

The McIntire-Stennis Cooperative Forestry Research Program

– a driving force behind progress in developing and utilizing the Nation’s forests –

By

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ABSTRACT: The McIntire-Stennis Cooperative Forestry Research Program has provided fundamental support for creating and strengthening forestry research and graduate training efforts at colleges and universities across the Nation for nearly five decades. McIntire-Stennis (M-S) Program funding has helped produce thousands of forestry scientists and other research professionals, and M-S supported research has provided critical basic understanding and applied solutions to extend the benefits that flow from forests and related rangelands across the country over time. The formula-based M-S Program provides funds that are critical to state-supported colleges and universities; the funding support is a steady source of base funds that are highly leveraged within each state receiving M-S support. The 1962 legislation that created the McIntire-Stennis Program authorized funding of up to one-half of the funds appropriated for Federal forestry research conducted directly by the U S Department of Agriculture. Throughout the Program’s history, however, actual appropriations for M-S research have been far below the authorized level. There is an upcoming opportunity to significantly increase the level of funding for this critical program – the M-S Program will celebrate its 50th anniversary in 2012. Congress and the President therefore have a truly significant, “golden anniversary” opportunity to strengthen the Nation’s investment in research and training that represents an essential and powerful “*driving force behind progress*” in sustaining forests and related resources for ecological, economic and social benefits for present and future generations.

History and General Intent of the Legislation

On October 10, 1962, President John F Kennedy signed legislation that became Public Law 87-788, an Act “*To authorize the Secretary of Agriculture to encourage and assist the several states in carrying on a program of forestry research and for other purposes*” (see Figure 1). In signing the Act into law, President Kennedy was following through on statements he had made in speeches in 1961 – Kennedy had specifically stated the need to “*Expand forestry research, too long neglected*” (Thompson and Bullard 2004). PL

87-788 was later named the “McIntire-Stennis Cooperative Forestry Research Program” after the bill’s two primary, bipartisan sponsors in Congress, Representative Clifford G McIntire of Maine and Senator John C. Stennis of Mississippi.

As shown in Figure 1, the basic purpose or intent of the McIntire-Stennis (M-S) Cooperative Forestry Research Program was to provide Federal funding for forestry research at state-supported colleges and universities; by providing this funding, it would be “*recognized that research in forestry is the driving force behind progress in developing and utiliz-*

ing the Nation’s forests and related rangelands.”

The Act also recognized that forestry research would be more effective nationwide if efforts among state colleges and universities and the Federal government were more closely coordinated. The Act clearly made individual states and the Federal government strong partners in forestry research to develop, utilize, and sustain the Nation’s forests.

Finally, a very important purpose of the M-S legislation was to address the Nation’s need for forestry scientists and other research profession-

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President John F. Kennedy (r) with Democratic Senator John C. Stennis (l) in February 1961. During his election campaign, President Kennedy pledged to support forestry and forestry research [Photo courtesy of the Congressional and Political Research Center, Mississippi State University Libraries]



Representative Clifford G. McIntire was a Republican Congressman from Maine from 1951 to 1964. He helped draft legislation later approved by the 87th Congress and submitted for Presidential signature as H.R. 12688. Rep. McIntire considered the M-S legislation the highlight of his political career. [Photo courtesy of the Forest History Society, Durham, NC]

als ... "it is further recognized that forestry schools are especially vital in the training of research workers in forestry." In speeches and remarks years after the M-S Program was implemented nationwide, Senator Stennis specifically mentioned their original intent relating to creating and strengthening graduate programs in forestry (Thompson and Bullard 2004)

Reporting on successful passage of the M-S Program, Westveld (1963) stated that it was the "hope of those who sponsored the legislation that the Act will do for research and graduate education in forestry what the Hatch Act has done for agriculture." Westveld (1963) also noted that prior to the M-S Program there was a growing national concern over the shortage of trained forestry scientists; he reported that only 74 percent of total spending

for forestry research in the U.S. in fiscal year (FY) 1959-60 was performed at universities. Nationwide, forestry research was expanding within Federal agencies, requiring increasing numbers of highly skilled scientists, but adequate funds were not being dedicated to forest-based projects through the Hatch Act or other Federal or state sources

Specific Provisions and Current Implementation

Key provisions of the M-S Cooperative Forestry Research Program are presented in Figure 1. Highlights of the original legislation and the current M-S Program include:

- Funding for the M-S Program is authorized up to "one-half the amount appropriated for Federal

forestry research conducted directly by the Department of Agriculture" during the previous fiscal year. Actual appropriations for the Program began at \$1 million in 1964, and in FY 2010 the Program is funded at \$29 million. M-S appropriations have always been far below authorized levels, as summarized in the section "Funding Processes and Funding History"

- After the Federal budget process determines the national M-S appropriation each year, state-level funding is determined by a formula with three-variables: (1) area of private forest land from the latest USDA Forest Service Forest Inventory and Analysis (FIA) data (weighting = 40%); (2) volume of timber removed from growing stock based on the latest FIA data (weighting = 40%); and (3)

level of non-Federal funds, including industry support, based on reports in USDA's Current Research Information System (weighting = 20%).

- Institutions eligible for M-S Program funding include land-grant colleges or experiment stations established under the Morrill Act (1862) and the Hatch Act (1887), as well as “*other state-supported colleges and universities offering graduate training in the sciences basic to forestry and having a forestry school*” A “forestry school” has been defined as an academic program offering a state-approved curriculum leading at minimum to a Master of Science in Forestry or a Master of Forestry (USDA CSREES 2000). In the Food, Conservation, and Energy Act of 2008, eligibility was extended to 1890 land-grant institutions even if they did not offer graduate level training in forestry. While eligible for the Program, whether or not they will be participants is still determined by the states
- Within each state, a Governor's designee certifies which institutions are eligible for M-S funding. If more than one institution is certified, the Governor's designee determines the percentage of funds or “*proportionate amounts of assistance*” to be received by each of the certified institutions in the State each year. FY 2010 percentages are presented in Figure 2 for each state with more than one certified institution.
- “Forestry research” is very broadly defined in the M-S legislation. The definition specifi-

cally mentions reforestation, watersheds, forage for game and livestock, wildlife habitat, outdoor recreation, forest health and protection, wood utilization, and forest policy; the definition also includes “*such other studies as may be necessary to obtain the fullest and most effective use of forest resources*” (Figure 1)

- The USDA National Institute of Food and Agriculture (NIFA), formerly the Cooperative State Research, Education, and Extension Service (CSREES), provides fiscal and administrative oversight of the M-S program. This oversight includes applying the funding formula, disbursing funds, reviewing proposed research projects, and reporting to Congress on M-S Program impacts and accomplishments (USDA CSREES 2000). Another important administrative role of NIFA is to help ensure that research projects are not duplicated at various institutions across the states and territories receiving M-S funding each year (Brinker 2007). Institutions within states must develop complementary programs of forestry research for the state.

M-S Program Results and Impacts

One of the most important aspects or results of the McIntire-Stennis Program is the fact that state-supported colleges and universities across the Nation are provided steady, base funds for forestry-related research and graduate training. Without M-S funds, many of these institutions would not have forestry research and graduate training pro-

grams today. With M-S funds, however, the programs have an annual funding base that at most institutions is highly leveraged with funds from many sources

Prior to passage of the M-S legislation, forestry research was an extremely small part of agriculture-related research programs at state-supported institutions in the U.S. In 1952, for example, agricultural experiment stations at U.S. universities received over \$12.8 million, but only \$137 thousand, or just over one percent, was devoted to forestry research (Kaufert and Cummings 1955). At four Society of American Foresters-accredited forestry schools, the forestry research budget in 1951 was less than 0.5 percent of the agricultural experiment station budget (Westveld 1954)

Since 1962, however, the McIntire-Stennis Cooperative Forestry Research Program has supported thousands of forestry research projects, and the Program has helped produce thousands of trained scientists and other forestry research professionals. The total impact of these projects and trained graduates is immeasurable, because of the diversity and scale of projects over time, because many project-level benefits are diffuse and difficult to quantify, and because M-S funds are often base funds, i.e., they may be used for salary or other support that enables projects to be accomplished, but the funds are commingled with state funds, grant funds and financial support from many sources

USDA CSREES/NIFA does, however, report significant accomplishments and impacts of the M-S Program. The most recent report (USDA CSREES 2007) includes

one-page impact statements presented by state/territory and university. The report includes summaries of a vast and diverse array of M-S projects and impacts, including:

- In Arizona, management recommendations have been developed to reduce the impacts of human activities on ecologically important areas that receive more than 4.1 million visitors each year and cover an area of over 1.1 million acres across the southwest.
- In Hawaii, research has developed termite prevention and control approaches that have been widely adopted; cost savings for the state's residents are estimated at over \$30 million per year.
- Peregrine falcons have been successfully re-established in cliff habitats in Kentucky, the first successful nesting pairs since 1939.
- Glue laminated beams can now be reinforced using lower-grade wood from smaller trees, providing improved forest management opportunities and saving \$60 million per year in raw material costs.
- Invasive plants, insects, and pathogens are being reduced in Washington state through more careful practices for horticultural plant introductions.
- In the Mississippi Delta region, over 300,000 acres of bottomland hardwoods have been restored using guidelines developed through M-S research.

These are only a few examples

of the hundreds of forestry research projects supported by M-S funds in recent years. In FY 2010 alone, for example, M-S funding is supporting 670 research projects at 77 universities in 54 states and territories. The M-S Program supports a vast array of projects that are geographically diverse and broad in scope, since the Program allows and encourages research that addresses critical issues at state and regional levels.

While the total impact of all current and past M-S supported projects is immeasurable, the level of graduate student support can be reliably estimated using USDA CSREES/NIFA data. Since initial funding in 1964, the M-S Program has provided over 24 thousand years of graduate student support – producing 8,110 master's degrees and 2,438 doctoral degrees – an estimated 37% of all graduate degrees in forestry in the U.S.

Another important result of the M-S Program is the extent to which Federal funds are leveraged with non-Federal funding sources within states and within individual colleges and universities. The Program requires that Federal funds be matched at least one-to-one with funds from non-Federal sources. In a 2002 survey of institutions receiving M-S funds, half of the 40 respondents reported that Federal M-S funds were less than 10 percent of their total research budget; another 9 reported that M-S funds were less than 20 percent of their budget (Thompson and Bullard 2003). The degree of leveraging of M-S funds is a highly successful result of the M-S program, since base support has been critical to the very existence of forestry research capacity at many state-supported colleges and universities across the U.S.

Finally, the M-S Program is implemented in different ways at colleges and universities across the Nation. The result has been an array of Program management practices and models from which other states and universities may learn. For example: the University of Montana uses a competitive program to award M-S funds to potential projects; the University of Maine uses M-S funds for faculty salary support; and Oregon State University uses M-S funds as base support for its Forest Research Lab. The flexibility of program implementation at the university level has resulted in customization that best fits nuances and needs at the local level.

Funding Processes and Funding History

The McIntire-Stennis Program is an example of a Federal "formula" funding program. Other Federal formula fund examples include: Hatch Act funds for State Agricultural Experiment Stations associated with 1862 land-grant institutions; Evans-Allen Program funds supporting 1890 land-grant institutions; and Smith-Lever Act and Renewable Resources Extension Act funds, both for cooperative extension activities (Schimmelpfennig and Heisey 2009).

Each fiscal year, the federal budget process determines the total appropriation for McIntire-Stennis and other programs, and as outlined earlier, a formula is then used within NIFA to allocate the M-S appropriation among the states and territories. Table 1 shows the values used for each of the three variables in FY 2010, and the 2010 allocation to each state and territory. In states where

more than one M-S Program exists, funds are split based on the recommendation of a governor's designee in each state, as shown in Figure 2.

In recent years, there has been much debate about whether formula-based funding or competitive grant funding is preferable for Federal support of agricultural and forestry research (Ho 2009). Huffman and Evenson (2006), for example, described the following issues regarding formula and competitive grant funding sources for Federally-sponsored agricultural research:

- Formula funds provide steady funding that can be used to support “core, basic, or foundation” research that may take decades to complete.
- Formula funds have very low overhead. These funds bear no general university indirect costs, which means that 97% of Federally appropriated funds are directly applied to research support (3% of funds are used for USDA NIFA’s administrative support)
- Competitive grant funding tends to favor institutions with relatively large research infrastructure
- Competitive grant programs tend to reallocate research resources within land grant universities away from research that may be important in individual states, and toward projects with greater national appeal

In general, formula-based funding has come to be viewed as promoting geographically-specific applied research. Meanwhile, Federal emphasis has increased the priority of more basic research, primar-

ily funded through competitively-awarded grants (Schimmelpfennig and Heisey 2009).

For nearly 50 years, the McIntire-Stennis Program has provided steady, base funding for forestry research and graduate training. As mentioned in the “M-S Program Results and Impacts” section, base M-S funding is highly leveraged at nearly all of the institutions receiving M-S support. Today, M-S funds are a relatively small but critical part of total research funding for most forestry schools and colleges across the Nation.

Historically, M-S appropriations have been far below the authorized level of one-half of the appropriation for forestry research conducted directly within USDA. In fact, as shown in Figure 3, funding for the M-S program has been far below funding for forestry research in just one USDA agency, the Forest Service. Figure 3 also shows significant increases in both Forest Service and Hatch Act funding for research, with generally flat funding for the M-S Program.

Today's Challenges and Priorities

There are many critical challenges confronting society today that involve both the ecology and the economy of forests and their use. To help identify these challenges and provide a national agenda for forestry research and graduate education under the M-S Program, the National Association of University Forest Resources Programs (NAUFRP) prepared and published a Strategic Plan titled *Sustaining Healthy and Productive Forests: An Investment in America's*

Competitive Position in the Global Marketplace (NAUFRP 2007). The NAUFRP Strategic Plan was based on a 2006 conference of 100 scientists and other forestry leaders from academic, agency, nonprofit, and industrial sectors.

The NAUFRP Strategic Plan highlights critical, forest-based challenges that include “*climate change, invasive species, exotic pests, wildfire, forest fragmentation, urban sprawl, and globalization, along with dwindling forest research capacity in our agencies and universities*.” These and other issues were identified as major threats to “*the vitality and resiliency of our forests and our nation's competitive position in the global community.*”

To address major new challenges, NAUFRP (2007) presented a “*bold new agenda*” for McIntire-Stennis research that includes two major components: “*Foundational Areas of Knowledge*” and “*Emerging and Integrative Areas of Knowledge.*”

▪ **Foundational Areas of Knowledge**

The NAUFRP Strategic Plan calls for “*fundamental research on individual species, soils, hydrology, invasive species, pathogens, and wildfire*” – topics that are “*still critical to our understanding of forests, watersheds, and global functions*.” Fundamental research is also recommended in the social, physical, engineering, and material sciences, particularly where new knowledge is “*instrumental in decision making, developing new products, and utilizing natural resources more effectively in environmentally and socially sound ways*.”

▪ Emerging and Integrative Areas of Knowledge

Below we have modified the seven Emerging and Integrative Areas of Knowledge of the M-S Strategic Plan into five categories that reflect current issues in forestry and natural resources ...

A New Science of Integration: This new, important and developing area of science involves whole system analysis – crossing biophysical boundaries, ownerships, and agency jurisdictions. The goal is to develop theories, models, and tools that integrate geophysical, ecological, socio-economic, and cultural dimensions of natural resource issues, management, and policy.

Ecosystem Services: M-S Program research will continue to develop more comprehensive understanding of ecosystem functions, processes, and services. This work includes quantifying and valuing forest benefits such as clean water and air, carbon sequestration, biodiversity, and erosion control, and also helping develop viable markets that reward producers of these benefits.

Climate Change: M-S research will continue to quantify climate change indicators and verify mitigation, management, and adaptation strategies such as carbon cap and trade to reduce greenhouse gas emissions.

Energy Independence: M-S research is critical for developing economically viable and ecologically sustainable ways to use forest products for bio-energy, while also sustaining existing industry sectors

New Technologies and Products: M-S Program research is developing and applying nanotechnology, biotechnology, and spatial

and engineering technologies to create jobs, reduce costs, increase forest productivity and ensure sustainability. The Program is also developing bio-based polymers, alternative fiber products, renewable energy and bioremediation to create jobs and support a sustainable industry (NAUFRP 2009).

NAUFRP has also recognized that implementing a new M-S agenda will require increased collaboration among universities and agencies, as well as “*changes in graduate education and in funding for research infrastructure and equipment*” (NAUFRP 2007).

The 100 participants in the 2006 NAUFRP-led conference concluded that natural resource scientists of the future will need to: understand specializations other than their own; apply analytical thinking and problem solving in a broad context; communicate through a wide range of media and to a variety of audiences; and exhibit strong leadership through ethical practice as well as scientific vision (DeHayes *et al.* 2006).

The need continues to be critical for graduate-level training that is highly focused and specialized. Today and in the future, however, it is also essential that researchers have greater breadth of knowledge, as they help interpret and apply new knowledge, understanding, and technologies to complex, transdisciplinary social and biological issues and problems.

M-S Program Outlook and Opportunities

The McIntire-Stennis Cooperative Forestry Research Program has had, and continues to have, strong positive impacts on economic well-being and quality of life of current and future generations. The Program is a partnership between states and the Federal government – a public investment in sustaining forests and related natural resources for economic, ecological, and social benefits over time.

Public-sector investments in forestry research and graduate training in the U.S. are made for both economic and sociopolitical reasons (Bullard 1986), and in the case of annual investments in the M-S Program, throughout its 48-year history the Program has truly been a “*driving force behind progress*” as noted in its legislation. Research has demonstrated the Program to be effective in achieving its goals and objectives over time (Thompson and Bullard 2004).

An extremely important part of the outlook for the M-S Program is whether or not funding will be enhanced in the future, to be nearer the level authorized in 1962 and to reflect the increased demand for M-S funds with the eligibility authorization for 1890 institutions in 2008. The M-S Program is legislatively authorized for annual funding of \$150 million – a very conservative estimate based on the current level of research funding in the Forest Service and other agencies performing forestry research within USDA. The FY 2010 appropriation for M-S is \$29 million, or only 19% of the authorized level.

A significant factor is whether or

not the upcoming 50th anniversary of the M-S Program will be legislatively recognized with increased funding. Since 1962, the only two significant increases in M-S funding were at the Program's 10th and 25th anniversaries (Thompson and Bullard 2004). Following the 10th anniversary of the Program in 1972, for example, M-S appropriations were increased each year for four years, by a total of 50% by 1976. Following the 25th anniversary in 1987, M-S Program funding was increased by 29% in one year, from less than \$12 million in 1987 to nearly \$17 million in 1988.

The 50th anniversary of the M-S Program in FY 2012 will be a significant, "golden anniversary" opportunity for legislative leadership. Forest-related issues today are increasingly complex, and the need for science-based understanding, viable solutions, and highly-trained research professionals continues to be essential to long-term well being throughout society at local, state, and national levels. To address these needs through a proven, "*driving force behind progress*," NAUFRP's current funding request for the M-S Program includes \$50 million for the 50th anniversary year. FY 2012 represents an outstanding opportunity for new legislative champions to step forward in the active, bipartisan leadership roles that Representative McIntire, Senator Stennis, and President Kennedy provided nearly five decades ago.

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Figure 1. Key provisions of Public Law 87-788 [87th Congress, H.R. 12688], the McIntire-Stennis Cooperative Forestry Research Program.

Purpose: ... *“It is hereby recognized that research in forestry is the driving force behind progress in developing and utilizing the Nation’s forest and related rangelands ... It is recognized that the total forestry research efforts of the several State colleges and universities and of the Federal Government are more fully effective if there is close coordination between such programs, and it is further recognized that forestry schools are especially vital in the training of research workers in forestry.” (Underscore added.)*

Eligibility: Forestry research assistance shall be in accordance with plans between the Secretary of Agriculture and *“(a) land-grant colleges or agricultural experiment stations established under the Morrill Act of July 2, 1862 (12 Stat. 503), as amended, and the Hatch Act of March 2, 1887 (24 Stat. 440), as amended, and (b) other State-supported colleges and universities offering graduate training in the sciences basic to forestry and having a forestry school; however, an appropriate State representative designated by the State’s governor shall in any agreement drawn up with the Secretary of Agriculture for the purposes of this Act, certify those eligible institutions of the State which qualify for assistance and shall determine the proportionate amounts of assistance to be extended these certified institutions.”* The Food, Conservation, and Energy Act of 2008 amended the M-S Cooperative Forestry Act to extend eligibility to 1890 land-grant institutions, as discussed in the footnote to Figure 2.

Authorized Appropriations:

“there are hereby authorized to be appropriated such sums as the Congress may from time to time determine to be necessary but not exceeding in any one fiscal year one-half the amount appropriated for Federal forestry research conducted directly by the Department of Agriculture for the fiscal year preceding the year in which the budget is presented Funds appropriated and made available to the states under this Act shall be in addition to allotments or grants that may be made under other authorizations. (Underscore added.)

Requirement of Matching Funds from Non-Federal Sources:

“The amount paid by the Federal Government to any State-certified institution eligible for assistance under this Act shall not exceed during any fiscal year the amount available to and budgeted for expenditure by such college or university during the same fiscal year for forestry research from non-Federal sources.”

Allocation Mechanism or “Formula:”

Allocations to States and administrative expenses shall be determined by the Secretary of Agriculture after consulting with an advisory board. Allocations among States will consider *“pertinent factors including, but not limited to, areas of non-Federal commercial forest land and volume of timber cut annually from growing stock.”* These provisions have resulted in a three-variable “formula,” as described in the article text; values for each of the variables and the FY 2010 allocation for each state are

presented in Table 1. See Thompson and Bullard (2004, Appendix C) for an example calculation applying the formula to a specific state (Mississippi) in FY 1999

Advisory Committee: The Act directs the Secretary of Agriculture to appoint an advisory committee with equal representation from *“Federal-State agencies concerned with developing and utilizing the Nation’s forest resources and to the forest industries.”* USDA currently has a 20-member Forestry Research Advisory Council that fulfills this advisory role

Definition of Forestry Research:

The term “forestry research” includes investigations relating to: *“(1) reforestation and management of land for the production of crops of timber and other related products of the forest; (2) management of forest and related watershed lands to improve conditions of waterflow and to protect resources against floods and erosion; (3) management of forest and related rangeland for production of forage for domestic livestock and game and improvement of food and habitat for wildlife; (4) management of forest lands for outdoor recreation; (5) protection of forest land and resources against fire, insects, diseases, or other destructive agents; (6) utilizations of wood and other forest products; (7) development of sound policies for the management of forest lands and the harvesting and marketing of forest products; and (8) such other studies as may be necessary to obtain the fullest and most effective use of forest resources.”*

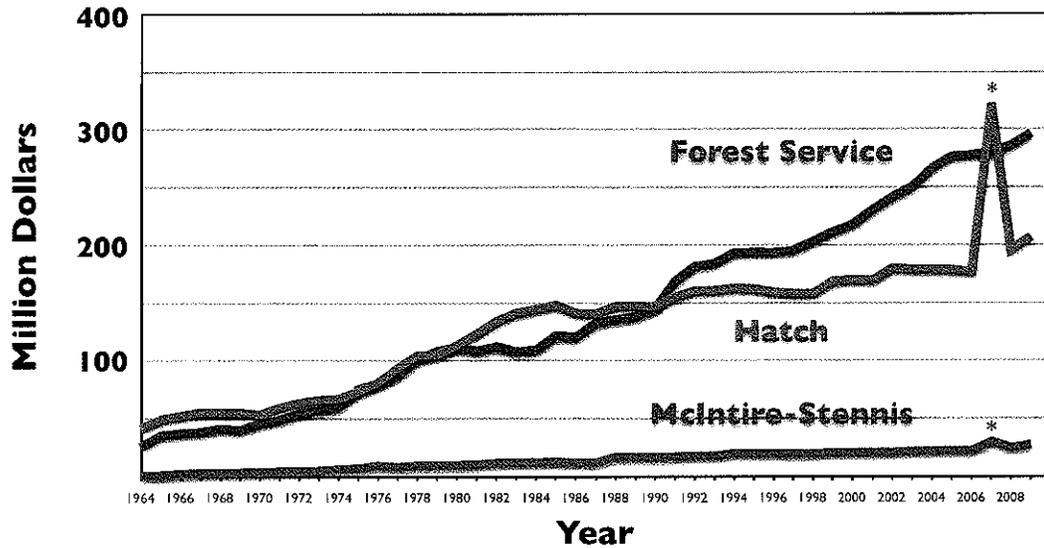
Figure 2. The percentage allocation of McIntire-Stennis funds for Federal FYs 2009-2013 in states with more than one institution certified to be eligible for funding.

	Federal Fiscal Year						Federal Fiscal Year				
	2009	2010	2011	2012	2013		2009	2010	2011	2012	2013
	----- Percent of State Allocation -----						----- Percent of State Allocation -----				
Alabama						Maryland					
Auburn U.	80	70	60	50	40	U MD	100	100	90	80	70
ALA&M U *	10	15	20	25	30	U MD E. Shore*	0	0	10	20	30
Tuskegee U *	10	15	20	25	30						
Arizona						Michigan					
Northern AZ U	50	-	-	-	-	MI St U.	33.3	-	-	-	-
U AZ	50	-	-	-	-	MI Tech U	33.3	-	-	-	-
						U MI	33.3	-	-	-	-
California						Mississippi					
U CA, Berk	85	-	-	-	-	MS St U.	100	80	-	-	-
CA St U, Humb	10	-	-	-	-	Alcorn St U *	0	20	-	-	-
CA Poly St U	5	-	-	-	-						
Connecticut						Missouri					
CT Ag Exp Stn	75	-	-	-	-	U MO	100	90	-	-	-
U CT, Storrs	25	-	-	-	-	Lincoln U *	0	10	-	-	-
Delaware						New York					
U DE	100	90	80	70	60	SUNY, Syr.	75	-	-	-	-
DE St U *	0	10	20	30	40	Cornell U	25	-	-	-	-
Florida						Tennessee					
U FL	100	90	-	-	-	U TN	100	90	85	-	-
FLA&M U.*	0	10	-	-	-	TN State U.*	0	10	15	-	-
Georgia						Texas					
U GA	100	90	-	-	-	S F Austin St U	50	-	-	-	-
Fort Valley St U *	0	10	-	-	-	TX A&M U	50	-	-	-	-
Illinois						Virginia					
U IL	50	-	-	-	-	VA Tech	90	-	-	-	-
Southern IL U	50	-	-	-	-	VA St. U.*	10	-	-	-	-
Kentucky						Washington					
U KY	90	85	-	-	-	WA St. U.	45	-	-	-	-
KY St U *	10	15	-	-	-	U WA	55	-	-	-	-
Louisiana						West Virginia					
LA St. U	70	64.75	61.25	57.75	-	WV U	100	90	-	-	-
LA Tech U	30	27.75	26.25	24.75	-	WV St. U.*	0	10	-	-	-
Southern U.*	0	7.5	12.5	17.5	-						

- Indicates the same percentage allocation shown for the previous FY

*Section 7412 of the Food, Conservation, and Energy Act of 2008 (the 2008 Farm Bill) amended Section 2 of the original McIntire-Stennis legislation to make 1890 land-grant institutions eligible for M-S funding. In early 2009, USDA CSREES/NIFA contacted the Governor's office in each state with an 1890 institution, requesting that they specify the State-certified institutions for Federal FY 2009 and beyond, and their associated percentages of M-S funds. USDA guidelines limit the degree of change in funding for any one state or university each year, so in some states it will take more than one year to implement the full percentage change(s) for the 1890 institution(s). The percentages shown for each FY in Figure 2 are based on USDA NIFA information dated November 17, 2009.

Figure 3. Research funding for the USDA Forest Service, the Hatch Program, and the McIntire-Stennis Program for Federal fiscal years 1964 – 2009. [Sources: USDA Current Research Information System (<http://cris.nifa.usda.gov>), the USDA Forest Service (<http://www.fs.fed.us/aboutus/budget/>) and Thompson and Bullard (2004).]



* In FY 2007, significant increases are shown in both Hatch and M-S funding. This is due to a change made in 2007 only, where Federal “earmark” programs in agriculture and forestry were defunded and specific earmarked appropriations were added to the formula fund programs.

Table 1. Updated version of this info will be provided for FY 2010. (Catalino is working on the #s.)

APPENDIX B

Table B. 1 CSREES Calculations for FY 1999 Distribution of McIntire-Stennis Funds¹

A	B	C	D	E	F	G	H	I
State	Non-Federal Land (M. Acres)	Timber Harvest (M Ft3.)	Non-Federal Funding	M/S Funds Without \$25M Base Funds	M/S Funds With \$25M Base Funds	M/S Funds Less SBA & Bio Deductions	M/S Funding FY 1999 Funds	Rank
Alabama	21,077	1,072,506	\$2,444,198	\$697,519	\$722,519	\$18,373	\$704,146	50
Alaska	10,827	240,141	\$725,837	\$446,412	\$471,412	\$11,987	\$459,425	32
Arizona	1,274	67,264	\$2,309,551	\$292,958	\$317,958	\$8,085	\$309,873	21
Arkansas	14,697	758,417	\$1,033,829	\$599,866	\$624,866	\$15,889	\$608,977	43
California	7,522	908,025	\$6,506,152	\$641,717	\$666,717	\$16,954	\$649,764	46
Colorado	3,597	33,857	\$1,224,987	\$279,008	\$304,008	\$7,731	\$296,277	20
Connecticut	1,754	21,059	\$946,331	\$209,256	\$234,256	\$5,957	\$228,299	15
Delaware	376	3,204	\$19,891	\$41,851	\$66,851	\$1,670	\$65,151	3
Florida	13,422	615,910	\$1,598,276	\$544,065	\$569,065	\$14,471	\$554,594	39
Georgia	22,260	1,325,665	\$5,394,966	\$739,370	\$764,370	\$19,437	\$744,933	53
Guam	0	0	\$0	\$13,950	\$38,950	\$990	\$37,960	1
Hawaii	700	0	\$767,139	\$153,454	\$178,454	\$4,538	\$173,916	11
Idaho	4,218	333,015	\$3,677,880	\$460,362	\$485,362	\$12,342	\$473,020	33
Illinois	3,738	68,123	\$1,144,169	\$334,809	\$359,809	\$9,149	\$350,660	24
Indiana	3,967	92,730	\$2,322,605	\$362,710	\$387,710	\$9,859	\$377,851	26
Iowa	1,900	26,157	\$1,674,290	\$251,107	\$276,107	\$7,021	\$269,086	18
Kansas	1,171	8,327	\$306,577	\$139,504	\$164,504	\$4,183	\$160,321	10
Kentucky	11,476	100,145	\$1,057,224	\$404,561	\$429,561	\$10,923	\$418,638	29
Louisiana	13,053	814,141	\$1,867,798	\$613,817	\$638,817	\$16,244	\$622,572	44
Maine	16,928	459,378	\$2,822,045	\$571,965	\$596,965	\$15,180	\$581,785	41
Maryland	2,399	39,272	\$281,637	\$223,206	\$248,206	\$6,312	\$241,894	16
Massachusetts	2,942	36,809	\$905,699	\$265,057	\$290,057	\$7,358	\$282,681	19
Michigan	15,003	382,930	\$7,676,746	\$627,767	\$652,767	\$16,599	\$636,168	45
Minnesota	12,755	287,979	\$4,330,633	\$516,164	\$541,164	\$12,761	\$527,403	37
Mississippi	15,499	961,515	\$5,590,202	\$669,618	\$694,618	\$17,663	\$676,955	48
Missouri	11,804	135,928	\$1,061,043	\$432,462	\$457,462	\$11,633	\$445,829	31
Montana	6,679	258,529	\$2,414,457	\$418,511	\$443,511	\$12,278	\$432,233	30
Nebraska	507	5,383	\$579,305	\$111,603	\$136,603	\$3,474	\$133,129	8
Nevada	115	615	\$613,141	\$97,653	\$122,653	\$3,119	\$119,534	7
New Hampshire	4,225	85,670	\$537,330	\$306,908	\$331,908	\$8,440	\$323,468	22
New Jersey	1,845	17,646	\$425,309	\$181,355	\$206,355	\$5,247	\$201,108	13
New Mexico	2,055	29,523	\$1,274,559	\$237,156	\$262,156	\$6,666	\$255,490	17
New York	15,648	222,831	\$16,797,107	\$655,658	\$680,658	\$17,308	\$663,359	47
North Carolina	17,191	958,001	\$6,121,772	\$683,568	\$708,568	\$18,018	\$690,551	49
North Dakota	327	1,687	\$248,116	\$69,751	\$94,751	\$2,409	\$92,342	5
Ohio	7,380	113,139	\$621,256	\$376,660	\$401,660	\$10,213	\$391,447	27
Oklahoma	5,654	84,103	\$974,003	\$348,759	\$373,759	\$9,504	\$364,255	25
Oregon	9,485	1,365,806	\$10,817,934	\$725,416	\$750,416	\$19,082	\$731,337	52
Pennsylvania	15,333	284,046	\$2,602,411	\$502,214	\$527,214	\$13,406	\$513,807	36
Puerto Rico	589	2,079	\$100,607	\$83,703	\$108,703	\$2,764	\$105,938	6
Rhode Island	371	2,587	\$36,741	\$55,802	\$80,802	\$2,055	\$78,747	4
South Carolina	11,266	713,065	\$995,424	\$530,114	\$555,114	\$14,116	\$540,999	38
South Dakota	531	35,533	\$163,544	\$125,553	\$150,553	\$3,828	\$146,725	9
Tennessee	12,238	368,794	\$2,346,758	\$488,263	\$513,263	\$13,051	\$500,212	35
Texas	11,844	621,291	\$4,240,002	\$585,916	\$610,916	\$15,535	\$595,381	42
Utah	765	11,494	\$535,144	\$153,454	\$178,454	\$4,538	\$173,916	11
Vermont	4,197	75,081	\$724,343	\$320,859	\$345,859	\$8,795	\$337,064	23
Virgin Islands	20	400	\$45,161	\$27,901	\$52,901	\$1,345	\$51,556	2
Virginia	13,624	558,716	\$3,327,313	\$558,015	\$583,015	\$14,825	\$568,190	40
Washington	11,207	1,228,048	\$8,523,262	\$711,469	\$736,469	\$18,727	\$717,742	51
West Virginia	10,920	71,060	\$965,535	\$390,611	\$415,611	\$10,568	\$405,042	28
Wisconsin	13,492	360,685	\$1,659,762	\$474,313	\$499,313	\$12,697	\$486,616	34
Wyoming	1,647	41,312	\$264,018	\$195,305	\$220,305	\$5,603	\$214,703	14
TOTALS	393,514	16,309,621	\$125,644,019	\$19,949,024	\$21,274,024	\$540,920	\$20,733,069	1430

¹Post-Boyd per comm. May 10 1999 CSREES