

Key Findings:

- The Agricultural Act of 2014 for the first time recognizes rural community colleges in federal statute; it represents a tremendous opportunity for the U.S. Department of Agriculture (USDA) to provide sector leadership across all federal agencies and departments to spark regional rural development. The Rural Community College Alliance looks forward to playing a leadership role with the Secretary to operationalize Section 6018.
- The current fiscal strain rural community colleges face is *significantly higher* than their urban or suburban counterparts.
- Among 289 community colleges with housing, 253 (88%) are rural community colleges according to the Carnegie Foundation for the Advancement of Teaching's 2010 Basic Classification of Associate's Colleges.
- The Engineering Technology program at Itasca Community College, its partnership with Minnesota State University-Mankato, and area industries shows how on-campus housing and creative leveraging of federal, state, and private funds can build capacity to provide a place-based high-skill high-wage rural workforce.
- Revenue from increased enrollment with on-campus housing helps colleges to fund programs leveraged with other funding streams (including Pell Grants), reduce access barriers, bolster student success, and lower time-to-degree in rural areas.
- Despite apparently low penetration on the part of USDA into state community college policy conversations, there is high recognition among state-level community college leaders that rural community colleges are "the only game in town" to provide economic uplift.

Leveraging Federal Funding Streams to Build Rural Economies

By Stephen G. Katsinas, Ryan P. Hofman, Louis E. Shedd, J. Lucas Adair, Jonathan P. Koh, and Michael S. Malley, The University of Alabama; James E. Davis, Mississippi State University; Janice N. Friedel, Iowa State University; and Mark M. D'Amico, University of North Carolina at Charlotte

Introduction

For the 150 years since the passage of the first and second Morrill Land-Grant College Acts in 1862 and 1890, the only set of colleges and universities recognized in statute with the charge of rural development in the United States were land grant colleges and universities. This changed with the inclusion of Section 6013 of the Agricultural Act of 2014, which called for a "Rural College Coordinated Strategy":

(1) IN GENERAL — The Secretary shall develop a coordinated strategy across the relevant programs within the Rural Development mission areas to serve the specific, local needs of rural communities when making investments in rural community colleges and technical colleges through other authorities in effect on the date of enactment of this subsection.

(2) CONSULTATION — In developing a coordinated strategy, the Secretary shall consult with groups representing rural-serving community colleges and technical colleges to coordinate critical investments in rural community colleges and technical colleges involved in workforce training.¹

This legislation marks the first time in American history that the U.S. Department of Agriculture, which has statutory responsibility for the economic and community development of Rural America, recognized in statute the primary "boots in the dirt" role that the nation's 600 rural and tribal colleges provide in promoting regional rural advantage.

This issue brief, written by the Education Policy Center at The University of Alabama and its partners at the Stennis Institute of Government at Mississippi State University, Iowa State University, and the University of North Carolina at Charlotte for the Rural Community College Alliance, is organized as follows: Part One presents what key state-level community college leaders believe are issues facing their rural community colleges and the relative importance they believe an array of federal programs are to their colleges, based upon a national survey of all 51 members of the National Council of State Directors of Community Colleges. Part Two presents the results of a national census of community colleges and the critically important role played by on-campus housing. Part Three highlights several examples of innovative partnerships to leverage diverse federal funding streams to accomplish the larger goal of regional rural uplift, and, in particular, to show how on-campus housing can be a powerful tool for USDA/Rural Development to spur other federal funding streams to meet critical rural workforce training needs. Recommendations for USDA to consider, consistent with the historic charge contained in Section 6013 of the Agricultural Act of 2014, are offered.

Part One: Issues Facing Rural Community Colleges and Federal Funding Streams

Recent studies reveal an arc of persistent poverty stretching from the Appalachians of western Virginia through the Carolinas and the Deep South states all the way to east Texas. Additionally, with the exception of the boom in natural gas states such as North Dakota, many rural areas of our nation are experiencing sluggish unemployment rates as the nation recovers from a severe recession.² How do state-level community college leaders see the role of their rural community colleges to address persistent high unemployment? With expanding job prospects a key issue for both political parties, how do state level leaders rate the relative importance of federal programs to their community colleges?

Figure 1: Rural Community Colleges face the greatest fiscal strain among all types of community colleges

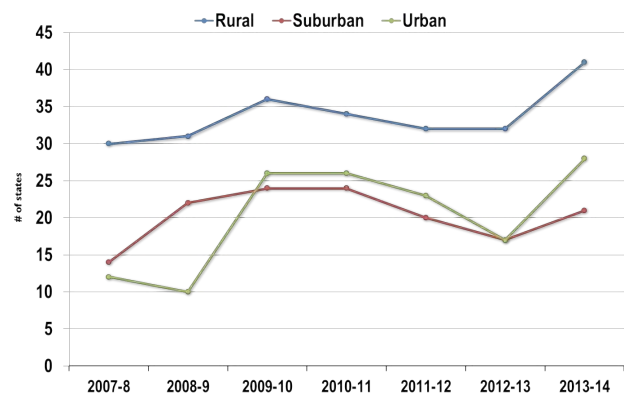
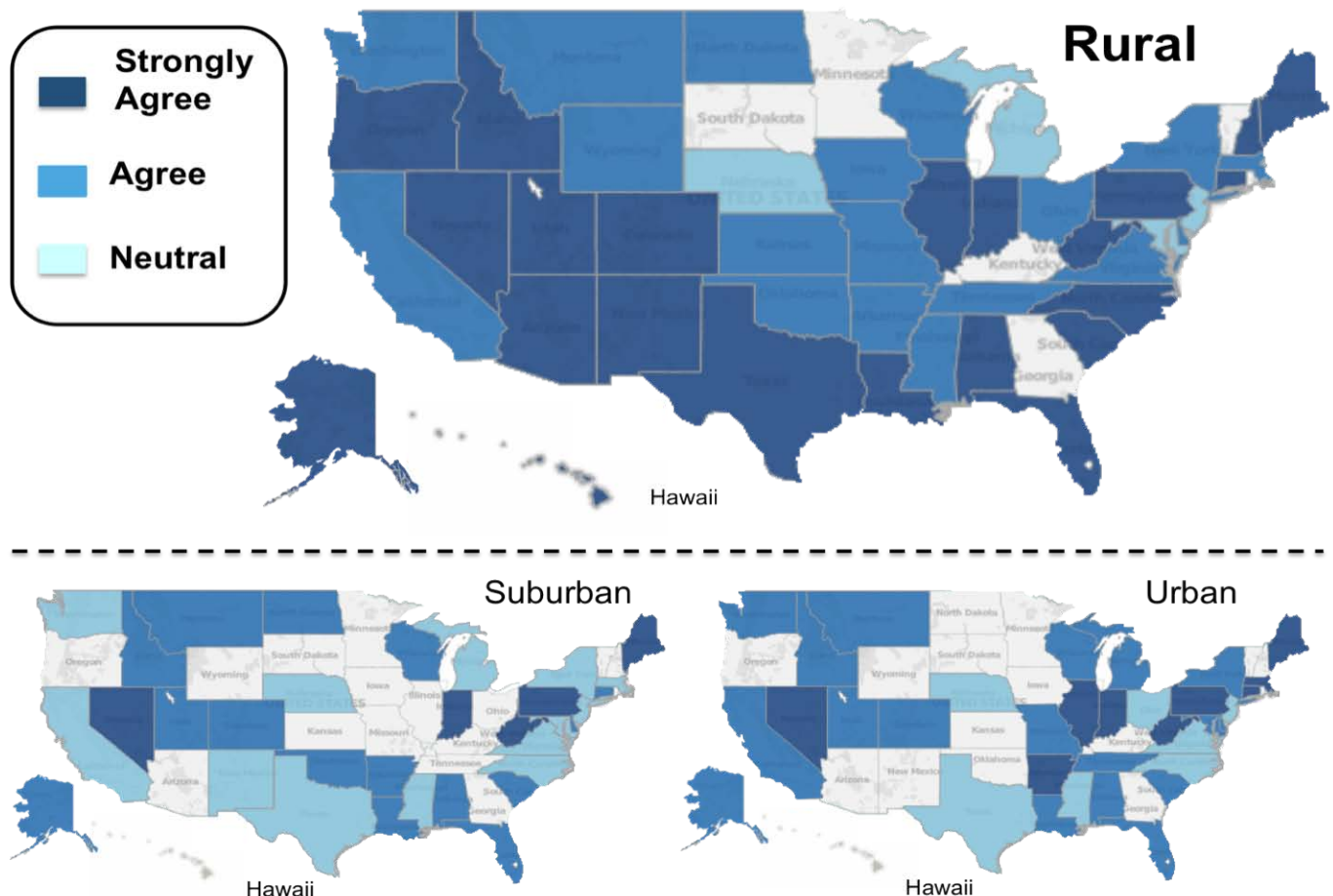


Figure 2: State community college leaders predict their rural colleges will face the greatest fiscal strain in FY2013-14



To address these questions, the Education Policy Center surveyed the 51 members of the National Council of State Directors of Community Colleges as part of its 2013 National Survey of Access and Finance Issues. Figure 1 shows that a higher number of state community college directors indicate their rural community colleges were facing higher fiscal strain than at any time in recent years. The fiscal strain rural community colleges face is significantly higher than their urban or suburban counterparts, with 41 of 47 responding state directors indicating their rural community colleges would face the greatest fiscal strain.

Figures 2 and 3 also show how geography matters. When asked which type of community college (urban, suburban, rural) would face the greatest fiscal strain for FY2013-2014, 28 of 44 (64%) indicated their urban community colleges; 21 of 43 responding (49%) indicated their suburban community colleges; and 41 of 47 (87%) indicated their rural community colleges. All types of community colleges are predicted to face fiscal strain in 2013-2014, but rural community colleges face the highest reported levels.

Figure 3 shows responses to the item “Some of my state’s rural community colleges are challenged due to the low property tax wealth areas they are assigned to serve.” Of 47 respondents, 27 (58%) were in agreement, 9 (19%) were neutral, and 11 (23%) were in disagreement. According to Illinois State University’s *Grapevine*, which has tracked state tax appropriations for public higher education annually since 1960, there are 25 states where the total revenues from state appropriations for public community colleges exceeds 10%, and 25 states where total revenues from state appropriations for public community colleges is lower than 10%. In most of the 25 states without signifi-

cant local support, local contributions approach zero.³ In both the 2001 and 2009-2011 recessions, the percentage of mid-year budget cuts and predicted cuts in state appropriations were deeper in the 25 states with local support. In an age of devolving state funding for the 13th and 14th years, should community colleges be effectively penalized with much lower access to local resources solely because their state-assigned service delivery areas include larger proportion of lower socio-economic people?

A major objective of the 1947 Truman Commission was promoting geographic access to postsecondary education in the United States, as to few community colleges had been founded, and not all of those in operation were accessibly located.⁴ By 1980, the Commission’s goal was largely accomplished by the states.⁵ In a 2006 Rural Community College Alliance/MidSouth Partnership for Rural Community Colleges Issue Brief written by the Education Policy Center, state disinvestment in community colleges began in the early 1980s:

- *In FY1980-81, 16 states provided 60 percent or more of the total revenues for their community colleges; by 2000-01, none did.*
- *In FY1980-81, 55 percent of U.S. community college student were enrolled in the 22 states where state revenues were 50 percent or more of the total; by FY2000-1, just 8 percent in 7 states were enrolled.*⁶
- *EPC state-level studies: 34 of 46 states took mid-year cuts in FY2003 recession; 34 of 48 in FY2010. Cuts were deeper in the 25 states with local funding \geq 10% of total funds.*⁷
- *If, in 2013, state appropriations per \$1,000 of personal income at the 1980 rate, states would have appropriated \$135 billion for public higher education, not the \$72 billion they did.*⁸
- *Among 1,014 U.S. community colleges, 96 institutions in FY2011-2012 received less than 5% of their total revenue from state appropriations.*⁹

A spate of reports, books, and articles have documented the long-term decline in state tax support for public higher education in recent years,¹⁰ including specific reports on rural community colleges. Of these, the Delta Cost Project has been perhaps the highest profile set of studies. We note here is that the long term decline in state appropriations for public community colleges began two decades before Delta began to track revenue components for public higher education institutions.

Figure 3: “Some of my state’s rural community colleges are challenged due to the low property tax wealth areas they are assigned to serve.”

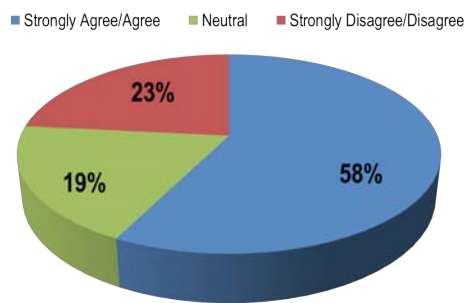
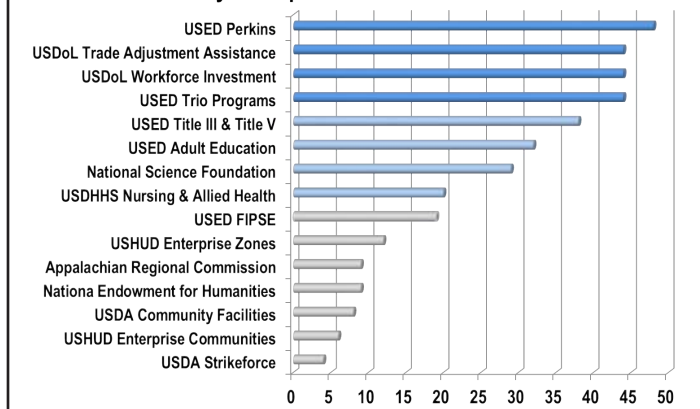


Figure 4: Federal Programs state community college leaders identify as important to their institutions



Federal Programs and Rural Community Colleges

Attention is now turned to an analysis of federal programs identified by state-level community college leaders as important to their state's community colleges. Figure 4 shows how state-level leaders responded when asked to rate the relative importance of selected federal programs for their community colleges. It is clear that U.S. Department of Education programs under the Perkins Act for technical and vocational education, Higher Education Act Title III/Title V "Strengthening Developing Institutions," TRIO programs (Talent Search, Upward Bound, Student Support Services, etc.), and Adult Basic Education and Family Literacy Act Programs are highly rated as important by state community college leaders. Key U.S. Department of Labor programs, including those funded by Trade Adjustment Assistance and the Workforce Investment Act, are rated as significant by more than 40 respondents.

We note, however, a significant drop-off for other programs, such as the U.S. Department of Health and Human Services' Nursing and Allied Health programs, USED Fund for the Improvement of Postsecondary Education (FIPSE), and U.S. Department of Housing and Urban Development Enterprise Zones programs.

Most significantly for rural community colleges, the U.S. Department of Agriculture, the federal agency with statutory programmatic responsibility to assist rural development, rates low for two of its key programs. The USDA Community Facilities program, which makes low-interest long-term loans for infrastructure to non-private governmental entities in rural America, has seen its loan authority as a revolving loan program expand from about \$1.7 to nearly \$5 billion from FY2009 to FY2014. Yet state community college leaders from just 8 states rated

Community Facilities "important" to their states' community colleges.

With 85% of America's persistently high poverty counties located in rural America, the U.S. Department of Agriculture announced its StrikeForce for Rural Growth and Opportunity Initiative as a pilot program in 2010, in rural Arkansas, Georgia, and Mississippi.¹¹ The goal of the program is

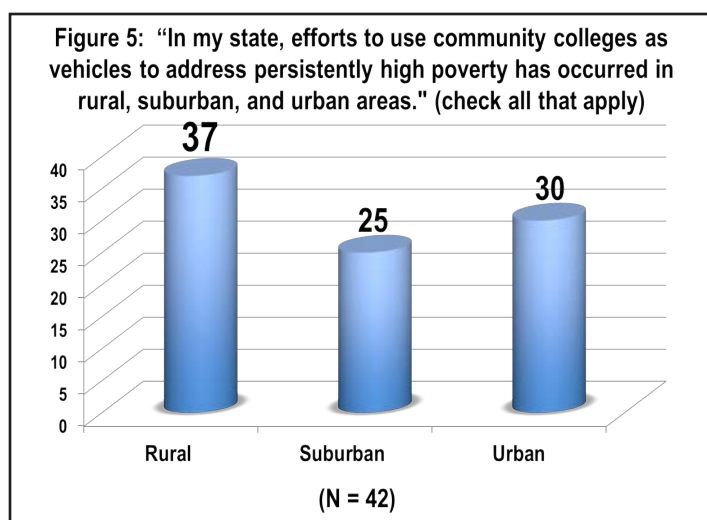
"...to address the unique set of challenges faced by many of America's rural communities. Through StrikeForce, USDA is leveraging resources and collaborating with partners and stakeholders to improve economic opportunity and quality of life in these areas."

"StrikeForce now operates in over 700 rural counties, parishes, boroughs, tribal reservations, and colonias in 20 states, including Alabama, Alaska, Arkansas, Arizona, Colorado, Georgia, Kentucky, Louisiana, Mississippi, Nevada, New Mexico, North Carolina, North Dakota, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia and West Virginia."¹²

When state community college leaders were asked to indicate the importance of various federal programs, StrikeForce was not perceived as important to community colleges in most states. Respondents from just 4 states indicated that StrikeForce was important to their states' community colleges. It is worth noting that survey responses do not necessarily mean that the lower ranked programs are not achieving their intended purposes, nor does it diminish their importance. In fact, some of these programs may be viewed as important by fewer respondents due to total funding associated with each program, the number of community colleges each program serves, or the number of students reached by each program. In these days of lower state, and in some cases local revenues, all federal programs that fund special initiatives, support community college students, and advance the community college mission are critically important and necessary alternative funding sources for two-year institutions.

Despite the apparently low penetration on the part of the U.S. Department of Agriculture into state community college policy conversations, there is high recognition

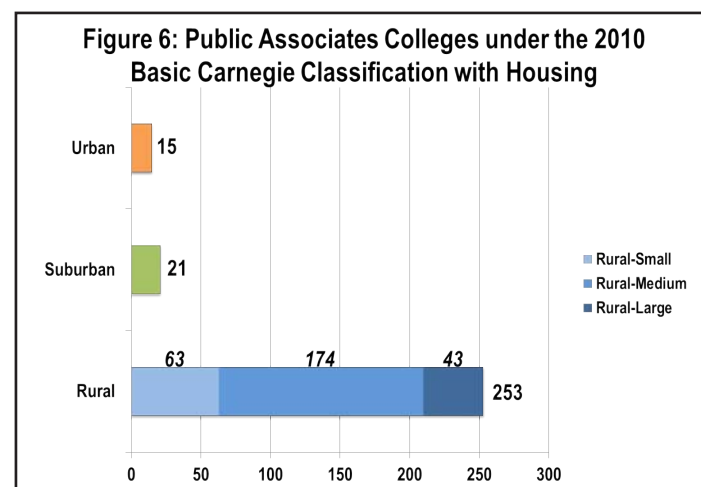
among state-level community college leaders that rural community colleges are “the only game in town” in terms of providing economic and community development oriented programs and services in their service areas. When asked to respond to the item, “In my state, efforts to use community colleges as vehicles to address concerns in persistently high poverty has occurred in rural, suburban, and/or urban areas,” 25 of 42 (60%) responded suburban, 30 of 42 or (71%) responded urban, and 37 of 42 (88%) responded rural. While the responses provide insights into the roles in all three geographic settings, the view of community colleges as institutions to mitigate poverty is most prevalent in rural areas.



Part Two: The Critical Role On-Campus Housing at Rural Community Colleges Plays in Providing Economies of Scale

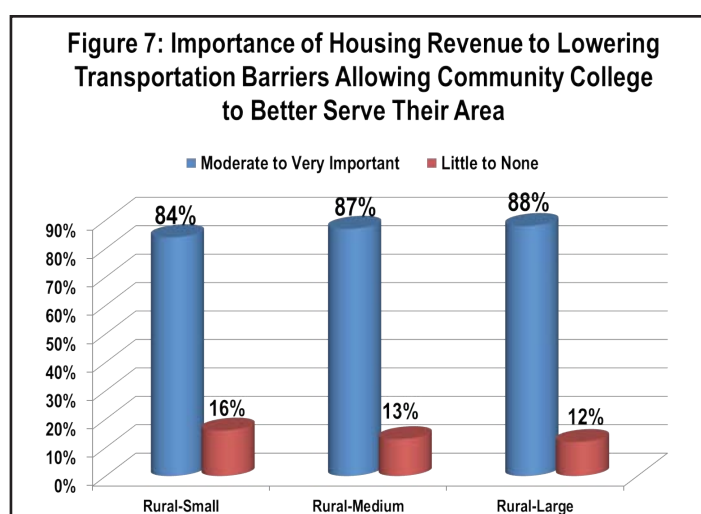
In 2004, Pat G. Moeck completed a national census of U.S. community colleges with on-campus housing analyzing U.S. Department of Education Integrated Postsecondary Education Data System (IPEDS) data from 2001-2002.¹³ Three refereed journal articles¹⁴ and an issue brief written by Moeck, Hardy, and Katsinas for the MidSouth Partnership for Rural Community Colleges and the Rural Community College Alliance¹⁵ resulted from this ground-breaking work. She found most of America’s rural community colleges had on-campus housing to provide a true college experience and to provide an economy of scale to offer a wider array of programs and services to their full- and part-time students. An important conclusion was that a serious under-reporting by community colleges to USED’s IPEDS data system existed.

In his 2014 census of the USED/IPEDS database for 2010-2011, Ryan P. Hofman (forthcoming) identified a total of 1,061 public two-year colleges. Of these, 245 reported to IPEDS in the 2010-2011 academic year they possessed on-campus housing.¹⁶ In light of the undercount of community colleges in IPEDS revealed by Moeck, Hofman then reviewed the websites of all 1,061 community colleges in IPEDS, and found an additional 44 community colleges with housing. Thus, Hofman found a total of 289 community colleges in the United States among the 1,061 (27%) offer on-campus housing. Figure 6, below, shows that most of the community college reporting units in the country are rural-based. Given their need to provide and extend access services, it is not surprising that, like Moeck and her colleagues, Hofman found the vast majority of U.S. community colleges with on campus housing were in rural areas: Among 289 community colleges providing housing, 253 (88%) are identified as rural community colleges according to the Carnegie Foundation for the Advancement of Teaching’s 2010 Basic Classification of Associate’s Colleges. By Carnegie sub-class, among the 253 rural community colleges with housing, 63 of the 253 (25%) were Rural-Small; 174 (58%) were Rural-Medium, and 43 (17%) were Rural-Large institutions.



The heavy skewing of rural serving institutions providing on-campus housing options is not surprising for two reasons. The first is the population served by the institutions. According to the Carnegie Foundation website (2014, February), by definition, rural institutions are not located in areas with even a moderate population density according to the 2000 census. A major goal of the 1947 Truman Commission, which popularized the term “com-

munity colleges,” was to extend and promote postsecondary access to all geographic regions of the country.¹⁷ This specifically included rural areas with low population density. Some rural institutions have a service radius of 90 miles or more, making a commute to class a much higher hurdle for students attending rural institutions, and these colleges lack publicly subsidized mass transit.¹⁸ In the face of travel time, effort, and cost, rural community colleges need to provide on-campus housing options to serve their students well. Figure 7, below, shows the importance rural community colleges place on housing as a tool to lower transportation access barriers for the rural populations they serve.

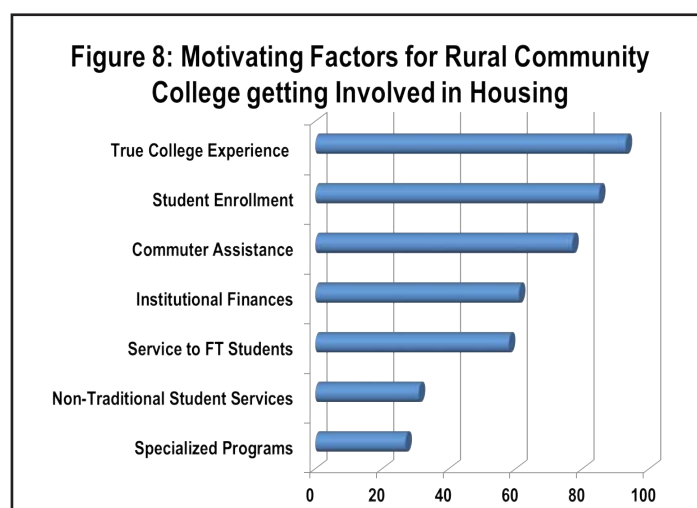


A second reason why a larger proportion of rural community colleges would provide on-campus housing options also dates to the 1947 Truman Commission. Just as most pre-1950 junior colleges had on-campus physical education facilities, most pre-1960s junior or community colleges had on campus housing. In his 2014 study, Hofman found a strong link to the founding year of a community college, and on-campus housing. Among the 289 community colleges with on-campus housing, 260 (90%) were founded or tied to institutions founded prior to 1970.¹⁹

Benefits of Housing

The availability of on-campus housing offers a variety of benefits to both community colleges and their students. Hofman found that most institutions listed several motivating factors when considering the positive impact that providing on-campus housing can have for an institution. Figure 8 shows that providing a “true college experience,” bolstering “student enrollment,” “commuter assistance,” “institutional finances,” and to better provide

“service to full-time students” all are highly rated,” with services to non-traditional students and specialized programs rated by many as well. One of the most helpful benefits for community colleges in today’s economy is the financial impact that results from on-campus housing. Figure 9 below illustrates Hofman’s findings that 90% of all survey respondents listed on-campus housing as a moderate to very important factor for increasing full-time student enrollment. Hofman’s study reinforces Moeck’s finding in 2005 that providing on-campus housing increases full-time student enrollment, which in turn increases the amount of tuition and fees paid to the institution, and by doing so, presumably lowers time-to-degree and over time, provides cost savings for both students and taxpayers alike.



Beyond the benefit of additional funds generated by the tuition and fees from increased full-time student enrollment, housing programs themselves create a positive revenue stream. Of the 142 institutions responding to Hofman’s survey, 82% own or operate their housing facilities, and among rural community colleges that percentage rises to 90%. The vast majority of community colleges with housing are self-financing auxiliary services, with income from housing covering 100% of operating costs, if not showing a modest profit. In fact, among respondents to Hofman’s survey, 81% rate income from housing as a moderate to very important source of income. While Figure 10 shows a more detailed breakdown across rural community colleges, when limiting the responses to only rural institutions the percentage rises to 84%. Given the overall smaller economy of scale, the impact of housing funds represents a very important revenue source indeed.²⁰

Figure 9: Importance of Housing to Increasing Full-Time Enrollment at Rural Community Colleges

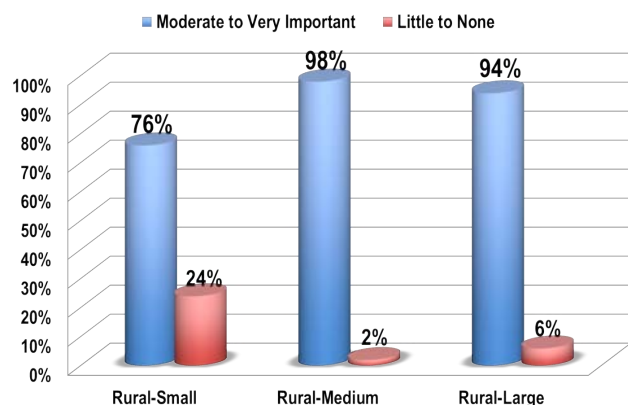
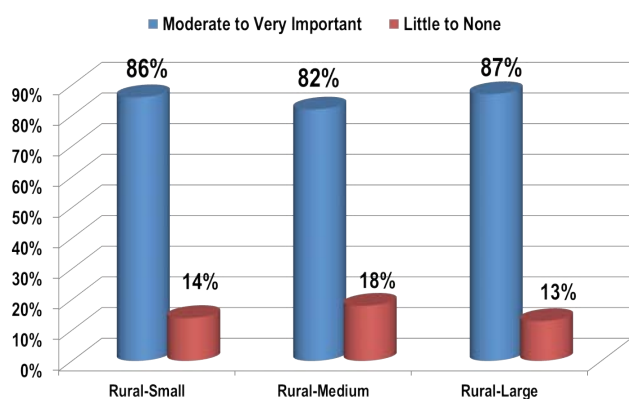


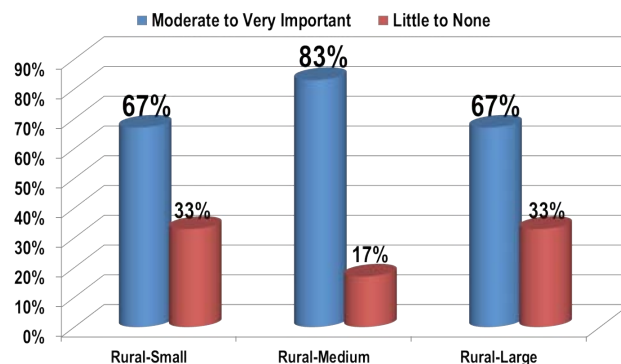
Figure 10: Importance of Impact from Housing Revenue



The additional source of revenue that housing provides allows community colleges to better serve their surrounding population. Hofman's census found 86% of all rural community colleges indicating housing revenue was of moderate to a very important aspect of their institution's ability to reduce barriers to college attendance, particularly for full-time students and students enrolled in specialized programs. One way rural community colleges reduce attendance barriers is by using the revenue from housing to fund programs and services for their off-campus full- and part-time students that would be unaffordable otherwise. Programs such as on campus child care, counseling, health services, and food service are just a few examples of the types of programs that housing revenue can be used to fund. As Figure 11 shows, revenue from housing was a moderately important to very important revenue stream; bringing better economies of scale for all types of rural community colleges can offer a broader array of programs and services to their students. As Moeck found a decade

before, without on campus housing, the colleges would be less capable of affording these programs.²¹

Figure 11: Importance of Housing Revenue in Funding Programs/Services that would otherwise be Unaffordable for Rural Community Colleges



Rising student demand and a positive impact on unrestricted revenues at a time of declining state investment together may explain why half of the rural-serving colleges surveyed by Moeck in 2005 indicated they were considering new housing construction. Robert Pura, President of Greenfield Community College, when asked by the *Boston Globe* why his college was building housing, said "We have many students who would love to have affordable housing but don't have it, and as a result, work way too many hours and can't attend to their studies."²²

The important take away from Hofman's recent census is that while not all community colleges offer on-campus housing, most that do are rural-based and their on-campus housing represents a crucial component in their mission to serve their rural regions. Across the board, respondents to Hofman's survey from rural community colleges hosting on-campus housing indicate that housing was a significant benefit to the institution. In light of the extremely difficult financial situation that most state community college leaders believe their rural community colleges face (see Figures 1 and 2 above) and the few funding options available to rural community colleges that can actually create larger enrollments that result from achieving better economies of scale, the positive cash flow from on-campus housing operations is significant. The additional revenue generated from the increased enrollment and revenues from on-campus housing program allows institutions to leverage other funding streams (including student aid via Pell Grants), to reduce barriers to accessing postsecondary education and to bolster student success, while lowering time-to-degree.

Part Three: Innovative Rural Community College Partnerships to Leverage Diverse Federal Funding Streams

A 2009 White House memorandum entitled “Developing Effective Place-Based Policies for the FY2011 Budget,” called on all federal cabinet departments and executive agencies to better leverage various federal funding streams to promote geographically place-based economic and community development in the request preparation phase of the FY2011 federal budget:

“The Nation’s rural communities will require a different place-policy approach. Nearly 64 percent of the counties across the country are rural. These communities will continue to be integral to the Nation’s food security while also serving as an engine of renewable energy production...Already, rural and Indian Country communities have to overcome issues that are taken for granted in urban areas (clean drinking water, affordable and flexible transportation choices, widely available broadband, and education infrastructure are examples). Addressing these shortcomings while planning smartly for sustainable progress is a key balance for sustainable place-policy.”²³

A similar White House memorandum was issued in August 2010.

Much progress has been made in recent years in college affordability for needy students with increases in Pell Grant funding. Additionally, unprecedented national visibility has been brought to community colleges through the various White House summits on community colleges and college access. To this point, these efforts have not been followed up by sector leadership for rural community colleges within the U.S. Department of Education. While more than a third of all U.S. community college enrollments are found at the nation’s 600 rural community colleges that comprise 6 of every 10 institutions, not one of the 13 commissioned papers for the 2010 White House Conference on Community Colleges addressed the rural context. The papers covered topics that included industry partnerships, apprenticeships, student support services, student persistence and attainment, boosting college completion, the state role, student earnings, developmental

education, financial aid, partnerships with high schools, transfers, services to veterans, educational technology, and data collection, but not rural. The word “rural” itself was only mentioned one time in the 92 pages of text across 13 papers.²⁴ While the focus on community colleges is commendable, there appears to be a lack of focus on rural community colleges in the efforts of major philanthropic groups and federal research grants for education.²⁵ According to the U.S. Department of Education’s Institute for Education Sciences Biennial Report to Congress, in 2011-2012 131 grants were funded through the National Center for Education Research (NCER) and the National Center of Special Education Research (NCSER) totaling \$222 million,²⁶ not one of which was specifically devoted to rural community colleges, despite the fact that these institutions, according to Education Policy Center analysis of IPEDS data, served more than 3.8 million or a third of the nearly 12 million U.S. community college students nationwide in 2010-2011.²⁷

One potential reason for the lack of focus on rural colleges is the continued usage by the U.S. Department of Education and others of the “urbanicity” definition for community colleges, which tends to make rural community colleges invisible,²⁸ and for this reason, we propose using the Carnegie Foundation for the Advancement of Teaching’s geographically-based 2010 Basic Classification of Associate’s Colleges, which are included in all published federal data sets. Perhaps the U.S. Department of Agriculture, given its long tradition of responsibility for development in rural America, can do better. With the formal mention of rural community colleges for the first time in Section 6018 of the Agricultural Act of 2014,²⁹ the vision the Rural Community College Alliance has long proposed³⁰--that the U.S. Department of Agriculture seize the opportunity to lead the various federal departments and executive agencies to better leverage federal funding streams to enhance regional rural development--can be realized, exactly along the lines suggested by the 2009 White House Memorandum.³¹

Attention is now turned to two lighthouse examples already in place to leverage federal funds to accomplish regional development and strengthen rural economies.

Expanding the Base of Engineering Technology in Minnesota’s Iron Region

Itasca Community College (ICC) in northern Minnesota has leveraged federal funding resources along with area funding to create an innovative learning model that expands the pipeline of professional engineering students

through a continuum-based developmental process. The four key aspects of ICC's Engineering Learning Model are: (1) strong K-12 relationships, (2) a two-year Engineering "across the curriculum" development course sequence, (3) an active student and faculty learning community, and (4) creating flexible academic pathways for different student development and learning opportunities. The model continually reinforces students in developing the identity and commitment of a professional engineer through (1) building and maintaining student aspiration for becoming an Engineer, (2) student development as an Engineering professional, (3) student professional practicing of Engineering, and (4) learning to work and function in an organization.

Success of this model can be shown in many ways. First, it has created a diverse body of learners at a rural community college pre-Engineering program who completed their Engineering bachelor's degrees in an average of 8.8 semesters. Graduation rates are 49% for all students who start the program, and 67% for students who start with or achieve "Calculus 1" mathematics ability during their college education (getting students to understand why mathematics skills are vital to their future is why ICC continues its close collaborations with K-12 schools). About 40% of ICC's Engineering students receive about \$347,000 each year in federal Pell Grant aid, compared to about 50% of ICC's overall student population. Approximately 75 % of ICC's Engineering students receive some federal or state financial aid, compared with 85% of ICC's overall student population. About 50 ICC students each year graduate from its Engineering Technology program. Many return to the Iron Range for employment once they complete their four year degree. The program builds a base of well trained workers that in turn helps bring and retain high wage businesses to the region.

The demonstrated success of ICC's two-year Engineering Technology curriculum has encouraged additional partnerships to enhancing regional rural development in northeastern Minnesota. Iron Range Engineering (IRE) is a distinctive, undergraduate project-based collaborative learning Engineering program between ICC, Minnesota State University-Mankato (MSU), and Iron Range industries. Entering students are community college graduates who have completed lower division requirements for the Engineering bachelor's degree and IRE delivers the four-semester upper-division portion of a student's education working in teams at ICC. Students solve complex industry-related projects and problems associated with the region's mining, milling, and manufacturing industries. At the completion of their two-year IRE program, students earn

a B.S. in Engineering from MSU with an emphasis on Mechanical or Electrical Engineering, consistent with ABET student outcomes and attributes and integrated competencies and technical professional knowledge of the "The Engineer of 2020." The IRE model addresses the need for 21st Century Engineering education by considering the entire education system and includes trans-disciplinary thinking, industry-sponsored project-based-learning, experiential learning in context, competency-based assessments, and significant exposure to professionalism, design, creativity, and innovation. Students divide their time every week between learning by doing the design, and learning through methods that include self-learning, peer-learning, and learning from faculty and other external experts.

IRE projects are industry sponsored, taking advantage of the close proximity of ICC to the heart of Minnesota's Iron Range--within short driving distance are six iron mines, two coal generation power plants, a wind-turbine farm, two paper mills, and a new precious metals mine. A new steel mill has been proposed. Engineers and plant managers in these industries have embraced ICC and IRE, and have committed staff time to providing projects, project guidance, and technical expertise for student learning, as well as under-writing internships/co-ops, and providing ICC instructors assistance in assessment. During the proposal stage, students in collaboration with faculty and clients develop two plans: a design "work plan" detailing the entire execution of the deliverable to the client; and a "learning plan" addressing professional learning objectives, technical learning objectives, and the learning modes to be employed to meet the objectives, as well as methods for formative and summative assessment and reflection. When a student is confident in their knowledge, they present evidence to the faculty. Faculty then vet the evidence and review student competency through oral exams.

As students work on their projects they learn the fundamentals of project management as well as product development. After 4 semesters and 4 projects, the students jump into a project management situation presented by an employer, and are ready to attempt work on a project of their own. In 2011-12, the first 21 students graduated, of whom 16 (76%) are employed regionally; 4 are employed outside the region, and one is at the University of Notre Dame for graduate studies in biomedical engineering. An additional 20 students graduated in 2012-13. The entire program is ABET accredited.³²

The Engineering Technology program at ICC, its partnership with Minnesota State University-Mankato, and area industries through IRE provide an outstanding example as to how on-campus housing and creative lever-

aging of federal, state, and private sector funds have expanded ICC's capacity to provide a locally-based high skill rural workforce who will command high-wage jobs. The three story building was financed with \$4.1 million dollars through the State of Minnesota's bonding process and a \$1 million dollar gift from the Blandin Foundation. Since construction, an additional \$4 million dollars (Blandin Foundation and National Science Foundation funds) in grants have been obtained to support outreach work with K-12 schools and student success. A total of 112 students live in on campus housing at ICC. With the success of the ICC Engineering Learning Community, all of the 36 residential beds on the third floor of ICC's Engineering Technology Building are consistently subscribed by students. A second residential hall hosting 76 additional students was opened in 2005. Today, Engineering Technology comprises 21% of ICC's total enrollment compared to 8% prior to the establishment of the engineering building. It is beyond question that the creative leveraging of federal, state, and private sector resources is the critical success factor in serving to create a 21st century workforce in rural northeastern Minnesota.

“Offering on-campus housing has been a critically important factor in the success of our program. Without it, we could not have attracted students from the farther reaches of our primary service area. This on-campus housing is one of the key reasons why we have been able to expand out learning community and move forward with the upper division baccalaureate degree. It's been absolutely vital to our success.”

-Dr. Barbara J. McDonald, Provost of Itasca Community College

A Statewide Network for Child Care Professional Development Involving 15 Community Colleges and a Land-Grant University

The State of Mississippi hosts an innovative example of collaboration to leverage scarce federal agency dollars through a partnership involving its land grant university and 15 rural community colleges. To provide a hand up, not a hand out to place-bound rural communities, Mississippi State University's (MSU) Extension Service created the Mississippi Child Care Resource and Referral Network.



MSU Professor Dr. Louise Davis saw the potential to expand early childhood professional development programs and services to a statewide level, working through the MSU Extension Service and deploying its comprehensive statewide network in partnership with the 15 community colleges. The MCCR&R Network began in 1999, and continues to be critical for the future workforce development of early child care and education communities statewide. With Mississippi's community colleges located within reach of all of the state's citizens, and already offering two-year child development degrees, MSU Extension Service provided a perfect fit for this vision. This partnership is the only one of its kind between a university-based Extension Service, a statewide Network of child care educators, and a state community college system anywhere in the nation. The MSCCR&R Network's unique combination of partnership projects include the Nurturing Homes Initiative, Leadership Development, Project Navigator, Allies, Out-of-School and a network of Mississippi Child Care Resource and Referral sites located throughout the state. This partnership leverages education sectors vertically (K-12, community colleges, and flagship universities), and federal funding streams horizontally (USDA, USDHHS, Appalachian Region Commission, as well as private funding from the W.K. Kellogg and Phil Hardin Foundations), to create and sustain a unique, one-stop approach that delivers professional development and early childhood program quality enhancement.

Recommendations Moving Forward to Leverage Federal Funding Streams to Build Rural Economies: Operationalizing Section 6013 of the Agricultural Act of 2014

There is great reason to be optimistic as the U.S. Department of Agriculture (USDA) works with America's 600 rural community and tribal colleges to bolster access and regional rural economic and community development. The Agricultural Act of 2014 provides an unprecedented opportunity for USDA to partner with the Rural Community College Alliance (RCCA) and its research partners at

The University of Alabama, Mississippi State University, Iowa State University, and others with a deep interest in this subject, to accomplish the following:

1. *Housing and USDA/RD Community Facilities.* Thanks to the work of Ryan Hofman at The University of Alabama, an accurate census of the rural community colleges with on campus housing exists. USDA can assume the traditional federal role and host a webinar to encourage more rural community colleges to build joint-use teaching and residential buildings similar to Itasca Community College's Engineering Technology Building across rural America. Partnerships with RCCA and USDA/RD/CF is an excellent initial step for USDA/RD to learn more about how to effectively reach this sector; that state-level community college leaders did not rate CF or StrikeForce high as important programs for their state's community colleges is an indication that USDA needs internal education about rural community colleges.

2. *Rural Community College Task Force.* USDA should create a 15 member Rural Community College Task Force to operationalize the Agricultural Act of 2014. This Task Force should be a current or past Board Chair of the Rural Community College Alliance. A third of the members should be rural business leaders. A final third of the members should be professors of community college education with extensive experience with rural community colleges.

3. *National Research on Rural Community Colleges.* USDA should fund national research on community colleges.

It should formally engage leading community college educators with deep knowledge of rural issues and fund them to (a) identify additional lighthouse programs, and (b) host focus groups of mid-level staff within USDA/RD programs and community college leaders, to learn more about one another, so that (c) issue briefs for distribution within USDA/RD can be created, so that USDA's human resources can look beyond the land-grant network as they consider advancing rural regional development.

4. *Congressional hearings on rural community colleges.* It is time for Congress, working in a bipartisan manner through its Rural Caucus, to host the first-ever congressional hearings on rural community colleges and their role in rural uplift. This can be done as part of its oversight function, to ensure that the vision behind Section 6018 of integrating rural community colleges into rural development efforts from the USDA are fully implemented.

With the passage of Section 6018 in the Agricultural Act of 2014, the Secretary of Agriculture has a tremendous opportunity to expand the vision of the U.S. Department of Agriculture to make a difference in rural America. The Rural Community College Alliance and its research partners at The University of Alabama, the Stennis Institute of Government at Mississippi State University, Iowa State University, and at other universities stand ready to assist. ■

References

1. Lucas, Frank (Chairman). (2014, January 27). Agricultural Act of 2014. United States House of Representatives, Committee on Agriculture. Conference Report to Accompany H.R. 2642. Retrieved February 7, 2014 at <http://agriculture.house.gov/sites/repulicans.agriculture.house.gov/files/pdf/legislation/AgriculturalAct2014.pdf>
2. U.S. Department of Agriculture (2013, September 30). Geography of poverty. Economic Research Service. Retrieved February 5, 2014 at <http://www.dailyyonder.com/persistent-poverty-counties/2013/08/01/6674>
3. Palmer, J.C. (Editor). (2008). One-year and two-year percent changes in state tax appropriations for state-aided community colleges. (Table 10). Retrieved April 16, 2008 from www.grapevine.ilstu.edu/tables/pdf/Table6_08.pdf, as cited in Katsinas, S. G., & Friedel, J. N. (2010). Uncertain recovery: Access and funding issues in public higher education. Findings from the 2010 survey of the National Council of State Directors of Community Colleges. Tuscaloosa, AL: The University of Alabama, Education Policy Center. Retrieved on February 6, 2014 from <http://education.ua.edu/edpolicycenter/documents/StateDirectorsSurvey2010.pdf>, p. 42.
4. Zook, G. F. Chairman. (1947, December 11). Establishing the goals (Vol. 1 of 6). Report of the President's Commission on Higher Education, Higher Education for American Democracy. Washington, DC: Government Printing Office.
5. Katsinas, S.G., and Hardy, D. E. (2012). Community colleges, promoting access, and building sustainable regional rural innovation. In Smart, J. C. (ed). Higher Education: Handbook of Theory and Research, 27. New York: Agathon Press. 109 pages.
6. Roessler, B. C., Katsinas, S. G., & Hardy, D. E. (2006). The downward spiral of state funding for community colleges, and its impact on rural community colleges. Starkville, MS: MidSouth Partnership for Rural Community Colleges and the Rural Community College Alliance, 8 pages.
7. IBID, Katsinas and Friedel, 2010.
8. Postsecondary Education Opportunity Newsletter, (2013, February). State disinvestment in higher education, FY1961 to FY2013. No. 248. Washington, DC: The Pell Institute for the Study of Opportunity in Higher Education.
9. Education Policy Center, The University of Alabama (2014, forthcoming). Table of states providing less than five percent of total revenues through state appropriations in FY2011-2012. Unpublished tabulation.
10. Zumeta, W. Brenaman, D. W., Callan, P. M., and Finney, J. E. (2012). Financing American higher education in an era of globalization. Cambridge, MA: Harvard University Press, 272 pages. See also Lingenfelter, P.E. (2013). State Higher Education Finance, FY2012. Denver: State Higher Education Executive Officers. Retrieved February 5, 2014 at <http://www.shceo.org/sites/default/files/publications/SHEF%20FY%2012-20130322rev.pdf>
11. U.S. Department of Agriculture. (2014). StrikeForce for Rural Growth and Opportunity website. Retrieved on February 6, 2014 at http://www.usda.gov/wps/portal/usda/usdahome?navid=STRIKE_FORCE

12. U.S. Department of Agriculture. (2014). StrikeForce for Rural Growth and Opportunity. Fact Sheet. Retrieved February 6, 2014 at <http://www.usda.gov/documents/usda-strikeforce-fact-sheet.pdf>
13. Moeck, P. G. (2005). Residence halls at community colleges in the United States: A quantitative and descriptive analysis. Ph.D. dissertation, University of North Texas.
14. Moeck, P. G., Katsinas, S. G., Hardy, D. E., & Bush, V. B. (2008). The availability, prospects & fiscal potential of on-campus housing at rural community colleges. *Community College Review*, 35(3), 237-249; see also Moeck, P. G., Katsinas, S. G., Hardy, D. E. & Leech, J. M. (2007). On-campus housing at rural community colleges. *Community College Journal of Research and Practice* 31(4) 327-337; see also Moeck, P. G., Hardy, D. E. & Katsinas, S. G. (2007). Residential living at rural community colleges. *New Directions for Community Colleges monograph series* (137), pp. 57-64, San Francisco, CA: Jossey-Bass;
15. Moeck, P. G., Katsinas, S. G., & Hardy, D. E. (2006). On-campus housing: A boon to rural community colleges. The benefits of community college involvement in on-campus housing. University of Alabama Education Policy Center for the MidSouth Partnership for Rural Community Colleges. Mississippi State, MS: MidSouth Partnership for Rural Community Colleges.
16. Hofman, R. P. (2014, forthcoming). A census of housing at U.S. community colleges. Ph.D. dissertation. Tuscaloosa, AL: The University of Alabama. 211 pp.
17. IBID, Zook, 1947.
18. Katsinas, S. G., Alexander, K. F., & Opp, R. D. (2003). Preserving access with excellence: Financing for rural community colleges. *Rural Community College Initiative Policy Brief*. Chapel Hill, NC: MDC, Inc.
19. IBID, Hofman 2014, p. 123.
20. IBID, Hofman, 2014.
21. IBID, Hofman, 2014.
22. Schwietzer, S. (2006, February 19). "Community colleges seek to build dorms Reflects changing student profile at 3 state schools," *Boston Globe*.
23. Orszag, P. R., Barnes, M., Carrion, A., & Summers, L. (2009, August 11). Developing effective place-based policies for the FY2011 budget. Memorandum for the heads of executive departments and agencies. M-09-28. Washington, DC: The White House, p. 1. Retrieved from http://www.whitehouse.gov/sites/default/files/omb/assets/memoranda_fy2009/m09-28.pdf
24. Biden J. (Ed.). (2010, October 5). Washington, DC: The White House Summit on Community Colleges.
25. Katsinas and Hardy, 2012. The last major private foundation to work with the nation's 600 rural community and tribal colleges in a program to promote access and economic development was the Ford Foundation's Rural Community College Initiative, which ended in 2002.
26. U.S. Department of Education's Institute for Education Sciences, Institute of Education Sciences. (2013). Institute of education sciences director's biennial report to congress fiscal years 2011 and 2012. Retrieved from U.S. Department of Education website: <http://ies.ed.gov/pdf/2014001.pdf>
27. Education Policy Center (2014, forthcoming). Analysis of enrollments and degrees awarded at community colleges in the United States, 1990-1991 to 2010-2011 by Carnegie Type of Associate's College. Tuscaloosa, AL: Education Policy Center, The University of Alabama.
28. IBID, Katsinas and Hardy, 2012.
29. Agricultural Act of 2014 (January 27). Retrieved from <http://agriculture.house.gov/sites/republicans.agriculture.house.gov/files/pdf/legislation/AgriculturalAct2014.pdf> p.520 and 521
30. Rural Community College Alliance (2013, June). Definitions matter. Retrieved February 4, 2014 at <http://www.ruralccalliance.org/rural-america.html>
31. IBID, Orszag, Barnes, Carrion, & Summers, L., 2009, August 11.
32. Iron Range Engineering (2013). Retrieved February 5, 2014 at <http://www.ire.mnscu.edu/>

ABOUT THE EDUCATION POLICY CENTER

The College of Education's Education Policy Center seeks to inform and improve education policy-making and practice, and our understanding of the roles education plays in a free and equitable society, through a coordinated program of research, topical and historical analyses of education-related issues, and services for education practitioners and policy-makers in Alabama and the nation.

On-Going Center Projects Include:

Annual Surveys of the National Council of State Directors of Community Colleges on finance and access issues: see www.uaedpolicy.ua.edu/access--funding-surveys.html.

Rural community colleges: The Center hosts the Rural Community College Alliance's webpage, as it fulfills its role as RCCA's research arm.

History of education research: More Than Science or Sputnik, the National Defense Education Act, by Center Associate Director Wayne J. Urban, was published in 2010. Urban is now completing a biography on former Harvard University President James Bryant Conant.

Student access research: Since 2010, the Center has published 19 studies on Pell Grants.

The University of Alabama Superintendent's Academy, a partnership with the Alabama State Department of Education, broadens the pool of diverse, well-prepared district leaders.

Public access colleges research: The Center's work on Associate's Colleges classifications is included in the 2005 and 2010 Basic Classification published by the Carnegie Foundation for the Advancement of Teaching, included in all federal education data sets.

Director: Stephen G. Katsinas, Ph.D.

Associate Director: Wayne J. Urban, Ph.D.

Director, The University of Alabama Superintendent's Academy: Richard L. Rice, Jr., Ph.D., J.D., C.P.A.

Research Associates: Jonathan Koh, Louis Shedd, Michael Malley, Lucas Adair, Nelson Tidwell, Undre Phillips, Aubrey Stewart, and Amanda Harbison.

Senior Fellows: Mary Allen Jolley, Vincent A. Lacey, John Petrovic, R. Frank Mensel, Pat Moeck, David S. Murphy, Robert Pedersen, James "Skip" Dotherow, Mark M. D'Amico, Janice N. Friedel, James E. Davis, Arthur Dunning, and Linda Serra Hagedorn.

Research Fellows: John Petrovic, Delphine Harris, Michael A. Kennamer, John Clinton Kinkead, Kristie R Rankin, Melissa P. Tarrant, Anne Williamson, and Brian Johnson.