support, and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life.

SECTION 5

And be it further enacted, That the grant of land and land scrip hereby authorized shall be made on the following conditions, to which, as well as to the provisions herein-

before contained, the previous assent of the several States shall be signified by legislative acts:

First. If any portion of the fund invested, as provided by the foregoing section, or any portion of the interest thereon, shall, by any action or contingency, be diminished or lost, it shall be replaced by the State to which it belongs, so that the capital of the fund shall remain forever undiminished; and the annual interest shall be regularly applied without diminution to the purposes mentioned in the fourth section of this act, except that a sum, not exceeding 10 per centum upon the amount received by any State under the provisions of this act, may be expended for the purchase of lands for sites or experimental farms, whenever authorized by the respective legislatures of said States;

Second. No portion of said fund, nor the interest thereon, shall be applied, directly or indirectly, under any pretense whatever, to the purchase, erection, preservation, or repair of any building or buildings;

Third. Any State which may take and claim the benefit of the provisions of this act shall provide, within five years, at least not less than one college, as prescribed in the fourth section of this act, or the grant to such State shall cease; and said State shall be bound to pay the United States the amount received of any lands previously sold, and that the title to purchasers under the State shall be valid;

Fourth. An annual report shall be made regarding the progress of each college, recording any improvements and experiments made, with their costs and results, and such other matters, including State industrial and economical statistics, as may be supposed useful; one copy of which shall be transmitted by mail free, by each, to all the other colleges which may be endowed under the provisions of this act, and also one copy to the Secretary of the Interior;

Fifth. When lands shall be selected from those which have been raised to double the minimum price in consequence of railroad grants, they shall be computed to the States at the maximum price, and the number of acres proportionally diminished;

Sixth. No State, while in a condition of rebellion or insurrection against the Government of the United States, shall be entitled to the benefit of this act;

Seventh. No State shall be entitled to the benefits of this act unless it shall express its acceptance thereof by its legislature within two years from the date of its approval by the President.

SECTION 6

And be it further enacted, That land scrip issued under the provisions of this act shall not be subject to location until after the first day of January, 1863.

SECTION 7

And be it further enacted, That land officers shall receive the same fees for locating land scrip issued under the provisions of this act as is now allowed for the location of military bounty land warrants under existing laws: Provided, That maximum compensation shall not be thereby increased.

SECTION 8

And be it further enacted, That the governors of the several States to which scrip shall be issued under this act shall be required to report annually to Congress all sales made of such scrip until the whole shall be disposed of the amount received for the same, and what appropriation has been made of the proceeds.

Approved July 2, 1862 (12 Stat. 503)

Act of 1866 Amending First Morrill Act

[An act to amend the fifth section of an act entitled "An act donating public lands to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts," approved July 2, 1862, so as to extend the time within which the provisions of said act shall be accepted and such colleges established.]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress Assembled, That the time in which the several States may comply with the provisions of the act of July second, eighteen hundred and sixty-two, entitled "An act donating public lands to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts," is hereby extended so that the acceptance of the benefits of the said act may be expressed within three years from the passage of this act, and the colleges required by the said act may be provided within five years from the date of the filing of such acceptance with the Commissioner of the General Land Office: Provided, That when any Territory shall become a State and be admitted into the Union such new States shall be entitled to the benefits of the said act of July second, eighteen hundred and sixty-two, by expressing the acceptance therein required within three years from the date of its admission into the Union, and providing the college or colleges within five years after such acceptance, as prescribed in this act: Provided further, That any State which has heretofore expressed its acceptance of the act herein referred to shall have the period of five years within which to provide at least one college as described in the fourth section of said act, after the time for providing said college, according to the act of July second, eighteen hundred and sixty-two, shall have expired.

Approved, July 23, 1866. (14 Stat. 208.)

Rulings and Opinions on Act of July 2, 1862

ACCOUNTING AND REPORTS—“Accounts should be kept by the proper officers” of all the States having grants “showing all the facts relating to the sale and leasing of lands granted for agricultural colleges, and the receipt, investment, and disposition of the proceeds arising from such sales and leases; and such officers should, when called on to do so, timely report such facts to the Secretary of the Interior or permit an ascertainment of such facts through inspection and examination of their records by some officer of the Government or other person designated by the Secretary of the Interior for that purpose.”

The representatives of the Office of Education or some other officer designated by the Secretary of the Interior should, through reports from the officers of each of the States, or otherwise, from time to time as the occasion may require, ascertain all facts and conditions tending to show the manner in which the funds arising from the lands granted for agricultural colleges are being handled, invested, and disposed of; or furnish a full statement thereof to the Secretary of the Interior. —*Rulings approved by the Secretary of the Interior, October 11, 1923.*

In order that the Department of the Interior through the Commissioner of Education may be able to ascertain whether or not the States are complying with the provisions of the act of 1862, the institutions receiving the benefit of that act are required to submit a statement of the disbursements of the annual income received by them under said act. —*Ruling of Secretary of the Interior, July 11, 1930.*

DIVISION OF FUND—“A State may by appropriate legislation divide the original” 1862 land-grant “fund into two parts and provide that the interest of each part shall be available to a particular college and vest in such college, as an agency of the State, the duty of investing its particular part of the funds in bonds of the United States or of the State or some other safe bonds, the determination of the safety of which is to rest with the college.” —*Ruling of Secretary of the Interior, September 15, 1935.*

INCOME AND ITS USE—“The income” from the 1862 land-grant endowment “is not a fiscal year or limited fund. It must remain forever at the disposal of the institution entitled to the benefit of the fund. Nor may it ever be covered into the general State funds or used for general State purposes. There can be no default to the State by the institution.”

“Proceeds from rentals, sale of timber rights, water rights, and other privileges, and interest on deferred payments of purchase money partake of the same character as the income from invested funds, and must be devoted, without diminution, to the purposes” of the act.

“The only restriction placed by the Act of Congress of July 2, 1862, upon the expenditures of the income derived from the sale of public lands granted for the endowment of colleges of agriculture and the mechanic arts and the investment of the purchase money is that no part of such income may be expended for the purchase, erection, preservation, or repair of any building or buildings, nor may this income be used for the purchase of land.” —*Ruling of Secretary of the Interior, May 23, 1916.*

INSTRUCTION FOR WOMEN STUDENTS—Instruction in the industries for women is included in instruction in agriculture and mechanic arts. —*Ruling of Secretary of the Interior, May 23, 1916.*

MILITARY TACTICS—An agricultural college which offers a proper, substantial course in military tactics complies sufficiently with the requirements as to military tactics in the act of July 2, 1862, and the other acts, even though the students at that institution are not compelled to take that course. —*Opinion of Attorney General, June 30, 1930.*

DEFAULT OF ACT OF 1862—The act of 1890 (26 Stat. 417) with the amendment of 1907 (34 Stat. 1281) is supplementary to the act of 1862; therefore any default of the provisions of the act of 1862 renders the State liable for non-certification for the annual installments of the funds appropriated by the acts of 1890 and 1907. —*Ruling of Secretary of the Interior, May 23, 1916.*

Act of August 30, 1890 (Second Morrill Act)

{Providing for the further endowment and support of colleges of agriculture and mechanic arts}

[An act to apply a portion of the proceeds of the public lands to the more complete endowment and support of the colleges for the benefit of agriculture and the mechanic arts established under the provisions of an act of Congress approved July second, eighteen hundred and sixty-two]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there shall be, and hereby is, annually appropriated, out of any money in the Treasury not otherwise appropriated, arising from the sale of public lands, to be paid as hereinafter provided, to each State and Territory for the more complete endowment and maintenance of colleges for the benefit of agriculture and the mechanic arts now established, or which may be hereafter established, in accordance with an act of Congress approved July second, eighteen hundred and sixty-two, the sum of fifteen thousand dollars for the year ending June thirtieth, eighteen hundred and ninety, and an annual increase of the amount of such appropriation thereafter for ten years by an additional sum of one thousand dollars over the preceding year and the annual amount of be paid thereafter to each State and Territory shall be twenty-five thousands dollars to be applied only to instruction in agriculture, the mechanic arts, the English language and the various branches of mathematical, physical, natural, and economic science, with special reference to their applications in the industries of life, and to the facilities for such instruction: *Provided,* That no money shall be paid out under this act to all State and Territory for the support and maintenance of a college where a distinction of race or color is made in the admission of students, but the establishment and maintenance of such colleges separately for white and colored students shall be held to be a compliance with the provisions of this act if the funds received in such State or Territory be equitably divided as hereinafter set forth: *Provided,* That in any State in which there has been one college established in pursuance of the act of July second, eighteen hundred and sixty-two, and also in which an educational institution of like character has been established, or may be hereafter established, and is now aided by such State from its own revenue for the education of colored students in agriculture and the mechanic arts, however named or styled, or whether or not it has received money heretofore under the act to which this act is an amendment, the legislature of such a State may propose and report to the Secretary of the Interior a just and equitable division of the fund to be received under this act between one college for white students and one institution for colored students established as aforesaid, which shall be divided into two parts and paid accordingly,

and thereupon such institution for colored students shall be entitled to the benefits of this act and subject to its provisions, as much as it would have been if it had been included under the act of eighteen hundred and sixty-two, and the fulfillment of the foregoing provisions shall be taken as a compliance with the provision in reference to separate colleges for white and colored students.

SECTION 2

That the sums hereby appropriated to the States and Territories for the further endowment and support of colleges shall be annually paid on or before the thirty-first day of July of each year, by the Secretary of the Treasury, upon the warrant of the Secretary of the Interior, out of the Treasury of the United States, to the State or Territorial treasurer, or to such officer as shall be designated by the laws of such State or Territory to receive the same, who shall, upon the order of the trustees of the college, or the institution for colored students, immediately pay over said sums to the treasurers of the respective colleges or other institutions entitled to receive the same, and such treasurer shall be required to report to the Secretary of Agriculture and to the Secretary of the Interior, on or before the first day of September of each year, a detailed statement of the amount so received and of its disbursement. The grants of moneys authorized by this act are made subject to the legislative assent of the several States and Territories to the purpose of said grants: *Provided,* That payments of such installments of the appropriation herein made as shall become due to any State before the adjournment of the regular session of legislature meeting next after the passage of this act shall be made upon the assent of the governor thereof, duly certified to the Secretary of the Treasury.

SECTION 3

That if any portion of the moneys received by the designated officer of the State or Territory for the further and more complete endowment, support, and maintenance of colleges, or of institutions for colored students, as provided in this act, shall, by any action or contingency, be diminished or lost, or be misapplied, it shall be replaced by the State or Territory to which it belongs, and until so replaced no subsequent appropriation shall be apportioned or paid to such State or Territory; and no portion of said moneys shall be applied, directly or indirectly, under any pretense whatever, to the purchase, erection, preservation, or repair of any building or buildings. An annual report by the president of each of said colleges shall be made to the Secretary of Agriculture, as well as to the Secretary of the Interior, regarding the condition and progress of each college, including statistical information in relation to its receipts and expenditures, its library, the number of its students and professors, and also as to any improvements and experiments made

under the direction of any experiment stations attached to said colleges, with their costs and results, and such other industrial and economical statistics as may be regarded as useful, one copy of which shall be transmitted by mail free to all other colleges further endowed under this act.

SECTION 4

That on or before the first day of July in each year, after the passage of this act, the Secretary of the Interior shall ascertain and certify to the Secretary of the Treasury as to each State and Territory whether it is entitled to receive its share of the annual appropriation for colleges, or of institutions for colored students, under this act, and the amount which thereupon each is entitled, respectively, to receive. If the Secretary of the Interior shall withhold a certificate from any State or Territory of its appropriation, the facts and reasons therefore shall be reported to the President, and the amount involved shall be kept separate in the Treasury until the close of the next Congress, in order that the State or Territory may, if it should so desire, appeal to Congress from the determination of the Secretary of the Interior. If the next Congress shall not direct such sum to be paid, it shall be covered into the Treasury. And the Secretary of the Interior is hereby charged with the proper administration of this law.

SECTION 5

That the Secretary of the Interior shall annually report to Congress the disbursements which have been made in all the States and Territories, and also whether the appropriation of any State or Territory has been withheld, and if so, the reasons there for.

SECTION 6

Congress may at any time amend, suspend, or repeal any or all of the provisions of this act.

Approved, August 30, 1890. (26 Stat. 417.)

Nelson Amendment of March 4, 1907

{Providing for the more complete endowment and maintenance of land-grant colleges}

[Extract from an act making appropriations for the Department of Agriculture for the fiscal year ending June thirtieth, nineteen hundred and eight]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled. That there shall be, and hereby is, annually appropriated, out of any money in the Treasury not otherwise appropriated, to be paid as hereinafter provided, to each State and Territory for the more complete endowment and maintenance of agricultural colleges now established, or which may hereafter be established, in accordance with the act of Congress

approved July second, eighteen hundred and sixty-two, and the act of Congress approved August thirtieth, eighteen hundred and ninety, the sum of five thousand dollars, in addition to the sums named in said act for the fiscal year ending June thirtieth, nineteen hundred and eight, and an annual increase of the amount of such appropriation thereafter for four years by an additional sum of five thousand dollars over the preceding year, and the annual sum to be paid thereafter to each State and Territory shall be fifty thousand dollars, to be applied only for the purposes of the agricultural colleges as defined and limited in the act of Congress approved July second, eighteen hundred and sixty-two, and the act of Congress approved August thirtieth, eighteen hundred and ninety.

That the sum hereby appropriated to the States and Territories for the further endowment and support of the colleges shall be paid by, to, and in the manner prescribed by the act of Congress approved August thirtieth, eighteen hundred and ninety, entitled "An act to apply a portion of the proceeds of the public lands to the more complete endowment and support of the colleges for the benefit of agriculture and the mechanic arts established under the provisions of the act of Congress approved July second, eighteen hundred and sixty-two," and the expenditure of the said money shall be governed in all respects by the provisions of the said act of Congress approved July second, eighteen hundred and sixty-two, and the said act of Congress approved August thirtieth, eighteen hundred and ninety: *Provided*, That said colleges may use a portion of this money for providing courses for the special preparation of instructors for teaching the elements of agriculture and the mechanic arts.

Approved, March 4, 1907. (34 Stat. L. 1281.)

Digest of Rulings and Opinions on Acts of August 30, 1890, and March 4, 1907

TIME LIMIT ON EXPENDITURE OF FUNDS—"The moneys appropriated by the act of August 30, 1890" are "in the nature of an annuity to be used from year to year" and cannot be "accumulated or converted into an interest-bearing fund." —*Decision of Attorney General, June 20, 1899.*

The Department will insist on the expenditure of substantially the entire amount appropriated by the act of August 30, 1890, and the boards of control of agricultural and mechanic arts colleges are requested to make provision for such expenditures. It is understood of course that contracts may be entered into for educational material which, for good reasons, may not be ready and paid for until the following year. In such cases it is sufficient to explain by a note in the annual report that the balance is held for the purpose of liquidating bills already incurred, and stating the nature of the outstanding contracts. —*Ruling of the Secretary of the Interior, December 7, 1900.*

ACCRUED INTEREST ON APPROPRIATIONS—“Interest accruing upon funds” under the acts of August 30, 1890, and March 4, 1907, “is interest accruing to the United States and should be covered into the United States Treasury as miscellaneous receipts.” The funds in question should be deposited by the treasurers of the institutions “in banks as custodians for funds of the United States and any interest accruing thereon should be for disposition as herein indicated.” —*Opinion of Comptroller General of United States, January 16, 1933.*

Accrued interest must be accounted for and covered into the United States Treasury at the close, June 30, of each fiscal year. The funds must be kept in a deposit account separate from all other funds. The person duly designated to receive the funds is responsible for the accounting of such interest as may be credited to the deposit account by the bank in which the deposit account is maintained. Checks covering interest accrued for each fiscal year should be mailed with the annual reports and will be forwarded to the Treasurer of the United States as miscellaneous receipts. —*Ruling of Secretary of the Interior, June 5, 1933.*

In the light of decisions of the Comptroller General addressed to the Secretary of Agriculture dated January 16, 1933, and March 27, 1933, the Commissioner of Education has ruled as follows with respect to the Morrill-Nelson-Bankhead-Jones funds:

It will not be necessary, therefore, to require that separate bank deposit accounts be maintained for Morrill-Nelson and Bankhead-Jones funds, provided interest is not paid on funds deposited in bank for land-grant college or university. Moreover, if interest is paid on funds on deposit in bank for the college or university, it will be necessary to require that separate bank accounts for Morrill-Nelson and Bankhead-Jones funds be maintained as heretofore.

—*Letter of the U.S. Commissioner of Education to Presidents and Treasurers of Land-Grant Colleges and Universities, October 11, 1941.*

EXPENDITURES OF FUNDS FOR DIFFERENT PURPOSES—No part of these funds may be “expended for grounds for building sites” or “for lands for use in the practical training of students in agriculture.” —*Opinion of Attorney General, March 1891.*

Purchases from these funds of “apparatus, machinery, text-books, reference books, stock and material used in instruction, or for purposes of illustration in connection with any of the branches enumerated” in the act of August 30, 1890, are permissible. —*Ruling of Secretary of the Interior, August 3, 1899.*

In the case of the purchase of “machinery (such as boilers, engines, pumps, etc.) and farm stock, which are made to

serve for both instructional and other purposes, the Federal funds may be charged with only an equitable portion of the cost of said machinery and stock.”

“Expenditures for permanent improvements to buildings, grounds and farms, such as clearing, draining, and fencing lands,” are not allowable from these funds.

—*Rulings of Secretary of the Interior, November 2, 1911.*

USE OF FUNDS FOR SALARIES—The “salary of the treasurer” of the college is not “a legitimate charge against the funds” and cannot properly be paid from them.

—*Opinion of Attorney General, March 7, 1894.*

“The salaries of purely administrative officers, such as presidents, treasurers, secretaries, bookkeepers, janitors, watchmen, etc., cannot be charged” to these funds, “nor the salaries of other administrative officers, like superintendents, foremen, and matrons, and the wages of unskilled laborers and assistants in shops, laboratories, and fields.”

When an administrative officer also gives instruction in any of the branches of study mentioned in the act of August 30, 1890, or when an instructor gives such instruction and also denotes part of his time to giving instruction in branches of study not mentioned in the said act, only a part of such person’s salary proportionate to the time devoted to giving instruction in the branches of the study mentioned in said act can be charged to these funds. In the division of the time between instructional and other services, 1 hour of instruction shall be regarded as the equivalent of 2 hours of administrative, supervisory, or experiment station staff.

The funds cannot be used for “salaries of instructors in philosophy, psychology, ethics, logic, history, civil government, military science and tactics, and in ancient and modern languages (except English.)” —*Rulings of Secretary of the Interior, August 3, 1899, November 2, 1911, and May 23, 1916.*

The funds cannot be used “for the salaries of instructors, improperly trained or incompetent for the positions they are supposed to fill; nor may they be used for salaries or expenses of the experiment station staff; nor for instructors employed in research work or in collecting, classifying and arranging specimens, collections or exhibits.” —*Ruling of Secretary of the Interior, May 23, 1916.*

SUBJECTS OF INSTRUCTION ALLOWED—In order that greater uniformity in the reports of the treasurers may be obtained in the future, the following classification of subjects that may be included under the several schedules has been prepared, such classification to be adhered to by the treasurers of the various institutions in the preparation of their annual reports:

A. *Instruction in agriculture*—Agriculture, horticulture, forestry, agronomy, animal husbandry, dairying, veterinary medicine, poultry husbandry, and agriculture.

B. *Instruction in mechanic arts*—Mechanical engineering, civil engineering, electrical engineering, irrigation engineering, mining engineering, marine engineering, railway engineering, experimental engineering, textile industry, architecture, machine design, mechanical drawing, ceramics, stenography, typewriting, telegraphy, printing, and shopwork.

C. *Instruction in English language*—English language, English literature, composition, rhetoric, and oratory.

D. *Instruction in mathematical sciences*—Mathematics, book-keeping, and astronomy.

E. *Instruction in natural and physical sciences*—Chemistry, physics, biology, botany, zoology, geology, mineralogy, metallurgy, entomology, physiology, bacteriology, pharmacy, physical geography, and meteorology.

F. *Instruction in economic sciences*—Political economy, home economics, commercial geography, and sociology.

G. *Special preparation of teachers*—History of industrial education (with special reference to agriculture, mechanic arts, and home economics); methods of teaching agriculture, mechanic arts, and home economics; special instructions to persons teaching agriculture, mechanic arts, and home economics. —*Rulings of Secretary of the Interior, December 7, 1900, and May 23, 1916.*

Expenditures from the funds provided by the act of March 4, 1907, are not authorized “for general courses in pedagogy, psychology, history of education, and methods of teaching.” —*Rulings of Secretary of the Interior, November 2, 1911, and May 23, 1916.*

The funds cannot be “expended for instruction in the elementary subjects, or their equivalent, included in the first 6 years of the course of study of the public schools of the States in which each institution is located, excepting for students 14 years or over who are devoting at least one-half of their time in industrial subjects as preparatory work in the mechanical trades, industries for women, or agriculture.”

All or part of the funds provided by the act of March 4, 1907, may be used “for providing courses for the special preparation of instructors for teaching the elements of agriculture and mechanic arts.” It is held that this language authorizes expenditures for instruction in the history of agriculture and industrial education, in methods of teaching agriculture, mechanic arts, and home economics, and also for special aid and supervision given to teachers actively engaged in teaching agriculture, mechanic arts, and home economics in public schools. —*Ruling of Secretary of the Interior, May 23, 1916.*

The board of control of a system of higher education in a State has not the authority to change the designation of the land-grant college from one institution under its jurisdiction to another.

It is therefore the opinion of this Office that the Administrator may not accept the change in designation of the Negro land-grant college by the Board of Regents of the University of Georgia, but must insist that the Federal grant continue to be available to the Georgia State College until such time as the State legislature may by change of designation redirect the money to the use of another institution. —*Opinion of General Counsel, Federal Security Agency, January 3, 1949.*

All Colleges Designated as “Land-Grant” Are Operated Under the Provisions of the Morrill Act of 1862

It is the opinion of this Office that the Negro institutions which receive a part of the Federal funds provided under the Morrill Acts and supplementary legislation (12 Stat. 503; 26 Stat. 417; 34 Stat. 1281; and 49 Stat. 439) are governed by the same legal provisions which govern other land-grant colleges, including the requirement of the Act of July 2, 1862, that military tactics be taught therein. The fact of segregation itself does not affect the designated institution’s rights and obligations, and Morrill Act funds are specifically available only to institutions established “in accordance with” the conditions of the 1862 enactment. The legislative history and the recorded interpretations of the Acts also enforce the conclusion that there is no legal basis for a failure to require a substantial course in military tactics to be offered by Negro institutions participating in grants under all or any of the four Acts of Congress noted above. —*Opinion of the General Counsel, Federal Security Agency, July 13, 1949*

Land-Grant Colleges Constituted Depositories of Public Documents by Act of March 1, 1907

[Clause from an amendment to an act providing for the public printing, binding, and distribution of public documents]

All land-grant colleges shall be constituted as depositories for public documents, subject to the provisions and limitations of the depository laws. —(34 Stat., 1014)

Free Mailing Privilege for Annual Reports of Land-Grant Colleges

[Excerpt from Postal Laws and Regulations of the United States (1924) relating to the free transmission of annual reports of agricultural and mechanic arts colleges]

Postmasters at offices where colleges are established under the provisions of the act of July 2, 1862, shall receive from the officers thereof the reports referred to addressed, one copy each, to such other colleges and to the Secretary of the Interior and the Secretary of Agriculture, and affix to each a penalty label or official envelop of the post office, and forward the same free.

Hatch Act of 1887, as amended

The Hatch Act of 1887 authorized federal-grant funds for direct payment to each state that would establish an agricultural experiment station in connection with the land-grant college established under the provisions of the Morrill Act of July 2, 1862, and of all supplementary acts.

In 1955 the Hatch Act of 1887 was amended to bring about consolidation of the several federal laws relating to the appropriation of federal-grant funds for the support of agricultural experiment stations in the states, Alaska, Hawaii, and Puerto Rico. With this amendment the Adams Act of 1906 and the Purnell Act of 1925, as well as the Bankhead-Jones Act of 1935 and title I, section 9, of the amendment of 1945 to the Bankhead-Jones Act, as the latter two laws applied to agricultural experiment stations, were repealed.

[An Act to establish agricultural experiment stations in connection with the colleges established in the several States under the provisions of an act approved July second, eighteen hundred and sixty-two, and of the acts supplementary thereto]

Be it enacted by the Senate and the House of Representatives of the United States of America in Congress assembled, It is the policy of Congress to continue the agricultural research at State agricultural experiment stations which has been encouraged and supported by the Hatch Act of 1887, the Adams Act of 1906, the Purnell Act of 1925, the Bankhead-Jones Act of 1935, and title I, section 9, of that Act as added by the Act of August 14, 1946, and Acts amendatory and supplementary thereto, and to promote the efficiency of such research by a codification and simplification of such laws. As used in this Act, the terms "State" or "States" are defined to include the several States, including the District of Columbia, Alaska, Hawaii, Puerto Rico, Guam and the Virgin Islands. As used in this Act, the term "State agricultural experiment station" means a department which shall have been established, under direction of the college or university or agricultural departments of the college or university in each State in accordance with an Act approved July 2, 1862 (12 Stat. 503), entitled "An Act donating public lands to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts"; or such other substantially equivalent arrangements as any State shall determine.

SECTION 2

It is further the policy of the Congress to promote the efficient production, marketing, distribution, and utilization of products of the farm as essential to the health and welfare of our peoples and to promote a sound and prosperous agriculture and rural life as indispensable to the maintenance of maximum employment and national prosperity and security. It is also the intent of Congress to assure agriculture

a position in research equal to that of industry, which will aid in maintaining an equitable balance between agriculture and other segments of our economy. It shall be the object and duty of the State agricultural experiment stations through expenditure of the appropriations hereinafter authorized to conduct original and other researches, investigations, and experiments bearing directly on and contributing to the establishment and maintenance of a permanent and effective agricultural industry of the United States, including researches basic to the problems of agriculture in its broadest aspects, and such investigations as have for their purpose the development and improvement of the rural home and rural life and the maximum contribution by agriculture to the welfare of the consumer, as may be deemed advisable, having due regard to the varying conditions and needs of the respective States.

SECTION 3

(a) There are hereby authorized to be appropriated for the purposes of this Act such sums as Congress may from time determine to be necessary.

(b) (1) Out of such sums each State shall be entitled to receive annually a sum of money equal to and subject to the same requirement as to use for marketing research projects as the sums received from Federal appropriations for State agricultural experiment stations for the fiscal year 1955, except as the "Regional research fund, Office of Experiment Stations" shall continue to be available for the support of cooperative regional projects as defined in subsection 3(c)(3), and the said fund shall be designated "Regional Research, State agricultural experiment stations", and the Secretary of Agriculture shall be entitled to receive annually for the administration of this Act, a sum not less than that available for this purpose for the fiscal year ending June 30, 1955: Provided, That if the appropriations hereunder for distribution in any fiscal year are less than those for the fiscal year 1955 the allotment to each State and the amounts for Federal administration and the regional research fund shall be reduced in proportion to the amount of such reduction.

(2) There is authorized to be appropriated for the fiscal year ending June 30, 1973, and for each fiscal year thereafter, for payment to the Virgin Islands and Guam, \$100,000 each, which sums shall be in addition to the sums appropriated for the several States of the United States and Puerto Rico under the provisions of this section. The amount paid by the Federal Government to the Virgin Islands and Guam pursuant to this paragraph shall not exceed during any fiscal year, except the fiscal years ending June 30, 1971, and June 30, 1972, when such amount may be used to pay the total cost of providing services pursuant to this Act, the amount available and budgeted for expenditure by the Virgin Islands and Guam for the purposes of this Act.

(c) Any sums made available by the Congress in addition to those provided for in subsection (b) hereof for State agricultural experiment station work shall be distributed as follows:

1. Twenty per centum shall be allotted equally to each State,
2. Not less than 52 per centum of such sums shall be allotted to each State, as follows: One-half in an amount which bears the same ratio to the total amount to be allotted as the rural population of the State bears to the total rural population of all the States as determined by the last preceding decennial census current at the time each such additional sum is first appropriated; and one-half in an amount that bears the same ratio to the total amount to be allotted as the farm population of the State bears to the total farm population of all the States as determined by the last preceding decennial census current at the time such additional sum is first appropriated;
3. Not more than 25 per centum shall be allotted to the States for cooperative research in which two or more State agricultural experiment stations are cooperating to solve problems that concern the agriculture of more than one State. The funds available for such purposes, together with funds available pursuant to subsection (b) hereof for like purposes shall be designated as the "Regional research fund, State agricultural experiment stations", and shall be used only for such cooperative regional projects as are recommended by a committee of nine persons elected by and representing the directors of the State agricultural experiment stations, and approved by the Secretary of Agriculture. The necessary travel expenses of the committee of nine persons in performance of their duties may be paid from the fund established by this paragraph.

4. (Repealed)

5. Three per centum shall be available to the Secretary of Agriculture for administration of this Act. These administrative funds may be used for transportation of scientists who are not officers or employees of the United States to research meetings convened for the purposes of assessing research opportunities or research planning.

(d) Of any amount in excess of \$90,000 available under this Act for allotment to any State, exclusive of the regional research fund, State agricultural experiment stations, no allotment and no payment thereof shall be made in excess of the amount which the State makes available out of its own funds for research and for the establishment and maintenance of facilities necessary for the prosecution of such research: *And provided further*, That if any State fails to make available for such research purposes for any fiscal year a sum equal to the amount in excess of \$90,000 to which it may be entitled for such year, the remainder of such amount shall be withheld by the Secretary of Agriculture and reapportioned among the States.

(e) "Administration" as used in this section shall include participation in planning and coordinating cooperative regional research as defined in subsection 3(c)3.

(f) In making payments to States, the Secretary of Agriculture is authorized to adjust any such payment to the nearest dollar.

(g) If in any year the amount made available by a State from its own funds (including and revenue-sharing funds) to a State agricultural experiment station is reduced because of an increase in an allotment made available under this Act, the allotment of the State agricultural experiment stations from the appropriations in the next succeeding fiscal year shall be reduced in an equivalent amount. The Secretary shall reapportion the amount of such reduction to other States for use by their agricultural experiment stations.

SECTION 4

Moneys appropriated pursuant to this Act shall also be available, in addition to meeting expenses for research and investigations conducted under authority of section 2, for printing and disseminating the results of such research, retirement of employees subject to the provisions of an Act approved March 4, 1940 (54 Stat. 39), administrative planning and direction and for the purchase and rental of land and the construction, acquisition, alteration, or repair of buildings necessary for conducting research. The State agricultural experiment stations are authorized to plan and conduct any research authorized under section 2 of this Act in cooperation with each other and such other agencies and individuals as may contribute to the solution of the agricultural problems involved, and moneys appropriated pursuant to this Act shall be available for paying the necessary expenses of planning, coordinating, and conducting such cooperative research.

SECTION 5

Sums available for allotment to the States under the terms of this Act, excluding the regional research fund authorized by subsection 3(c)3, shall be paid to each State agricultural experiment station in equal quarterly payments beginning on the first day of October of each fiscal year upon vouchers approved by the Secretary of Agriculture. Each such station authorized to receive allotted funds shall have a chief administrative officer known as a director, and a treasurer or other officer appointed by the governing board of the station. Such treasurer or other officer shall receive and account for all funds allotted to the State under the provisions of this Act and shall report, with the approval of the director to the Secretary of Agriculture on or before the first day of December of each year a detailed statement of the amount received under provisions of this Act during the preceding fiscal year, and of its disbursement on schedules

prescribed by the Secretary of Agriculture. If any portion of the allotted moneys received by the authorized receiving officer of any State agricultural experiment station shall by any action or contingency be diminished, lost, or misapplied, it shall be replaced by the State concerned and until so replaced no subsequent appropriation shall be allotted or paid to such State.

SECTION 6

Bulletins, reports, periodicals, reprints of articles, and other publications necessary for the dissemination of results of the researches and experiments, including lists of publications available for distribution by the experiment stations, shall be transmitted in the mails of the United States under penalty indicia: *Provided, however,* That each publication shall bear such indicia as are prescribed by the Postmaster General and shall be mailed under such regulations as the Postmaster General may from time to time prescribe. Such publications may be mailed from the principal place of business of the station or from an established subunit of said station.

SECTION 7

The Secretary of Agriculture is hereby charged with the responsibility for the proper administration of this Act, and is authorized and directed to prescribe such rules and regulations as may be necessary to carry out its provisions. It shall be the duty of the Secretary to furnish such advise and assistance as will best promote the purposes of this Act, including participation in coordination of research initiated under this Act by the State agricultural experiment station, from time to time to indicate such lines of inquiry as to him seem most important, and to encourage and assist in the establishment and maintenance of cooperation by and between the several State agricultural experiment stations, and between the stations and the United States Department of Agriculture.

On or before the first day of October in each year after the passage of this Act, the Secretary of Agriculture shall

ascertain as to each State whether it is entitled to receive its share of the annual appropriations for agricultural experiment stations under this Act and the amount which thereupon each is entitled, respectively, to receive.

Whenever it shall appear to the Secretary of Agriculture from the annual statement of receipts and expenditures of funds by any State agricultural experiment station that any portion of the preceding annual appropriation allotted to that station under this Act remains unexpended, such amount shall be deducted from the next succeeding annual allotment to the State concerned.

If the Secretary of Agriculture shall withhold from any State any portion of the appropriations available for allotment, the facts and reasons therefor shall be reported to the President and the amount involved shall be kept separate in the Treasury until the close of the next Congress. If the next Congress shall not direct such sum to be paid, it shall be carried to surplus.

SECTION 8

Nothing in this Act shall be construed to impair or modify the legal relation existing between any of the colleges or universities under whose direction State agricultural experiment stations have been established and the government of the States in which they are respectively located. States having agricultural experiment stations separate from such colleges or universities and established by law, shall be authorized to apply such benefits to research at stations so established by such States: *Provided,* That in any State in which more than one such college, university, or agricultural experiment station has been established the appropriations made pursuant to this Act for such State shall be divided between such institutions as the legislature of such State shall direct.

SECTION 9

The Congress may at any time, amend, suspend, or repeal any or all provisions of this Act.

Smith-Lever Act of 1914, as amended

SECTION 1

In order to aid in diffusing among the people of the United States useful and practical information on subjects relating to agriculture, home economics, and rural energy, and to encourage the application of the same, there may be continued or inaugurated in connection with the college or colleges in each State, Territory, or possession, now receiving, or which may hereafter receive, the benefits of the Act of Congress approved July second, eighteen hundred and sixty-two, entitled "An Act donating public lands to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts," and of the Act of Congress approved August thirtieth, eighteen hundred and ninety, agricultural extension work which shall be carried on in cooperation with the United States Department of Agriculture: Provided, That in any State, Territory, or possession in which two or more such colleges have been or hereafter may be established, the appropriations hereinafter made to such State, Territory, or possession shall be administered by such college or colleges as the legislature of such State, Territory, or possession may direct.

SECTION 2

Cooperative agricultural extension work shall consist of the development of practical applications of research knowledge and giving of instruction and practical demonstration of existing or improved practices or technologies in agriculture, home economics, and rural energy, and subject relating thereto to persons not attending or resident in said colleges in the several communities, and imparting information on said subjects through demonstrations, publications, and otherwise and for the necessary printing and distribution of information in connection with the foregoing; and this work shall be carried on in such manner as may be mutually agreed upon by the Secretary of Agriculture and the State agricultural college or colleges or Territory or possession receiving the benefits of this Act.

SECTION 3

(a) There are hereby authorized to be appropriated for the purposes of this Act such sums as Congress may from time to time determine to be necessary.

(b)(1) Out of such sums, each State and the Federal Extension Service shall be entitled to receive annually a sum of money equal to the sums available from the Federal cooperative extension funds for the fiscal year 1962, and subject to the same requirements as to furnishing of equivalent sums by the State, except that amounts heretofore made available to the Secretary for allotment on the basis of special needs shall continue available for use on the same basis.

(b)(2) There is authorized to be appropriated for the fiscal year ending June 30, 1971, and for each fiscal year thereafter, for payment to the Virgin Islands, Guam, and the Northern Mariana Islands, \$100,000 each, which sums shall be in addition to the sums appropriated for the several States of the United States and Puerto Rico under the provisions of this section. The amount paid by the Federal Government to the Virgin Islands and Guam pursuant to this paragraph shall not exceed during any fiscal year, except the fiscal years ending June 30, 1971, and June 30, 1972, when such amount may be used to pay the total cost of providing services pursuant to this Act, the amount available and budgeted for expenditure by the Virgin Islands and Guam for the purposes of this Act.

(c) Any sums made available by the Congress for further development of cooperative extension work in addition to those referred to in subsection (b) hereof shall be distributed as follows:

1. Four per centum of the sum so appropriated for each fiscal year shall be allotted to the Federal Extension Service for administrative, technical, and other services, and for coordinating the extension work of the department and the several States, Territories, and possessions.

2. Of the remainder so appropriated for each fiscal year 20 per centum shall be paid to the several States in equal proportions, 40 per centum shall be paid to the several States in the proportion that the rural population of each bears to the total rural population of the several States as determined by the census, and the balance shall be paid to the several States in the proportion that the farm population of each bears to the total farm population of the several States as determined by the census: Provided, That payments out of the additional appropriations for further development of extension work authorized herein may be made subject to the making available of such sums of public funds by the States from non-Federal funds for the maintenance of cooperative agricultural extension work provided for in the Act, as may be provided by the Congress at the time such additional appropriations are made: Provided further, That any appropriation made hereunder shall be allotted in the first and succeeding years on the basis of the decennial census current at the time such appropriation is made, and as to any increase, on the basis of decennial census current at the time such increase is first appropriated.

(d) The Federal Extension Service shall receive such additional amounts as congress shall determine for administration, technical, and other services and for coordinating the extension work of the Department and the several States, Territories, and possessions.

(e) Insofar as the provisions of subsections (b) and (c) of this section, which require or permit Congress to require

matching of Federal funds, apply to the Virgin Islands of the United States and Guam, such provisions shall be deemed to have been satisfied, for the fiscal years ending September 30, 1978, and September 30, 1979, only, if the amount budgeted and available for expenditure by the Virgin Islands of the United States and Guam in such years equal the amounts budgeted and available for expenditure by the Virgin Islands of the United States and Guam in the fiscal year ending September 30, 1977.

(f)(1) The Secretary of Agriculture may conduct educational, instructional, demonstration, and publication distribution programs through the Federal Extension Service and enter into cooperative agreements with private nonprofit and profit organizations and individuals to share the cost of such programs through contributions from private sources as provided in this subsection.

(f)(2) The Secretary may receive contributions under this subsection from private sources for the purposes described in paragraph (1) and provide matching funds in an amount not greater than 50 percent of such contributions.

SECTION 4

On or about the first day of October in each year after the passage of this Act, the Secretary of Agriculture shall ascertain as to each State whether it is entitled to receive its share of the annual appropriation for cooperative agricultural extension work under this Act and the amount which it is entitled to receive. Before the funds herein provided shall become available to any college for any fiscal year, plans for the work to be carried on under this Act shall be submitted by the proper officials of each college and approved by the Secretary of Agriculture. The Secretary shall ensure that each college seeking to receive funds under this Act has in place appropriate guidelines, as determined by the Secretary, to minimize actual or potential conflicts of interest among employees of such colleges whose salaries are funded in whole or in part with such funds. Such sums shall be paid in equal quarterly payments in or about October, January, April, and July of each year to the Treasurer or other officer of the State duly authorized by the laws of the State to receive the same, and such officer shall be required to report to the Secretary of Agriculture on or about the first day of April of each year, a detailed statement of the amount so received during the previous fiscal year and its disbursement, on forms prescribed by the Secretary of Agriculture.

SECTION 5

If any portion of the moneys received by the designated officer of any State for the support and maintenance of cooperative agricultural extension work, as provided in this Act, shall by any action or contingency be diminished or lost or be misapplied, it shall be replaced by said State, and

until so replaced no subsequent appropriation shall be apportioned or paid to said State. No portion of said moneys shall be applied, directly or indirectly, to the purchase, erection, preservation, or repair of any building or buildings, or the purchase or rental of land, or in college-course teaching, lectures in college, or any other purpose not specified in this Act. It shall be the duty of said colleges, annually, on or about the first day of January, to make to the Governor of the State in which it is located a full and detailed report of its operations in extension work as defined in this Act, including a detailed statement of receipts and expenditures from all sources for this purpose, a copy of which report shall be sent to the Secretary of Agriculture.

SECTION 6

If the Secretary of Agriculture finds that a State is not entitled to receive its share of the annual appropriation, the facts and reasons therefor shall be reported to the President, and the amount involved shall be kept separate in the Treasury until the expiration of the Congress next succeeding a session of the legislature of the State from which funds have been withheld in order that the State may, if it should so desire, appeal to Congress from the determination of the Secretary of Agriculture. If the next Congress shall not direct such sum to be paid, it shall be covered into the Treasury.

SECTION 7

Repealed. (Dealt with an annual report to Congress.)

SECTION 8

The Congress finds that there exists special circumstances in certain areas which cause such areas to be at a disadvantage insofar as agricultural development is concerned, which circumstances include the following:

- (1) There is concentration of farm families on farms either too small or too unproductive or both;
- (2) such farm operators because of limited productivity are unable to make adjustments and investments required to establish profitable operations;
- (3) the productive capacity of the existing farm unit does not permit profitable employment of available labor;
- (4) because of limited resources, many of these farm families are not able to make full use of current extension programs designed for families operating economic units nor are extension facilities adequate to provide the assistance needed to produce desirable results.

(b) In order to further the purposes of section 2 in such areas and to encourage complementary development essential to the welfare of such areas, there are hereby authorized to be appropriated such sums as the Congress from time to

time shall determine to be necessary for payments to the States on the basis of special needs in such areas as determined by the Secretary of Agriculture.

(c) In determining that the area has a special need, the Secretary shall find that it has a substantial number of disadvantaged farms or farm families for one or more of the reasons heretofore enumerated. The Secretary shall make provisions for the assistance to be extended to include one or more of the following:

(1) Intensive on-the-farm educational assistance to the farm family in appraising and resolving its problems;

(2) assistance and counseling to local groups in appraising resources for capability of improvement in agriculture or introduction of industry designed to supplement farm income;

(3) cooperation with other agencies and groups in furnishing all possible information as to existing employment opportunities, particularly to farm families having underemployed workers; and

(4) in cases where the farm family, after analysis of its opportunities and existing resources, finds it advisable to seek a new farming venture, the providing of information, advice, and counsel in connection with making such change.

(d) No more than 10 per centum of the sums available under this section shall be allotted to any one State. The Secretary shall use project proposals and plans of work submitted by the State Extension directors as a basis for determining the allocation of funds appropriated pursuant to this section.

(e) Sums appropriated pursuant to this section shall be in addition to, and not in substitution for, appropriations otherwise available under this Act. The amounts authorized to be appropriated pursuant to this section shall not exceed a sum in any year equal to 10 per centum of sums otherwise appropriated pursuant to this Act.

SECTION 9

The Secretary of Agriculture is authorized to make such rules and regulations as may be necessary for carrying out the provisions of this Act.

SECTION 10

1 The term “State” means the States of the Union, Puerto Rico, the Virgin Islands, Guam, and the Northern Mariana Islands.

(Code reference is 7 U.S.C. 341 et seq.)

1 P.L. 96-374, Section 1361(c) states: Any provision of any Act of Congress relating to the operation or provision of assistance to a land-grant college in American Samoa and in Micronesia in the same manner and to the same extent.

Improving America’s School Act of 1994*

Title V Miscellaneous Provisions

PART C—1994 INSTITUTIONS

SEC. 531. Short Title.

This part may be cited as the “Equity in Educational Land-Grant Status Act of 1994.”

[An act conferring Land-Grant status on 29 tribal colleges.]

SEC. 532. DEFINITION.

As used in this part, the term “1994 Institutions” means any one of the following colleges: (1) Bay Mills Community College (2) Blackfeet Community College. (3) Cheyenne River Community College. (4) D-Q University (5) Dullknife Memorial College. (6) Fond Du Lac Community College. (7) Fort Belknap Community College (8) Fort Berthold Community College (9) Fort Peck Community College (10) LacCourte Orielles Ojibwa Community College (11) Little Big Horn Community College. (12) Little Hoop Community College. (13) Nebraska Indian Community College (14) Northwest Indian College. (15) Oglala Lakota College. (16) Salish Kootenai College. (17) Sinte Gleska University. (18) Sisseton Wahpeton Community College. (19) Standing Rock College. (20) Stonechild Community College. (21) Turtle Mountain Community College (22) Navajo Community College. (23) United Tribes Technical College (24) Southwest Indian Polytechnic Institute. (25) Institute of American Indian and Alaska Native Culture and Arts Development. (26) Crownpoint Institute of Technology. (27) Haskell Indian Junior College. (28) Leech Lake Tribal College. (29) College of the Menominee Nations.

SEC. 533. LAND-GRANT STATUS FOR 1994 INSTITUTIONS.

(a) In General—

(1) Status of 1994 Institutions.—Except as provided in paragraph (2), 1994 Institutions shall be considered land-grant colleges established for the benefit of agriculture and the mechanic arts in accordance with the provisions of the Act of July 2, 1862 (12 Stat. 503, 7 U.S.C. 301 et seq.) (commonly known as the First Morrill Act).

(2) 1994 Institutions.

(A) 1994 Institutions shall not be considered as land-grant colleges that are eligible to receive funding under—

* As of 2007, there are 32 Tribal College Land-Grant Institutions. For a current list, see pages 8–9.

(i) the Act of March 2, 1887 (24 Stat. 440, chapter 314; 7 U.S.C. 361a et seq.)

(ii) the Act of May 8, 1914 (38 Stat. 373, chapter 79; 7 U.S.C. 343), except as provided under section 3(b)(3) of such Act (as added by section 534(b)(1) of this part); or

(iii) the Act of August 30, 1890 (26 Stat. 417, chapter 841, 7 U.S.C. 321 et seq.) (commonly known as the Second Morrill Act.)

(B) In lieu of receiving donations under the provisions of the Act of July 2, 1862 (12 Stat. 503; 7 U.S.C. 301 et seq.) (commonly known as the First Morrill Act), relating to the donations of public land or scrip for the endowment and maintenance of colleges for the benefit of agriculture and the mechanic arts, 1994 Institutions shall receive funding pursuant to the authorization under subsection (b).

(b) Authorization of Appropriations.—There are authorized to be appropriated \$4,600,000 for each of fiscal years 1996 through 2000. Amounts appropriated pursuant to this section shall be held and considered to have been granted to 1994 Institutions to establish an endowment pursuant to subsection (c).

(c) Endowment.—

(1) In General.—In accordance with this subsection, the Secretary of the Treasury shall establish a 1994 Institutions Endowment Fund (hereafter in this subsection referred to as the “endowment fund”). The Secretary may enter into such agreements as are necessary to carry out this subsection.

(2) Deposit of the Endowment Fund.—The Secretary shall deposit in the endowment fund any—

(A) amounts made available by appropriations pursuant to subsection (b) (hereafter in this subsection referred to as the “endowment fund corpus”); and

(B) interest earned on the endowment fund corpus.

(3) Investments.—The Secretary shall invest the endowment fund corpus and income in interest-bearing obligations of the United States.

(4) Withdrawals and Expenditures.—The Secretary may not make a withdrawal or expenditure from the endowment fund corpus. On the termination of each fiscal year, the Secretary shall withdraw the amount of the income from the endowment fund for the fiscal year, and after making adjustments for the cost of administering the endowment fund, distribute the adjusted income as follows:

(A) 60 percent of the adjusted income shall be distributed among the 1994 Institutions on a pro rata basis. The proportionate share of the adjusted income received by a 1994 Institution under this subparagraph shall be based on

the Indian student count (as defined in section 390(3) of the Carl D. Perkins Vocational and Applied Technology Education Act (20 U.S.C. 2397h(3)) for each 1994 Institution for the fiscal year.

(B) 40 percent of the adjusted income shall be distributed in equal shares to the 1994 Institutions.

SEC. 534. APPROPRIATIONS.

(a) Authorization of Appropriations.—

(1) In General.—For fiscal year 1996, and for each fiscal year thereafter, there are authorized to be appropriated to the Department of the Treasury an amount equal to—

(A) \$50,000; multiplied by

(B) the number of 1994 Institutions.

(2) Payments—For each fiscal year, the Secretary of the Treasury shall pay to the treasurer of each 1994 Institution an amount equal to—

(A) the total amount made available by appropriations pursuant to paragraph (1); divided by

(B) the number of 1994 Institutions.

(3) Use of Funds; Requirements.—The amounts authorized to be appropriated under this subsection shall be used in the same manner as is prescribed for colleges under the Act of August 30, 1890 (26 Stat. 417, chapter 841, 7 U.S.C. 321 et seq.) (commonly known as the Second Morrill Act), and, except as otherwise provided in this subsection, the requirements of such Act shall apply to 1994 Institutions.

(b) Funding.—Section 3 of the Act of May 8, 1914 (38 Stat. 373, chapter 79; 7 U.S.C. 343) is amended—

(1) in subsection (b), by adding at the end the following new paragraph:

“(3) There are authorized to be appropriated for the fiscal year ending June 30, 1996, and for each fiscal year thereafter, for payment on behalf of the 1994 Institutions (as defined in section 532 of the Equity in Educational Land-Grant Status Act of 1994), \$5,000,000 for the purposes set forth in section 2. Such sums shall be in addition to the sums appropriated for the several States and Puerto Rico, the Virgin Islands, and Guam under the provisions of this section. Such sums shall be distributed on the basis of a competitive application process to be developed and implemented by the Secretary and paid by the Secretary to State institutions established in accordance with the provisions of the Act of July 2, 1862 (12 Stat. 503, chapter 130; 7 U.S.C. 301 et seq.) (commonly known as the First Morrill Act) (other than 1994 Institutions) and administered by such institutions through cooperative agreements with 1994 Insti-

tutions in the States of the 1994 Institutions in accordance with regulations that the Secretary shall adopt.”

- (2) by redesignating subsection (f) as subsection (g), and
- (3) by inserting after subsection (e) the following new subsection: (f) There shall be no matching requirement for funds made available pursuant to subsection (b)(3).”

SEC. 535. INSTITUTIONAL CAPACITY BUILDING GRANTS.

(a) Definitions.—As used in this section:

- (1) Federal Share.—The term “Federal share” means with respect to a grant awarded under subsection (b), the share of the grant that is provided from Federal funds.
- (2) Non-Federal Share.—The term “non-Federal share” means, with respect to a grant awarded under subsection (b) the matching funds paid with funds other than funds referred to in paragraph (1), as determined by the Secretary.
- (3) Secretary.—The term “Secretary” means the Secretary of Agriculture.

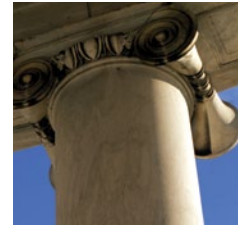
(b) In General.—

- (1) Institutional Capacity Building Grants.—For each of fiscal years 1996 through 2000, the Secretary shall make two or more institutional capacity building grants to assist 1994 Institutions with constructing, acquiring, and remodeling buildings, laboratories, and other capital facilities (including

fixtures and equipment) necessary to conduct instructional activities more effectively in agriculture and sciences.

- (2) Requirements for Grants.—The Secretary shall make grants under this section—
 - (A) on the basis of a competitive application process under which appropriate officials of 1994 Institutions may submit applications to the Secretary in such form and manner as the Secretary may prescribe; and
 - (B) in such manner as to ensure geographic diversity with respect to the 1994 Institutions that are the subject of the grants.
- (3) Demonstration of Need.—The Secretary shall require as part of an application for a grant under this subsection, a demonstration of need. The Secretary may only award a grant under this subsection to an applicant that demonstrates a failure to obtain funding for a project after making a reasonable effort to otherwise obtain the funding.
- (4) Payment of Non-Federal Share.—A grant awarded under this subsection shall be made only if the recipient of the grant pays a non-Federal share in an amount specified by the Secretary.
- (c) Authorization of Appropriations.—There are authorized to be appropriated to the Department of Agriculture to carry out this section, \$1,700,000 for each of fiscal years 1996 through 2000.

For Further Reading



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ASSOCIATION OF PUBLIC AND LAND-GRANT UNIVERSITIES



The Association of Public and Land-grant Universities (A•P•L•U) is a research and advocacy organization of public research universities, land-grant institutions, and many state university systems. The association's overriding mission is to support high-quality public higher education and its member institutions as they perform their learning, discovery and engagement missions.

The association's 217 members include campuses in all 50 states, the District of Columbia and the U.S. territories. The membership consists of 187 public and land-grant universities, 25 state university systems, and five higher education-related organizations. The total includes 74 U.S. land-grant institutions, of which 18 are historically black institutions. In addition, A•P•L•U represents the interests of the nation's American Indian land-grant colleges through the membership of the American Indian Higher Education Consortium (AIHEC).

A•P•L•U campuses enroll more than 3.6 million undergraduate and 1.1 million graduate students, employ more than 645,000 faculty and professional staff, and conduct nearly two-thirds of all federally funded university-based research, totaling more than \$34 billion annually.

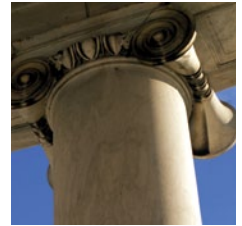
With a legacy dating back to 1887, A•P•L•U is the nation's oldest higher education association. The organization adopted a new name in March 2009; it was previously known as the National Association of State Universities and Land-Grant Colleges (NASULGC). A•P•L•U is governed by a Chair and a Board of Directors, and led by President Peter McPherson, who directs a staff of more than 40.

A•P•L•U provides a forum for the discussion and development of policies affecting higher education and the public interest. The agenda includes:

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- Understanding and controlling college costs, while maintaining quality
- Developing a Voluntary System of Accountability and *CollegePortraits.org*[®]
- Establishing the Science and Mathematics Teacher Imperative (SMTI)
- Advocating for federal investment in student aid and science research
- Planning for the 2012 Farm Bill and expanding agriculture research, education and cooperative extension
- Promoting the role of public universities in solving the nation's energy challenge
- Significantly expanding study abroad
- Strategically expanding online learning
- Promoting U.S.-African university partnerships
- Improving university participation in regional economic growth
- Advocating for access, inclusiveness and student success in higher education for underrepresented groups

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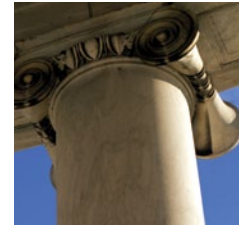
www.aplu.org



History of the Association of Public and Land-grant Universities

- 1862** — First Morrill Act is passed, providing federal lands to the states to be sold to support colleges of agriculture and mechanical arts.
- 1871** — Representatives from 29 land-grant institutions meet in Chicago to discuss common issues; the gathering urges the establishment of agricultural experiment stations.
- 1872** — The U.S. Commissioner of Agriculture convenes a meeting of agricultural colleges, societies and others; the group discusses additional land-grants, experiment stations, and military training.
- 1877, 1882, 1883** — “Unofficial” gatherings of land-grant leaders are held.
- 1885** — Colleges of agriculture representatives meet in Washington, D.C., with representatives of the Department of Agriculture. The group agrees to create a formal association and hold annual conventions.
- 1887** — The Hatch Act is passed, mandating the creation of agricultural experiment stations for scientific research.
- 1887** — The first annual convention of the Association of American Agricultural Colleges and Experiment Stations is held in Washington, D.C. George W. Atherton, president of Pennsylvania State University, is elected president, and membership is limited to colleges receiving benefits under the 1862 Morrill Act and the 1887 Hatch Act. The association begins work in support of the second Morrill Act.
- 1890** — The Second Morrill Act is passed, providing further endowment for colleges. Part of the funding is to be used for institutions for black students, leading to the creation of 17 historically black land-grant colleges.
- 1896** — The National Association of State Universities is founded, representing “major” state universities, including land-grant colleges.
- 1912** — Deans of engineering organize the Land-Grant College Engineering Association.
- 1914** — The Smith-Lever Act is passed, providing federal support for land-grant institutions to offer instruction beyond their campuses through cooperative extension efforts in agriculture and home economics.
- 1919** — The Land-Grant College Engineering Association and the Association of American Agricultural Colleges and Experiment Stations merge to form the American Association of Land-Grant Colleges.
- 1920** — A home economics section is added to the American Association of Land-Grant Colleges.
- 1926** — The association’s name is changed to the Association of Land-Grant Colleges and Universities.
- 1939** — Graduate studies are added to the association’s agenda.
- 1945** — A liberal arts component is added to the association.
- 1945** — Russell I. Thackery is named the first full-time salaried executive secretary of the association and its headquarters is located permanently in Washington, D.C.
- 1948** — The veterinary medicine division is added to the association.
- 1950** — The Council of General Extension is added to the association.
- 1954** — The historically black land-grant institutions join the association.
- 1954** — The association’s name is changed to the American Association of Land-Grant Colleges and State Universities, in anticipation of a merger with the National Association of State Universities and the State Universities Association (non-land-grant state universities).
- 1963** — The completed merger formally creates the National Association of State Universities and Land-grant Colleges (NASULGC) which undergoes major changes in structure and governance.

- 1966** — The National Sea Grant College Act is passed with a mission of research, teaching and education in marine and coastal sciences. Many of the sea-grant colleges are established at land-grant universities.
- 1969** — Russell I. Thackery retires and is succeeded by Ralph K. Huitt as executive director of the association.
- 1979** — Ralph K. Huitt retires and is succeeded by Robert L. Clodius, who is designated president.
- 1987** — NASULGC's Centennial is celebrated.
- 1987** — The Thurgood Marshall Scholarship Fund is established, supporting scholarships at the historically black public colleges and universities.
- 1990** — A Charter for the Nineties and Beyond, a year-long study of the association, is completed and approved in principle by its Senate.
- 1992** — Robert L. Clodius retires and C. Peter Magrath becomes NASULGC's president, and new bylaws are adopted that streamline the association's structure.
- 1995** — The American Indian Higher Education Consortium (AIHEC), representing the nation's land-grant Native American colleges, becomes a member of NASULGC as a system.
- 1998** — NASULGC purchases a building jointly with three other higher education associations and moves to new offices located at 1307 New York Avenue, N.W., Washington D.C. 20005.
- 2005** — C. Peter Magrath retires as president; M. Peter McPherson is appointed president.
- 2009** — The association adopts a new name on March 30: Association of Public and Land-grant Universities.
- 2012** — The Sesquicentennial Anniversary of the Morrill Act of 1862 is observed from November 2011 to November 2012.



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Louisiana State University System
 Oklahoma State Regents for Higher Education
 Oregon University System
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AMERICAN SAMOA

American Samoa Community College¹

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 The University of Arizona¹

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University of Connecticut¹

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² Indicates a Historically Black College or University

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 Georgia Southern University
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University of Guam¹

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University of Hawai'i at Manoa¹

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 Idaho State University
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 Southern Illinois University Carbondale
 University of Illinois at Chicago
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 Indiana University
 Indiana University-Purdue University Indianapolis
 Purdue University¹

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 The University of Iowa

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 The University of Kansas
 Wichita State University

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 Southern University and A&M College, Baton Rouge^{1,2}
 University of Louisiana at Lafayette
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 University of Maryland, Baltimore County
 University of Maryland, College Park¹
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 University of Maryland University College

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¹ Indicates a land-grant institution as designated by the state legislature

² Indicates a Historically Black College or University

³ Indicates a Hispanic Serving Institution

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Cleveland State University
Kent State University
Miami University
Ohio University
The Ohio State University¹
The University of Akron
The University of Toledo
University of Cincinnati
Wright State University

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University of South Dakota

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The University of Tennessee, Knoxville¹

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Texas Tech University
University of Houston
University of North Texas
The University of Texas at Arlington
The University of Texas at Austin
The University of Texas at Dallas
The University of Texas at El Paso³
The University of Texas at San Antonio³

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Utah State University¹

VERMONT

The University of Vermont¹

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Virginia Polytechnic Institute & State University (Virginia Tech)¹
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The Connecticut Agricultural Experiment Station¹
Institute for Shipboard Education/Semester at Sea
University of Wisconsin-Extension

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FEBRUARY 2012