

**Final Report on  
Evaluation of the Communication Between  
Land-Grant Universities and Congress**

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by

Kristina M. Boone  
Kansas State University

Mark Tucker  
The Ohio State University

Jackie M. McClaskey  
Kansas State University

301 Umberger Hall  
Manhattan, Kansas 66506

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## Executive Summary

Land-grant universities are challenged to diffuse useful, practical information to the public. In order to accomplish this, information must be targeted to these different publics. Without analyzing the audience's needs, it is difficult to determine how best to communicate with those groups. While the methods used in information dissemination have changed markedly in the past 80 years, delivery methods also need to keep pace. A key audience for land-grants is Congressional aides. These individuals inform policy and funding decisions. They strongly impact the land-grant system through these decisions.

This document provides a report on research conducted with this key audience. The research used both qualitative and quantitative methods to describe opinions and characteristics of this audience and to determine familiarity with the USDA Science and Education Impact Fact Sheet Program, which was established in 1995 to provide land-grant information to legislative aides and others. The methodology section describes data collection, which is a significant issue with this audience. The attention of these professionals is sought by numerous groups, and the aides' time can be quite restrictive. Further, some offices even prohibit completion of questionnaires. While data collection did require creative measures, a good response rate was achieved, and the results were interesting. A number of themes emerged from results of the study:

1. Information they received was more valued if it could be easily understood by laypersons and was perceived to have current or future use (P. 8).
2. The primary contact at land-grant universities was the governmental relations personnel or faculty who worked in the policy area in which the aide was interested. Land-grants were viewed as sources of policy information and analysis and producers of practical research related to rural settings and development of technology. In addition, they perceived the research to be practical (P. 8).
3. To improve communication, the participants felt more interaction with faculty at land-grants would be helpful, especially if the interaction occurred at a time when a pressing issue was at hand (P. 8).
4. In the qualitative portion of the study, the participants said they liked the format of the Impact Science and Education Fact Sheets, although none of the legislative aides reported seeing them prior to the focus group. They wanted a contact name added to the sheets (P. 8).
5. Congressional aides are a diverse group that defies simple demographic description in terms of age, education, or knowledge level (P. 10).
6. Congressional aides' workloads and responsibilities vary greatly. There is also a great deal of variation in the average number of years reported in their current position, although the large majority reported 2 years or less (P. 10).
7. Congressional aides tend to favor interpersonal communication channels, such as personal contacts and e-mail, for receiving policy information. However, the Internet and World Wide

Web tend to be mentioned as the single most preferred channels (P. 11). Building and maintaining a presence on the Web is important. Thought should be given to positioning the Web site so it can be accessed through key word searches.

8. Traditional media channels are not viewed equally by congressional aides. Newspapers and fact sheets continue to be used often by a majority of respondents for receiving policy information. Television and radio are used much less frequently (P. 11).

9. Congressional aides clearly favor internal sources of information, such as the Congressional Research Service and House/Senate agriculture committees, for researching agricultural policy topics (P. 12).

10. Paid-subscription sources were less likely to generate use among congressional aides than were free subscriptions (P. 12).

11. The Science and Education Impact Fact Sheets were recognized by about 50 percent of the congressional aides in the quantitative portion of this study. Fewer than 8 out of ten respondents were aware of the National Impact Database (P. 12).

12. In general, the Science and Education Impact Fact Sheets were considered to be well-written, designed, and organized (P. 13).

13. Congressional aides had moderate to high levels of expectation that land-grant universities could serve as an information resource for a variety of topics. There is evidence, however, that respondents are not aware that land-grant universities are a viable information resource for non-agricultural and less traditional topics (P. 13).

14. Land-grant universities tend to receive high marks for their reliability, reputation, and level of knowledge. On other characteristics, such as their perceived responsiveness and influence, land-grant universities tended to be assessed positively, although a substantial minority of respondents were undecided. There is clearly room for improvement in these and other areas (P. 13). Land-grant universities can leverage their visibility among Congressional aides by building a reputation as a valued source of information for agricultural and natural resource organizations and agribusiness.

15. The most common leadership style used by the Congressional aides was contingent reward, a transactional leadership style that focuses on an exchange (“I’ll do this for you if you do this for me”). This finding may help explain the attitude of Congressional aides when sources provide information to them and suggests that land-grant universities and others adjust for that in their approach (P. 13).

16. While the majority of Congressional aides in this study reported regular communication with a land-grant university, a substantial minority indicated no contact with them or a lack of knowledge on whom to contact in the event they wished to do so (P. 16).

## **Introduction**

Along with effective media relations, many private- and public-sector organizations have established or bolstered existing government relations programs in recent years. No longer pursued only by large corporations, government relations activities have become increasingly commonplace among small- and medium-sized organizations and industries. As with media relations, the primary goal is to create a positive awareness and image of an organization's or industry's particular activities and contributions.

While ideal goals and purposes of media and government relations can be easily identified, they are typically much more difficult to accomplish. A major challenge in media relations is that organizations must compete with literally hundreds of other groups for a finite amount of media time, space, and attention. While new media channels such as the Internet and World Wide Web offer additional avenues for reaching key audiences, they also demand more time and expertise that may not be available in organizations with limited human and financial resources. Similar challenges exist in launching and maintaining government relations programs. Without adequate resources and expertise, few organizations can hope to compete successfully. Adding to the dilemma is the difficulty and expense in measuring the success of such programs. Tangible results from media and governmental relations activities are not always immediately visible, which may call into question their value during difficult economic times.

As organizations seek to become more accountable for time and resources devoted to media and government relations activities, there is an increased need for recent and reliable data on communication-related attitudes and behaviors of their target audiences. This situation is particularly true in the land-grant system, which has embraced public accountability since its inception (Richardson et al., 2000; Jackson and Smith, 1999).

Research was conducted to investigate the use of communications channels and sources by Congressional aides and the effectiveness of the USDA Science and Education Impact Fact Sheet Program. The goal of the USDA program is to communicate tangible effects of USDA-Extension programming as a strategy to help maintain investment in land-grant and USDA research and educational programs. Sample topics for the Impact Fact Sheets have included animal health, agriculture and the environment, parenting, waste management, low-resource client needs, and local problem-solving with land-grant expertise.

The primary objectives of this study were as follows:

1. To determine Congressional aides' awareness and use of the USDA fact sheets and companion database;
2. To identify aides' communication source and channel preferences for receiving relevant information;
3. To determine aides' attitudes toward land-grant universities; and
4. To discover leadership styles to gain a more complete understanding of the aides.

### **Review of Literature**

Legislative business has grown dramatically in scope and volume in recent years. Congressional workload has nearly doubled since the 1950s as members spend more time in session, committee meetings, and floor votes (Davidson and Oleszek, 2000). Legislators must consider literally thousands of bills and vote hundreds into law yearly (Paletz, 1999). Legislation has also become more complex in recent years.

Congressional members' demanding schedules lead them to rely heavily on staffs of legislative aides to help conduct research on important issues. Legislative aides are typically young, well-

educated, transient individuals who conduct research and obtain background information on a variety of specific issues. They communicate with lobbyists, outside interest groups and executive branch officials and later report the outcomes of such correspondence to congressional members. Because they interact with many outside sources, legislative aides are in a strategic position to advance or hinder policy proposals by including issues they favor and omitting the ones they oppose as they draft reports for congressional members (Davidson and Oleszek, 2000).

In forming such judgments, legislative aides rely upon a wide range of both internal (within the legislative branch) and external sources for data and background information.

Committee reports provide aides and members with valuable information pertaining to legislative matters. Each bill is accompanied by a written report that usually provides such information as the bill's purpose, effects on existing law, estimated implementation costs, and solicited comments from relevant agencies (Congressional Quarterly, 1998). Committee hearings and reports provide lawmakers with information necessary to make informed judgments.

Other important internal sources of legislative information are congressional support agencies that provide timely, relevant data to members (Wells, 1996; Davidson and Oleszek, 2000). The oldest and most frequently used legislative support agency is the Congressional Research Service (CRS), a unit of the Library of Congress that employs an expert staff (Wells, 1996).

Another congressional support agency, the General Accounting Office (GAO), focuses on ways to improve the effectiveness of government agencies and programs by eliminating wasteful and fraudulent practices. A third support agency, the Congressional Budget Office (CBO), is mainly responsible for giving Congress fiscal information pertaining to the congressional budget and legislative processes (Fox and Hammond, 1977; Wells, 1996).

In addition to internal sources of information, external sources can also be valuable to congressional members. Other external sources involve special interest groups, such as labor, farm, and environmental organizations. A group's level of influence in the legislative arena depends on such factors as the quality of its arguments; its membership size and the cohesion among members; its financial and staff resources; the enthusiasm and persistence of its leadership; and its ability to gain political power by forming coalitions with other groups (Oleszek, 1996). Congressional members also rely on outside organizations of experts that specialize in particular legislative issues, including nongovernmental research groups that occasionally hold seminars and debates open to congressional members. A final external source of information is the mass media. Congressional members and their staff access various local and national media channels – newspapers, magazines, journals, the Internet, television – to monitor public response to legislative matters (Paletz, 1999).

## **Methodology**

**Data collection.** Both qualitative and quantitative data were collected in this study. It is important to note that the emphasis of qualitative studies is on understanding the phenomena of interest by collecting rich data that are poorly represented by numeric interpretations (Patton, 1990). Generalizing these data to a larger population is typically not the goal. A focus group question route was designed to use in two focus group settings, although only the first focus group could be conducted due to poor attendance at the second, which fell during Senate debate on agricultural legislation. The question route for the focus group was field-tested prior to use and modified based on those results (Krueger, 1994). The focus group was conducted in July 2000 with eight participants.

In the quantitative portion of the study, a questionnaire was developed by the authors to address the objectives of the study. A panel consisting of persons knowledgeable about the target audience, questionnaire design, and land-grants was used to determine the face and content validity of the questionnaire (Fink, 1995). The surveys were completed during meals hosted by the researchers and hand-delivered to offices of those who did not or could not attend. Accompanying the questionnaire was a sample fact sheet and a cover letter explaining the purpose and goals of the research. These materials were delivered in July 2000 with follow-up measures in August. Of the 171 Congressional aides in the sample, 54 returned questionnaires for a 32 percent response rate. The response rate was deemed adequate given the nature of the target group and the purpose of the research.

**Measurement of selected study variables.** In the qualitative portion of the study, questions for the focus group were concentrated on general communications and the Science and Education Impact Sheets. In the quantitative portion, two sets of questions focused specifically on respondents' communication behaviors and attitudes. Three sets of questions were used to measure respondents' attitudes toward various aspects of the USDA Science and Education Fact Sheets and land-grant universities. A series of 22 statements were taken from the Multifactor Leadership Questionnaire (MLQ) (Bass and Avolio, 1995) to assess respondents' self-perceptions of various leadership style characteristics

Four multiple-choice-type questions were included in the research to gain insights into respondents' knowledge of the land-grant system. Also respondents were asked to identify the name of the federal partner for land-grant universities. A number of remaining questions focused on demographic and occupational characteristics of the respondents.

Item analysis was used to assess reliability for selected items in the survey instrument. The resulting alpha coefficients ranged from .69 to .94 and were judged adequate.

**Data Analysis.** Data from the focus groups were coded by themes as they emerged from the data, a coding concept from grounded theory methodology (Glaser and Strauss, 1967). Following appropriate methods of analysis for qualitative data, clustered summary tables were developed and are presented with this report (Miles and Huberman, 1994).

Quantitative data were analyzed using the Statistical Package for the Social Sciences. Descriptive statistics, including frequencies, percentages, means, medians and standard deviations, were used to summarize respondents' demographic and attitudinal characteristics. The MLQ item means were summed and divided by the number of items to determine the strength of the leadership style, following procedures described by Bass and Avolio (1995).

## **Findings**

### **Qualitative Findings**

Qualitative data from the focus group are presented in Tables 1 and 2. The participants indicated the information that they kept or filed for future use was generally written in a way that could be easily understood by laypersons. The information they kept was also perceived to have current or future use. The most cited source for information was the Congressional Research Service. The participants had interacted with universities primarily through government relations personnel or faculty who worked in the policy area. Most of this interaction was with the land-grant institutions in the legislator's home state, although this was not always the case.

The participants identified land-grants as resources for policy information and analysis and

expected the types of education and research information from these institutions to be related to rural settings and development of technology. In addition, they perceived the research to be practical. To improve communication, the participants recommended that government relations staff facilitate more interaction between the legislative aides (and legislators) and faculty, especially helping them establish relationships. It was further recommended that these interactions not take place when a pressing issue is on the floor, but instead in a more relaxed atmosphere. The participants also wanted to hear more about updates on funded programs and successes of land-grant programs. Table 1 presents these data in more detail.

When asked about the Impact Science and Education Fact Sheets, none of the legislative aides reported seeing them prior to the focus group (Table 2). The participants liked the format in general and thought it would be very helpful to include a contact name. Some liked the paper format, while others preferred an electronic version. There was concern that the electronic capabilities of the offices might not be suited for all electronic distribution.

The participants were asked whether distribution of the sheets should follow topics in current events. They felt that could be useful, but was not always necessary. While land-grants provide information in a great diversity of areas, the participants felt that the agriculture aide should generally receive the sheets. They agreed that a publicly accessible database of Impact information could be very useful if it were user friendly and provided more detailed information if needed.

**Table 1. Focus Group Responses on Communications Issues from Legislative Aides**

Topic	Comments	Quote
Types of information kept or filed	<ul style="list-style-type: none"> <li>• Fact sheets</li> <li>• Information that could be understood by layperson</li> <li>• Information with current or future relevance</li> <li>• Summaries of information</li> </ul>	“Things that are difficult or complex – if there’s a good summary of it, it can be used for another purpose.”
Use of Internet	<ul style="list-style-type: none"> <li>• Congressional Research Service</li> <li>• Listserves</li> <li>• Search Web by topic</li> <li>• Land-grants with policy web sites</li> </ul>	“I use CRS a lot.”
Bookmarked sites	<ul style="list-style-type: none"> <li>• Texas A&amp;M Policy Center</li> <li>• Groups that lobby – Farm Bureau, Corn Growers, etc.</li> </ul>	
Communication sources for university information	<ul style="list-style-type: none"> <li>• Government relations people on campus</li> <li>• Personal contacts</li> <li>• Home state and other</li> </ul>	“It might not be the institution in the home state or district, may be different institution. If they don’t know the answer, they’ll certainly direct you to someone else.”
Use of Research and Extension Service	<ul style="list-style-type: none"> <li>• Education and Research, unbiased</li> <li>• Rural oriented information</li> <li>• Practical</li> <li>• Development of technology/consumer attitudes toward technology</li> <li>• Farm program analyses</li> </ul>	“Only if it’s more rural oriented; not so much consumer; practical, the approach in writing, presentation information.”
How to improve communications	<ul style="list-style-type: none"> <li>• Increase interaction between faculty and legislative aides/legislators</li> <li>• Establish relationships</li> <li>• Provide updates on programs and information on successes</li> </ul>	<p>“To get to know them, to get to know what their expertise is, what kinds of things they’re working on, and to talk about it in a format that isn’t really technical format.”</p> <p>“It sometimes seems we only see the land grants at appropriations time.”</p> <p>“If there’s a problem, we know about it.... When I have farmers complain about the extension or that the researchers aren’t doing anything, it’s very difficult to respond to.”</p>



**Table 2. Focus Group Responses on Impact Sheets from Legislative Aides\***

Topic	Comment	Quote
Format	<ul style="list-style-type: none"> <li>• Appropriate for awareness</li> <li>• Too general for much use</li> <li>• State specific information would compliment national focus</li> <li>• Needs contact information for follow up</li> </ul>	“For me it was perfect in terms of how much information it gave. I could decide if I needed more information and then I could just call. I would definitely want to be able to follow up with the institution.”
Paper v. electronic	<ul style="list-style-type: none"> <li>• Depends on preference and logistics</li> <li>• If electronic, needs consistent subject line</li> <li>• Hotlink to expanded version would be helpful</li> <li>• Some concern that e-mail system couldn’t handle it</li> </ul>	“Electronic format. We can set our rules (so that it) automatically goes to a folder, a special folder goes to that topic.”
Current event driven	<ul style="list-style-type: none"> <li>• Interest in items related to current topics in news or legislature</li> <li>• State reference is helpful but not necessary</li> <li>• Good to know what research is being conducted in general</li> </ul>	“I’m always curious though, just in general, about what other research is going on. I wouldn’t necessarily want it all current facts.”
Who receives	<ul style="list-style-type: none"> <li>• Agriculture or environmental aide</li> <li>• Material will be circulated</li> </ul>	“We always sort of have those borderline issues. Depending on how deep into the subject matter it is, you’d just pass it on to the L.A. It could still go to the ag aide and then pass it on.”
Use of Impact Database	<ul style="list-style-type: none"> <li>• Research project</li> <li>• Speech</li> <li>• Background information</li> <li>• Second resource</li> </ul>	“Having a database on line is a great alternative.”

\*Note: None had seen the Impact sheets before the focus group

## Quantitative Findings

Two-thirds (66.7 percent) of the respondents were males. Ages of respondents varied widely, from 20 to 65. The median age was 27. More than 40 percent of the respondents reported ages between 25 and 29. About 87 percent indicated they held a bachelor’s degree, while 35 percent indicated they held a master’s degree. About 9 percent of the respondents reported holding a law degree, while 5 percent reported holding a doctorate. The subjects for which they served as the primary contact in the office varied a great deal, but all included either agriculture or environment/natural resources. Agriculture was represented by almost all the participants.

**How and Where Respondents Work.** Respondents indicated a wide range of hours devoted to legislative research per week. The number of hours reported ranged widely, from 2 to 45, with a mean of 16.3 and standard deviation of 10.3 indicating a great deal of variance.

More than half (53.7 percent) indicated working in a House member’s personal office, while more than one-fourth (25.9 percent) indicated working in a Senate member’s personal office.

About 9 percent indicated they worked on a House committee, and about 7 percent indicated they worked on a Senate committee. Respondents were asked to indicate the number of years in their current position. The responses ranged from 1 year to 18 years. The mean number of years was 2.56 with a standard deviation of 2.62. More than one-third of the respondents (35.2 percent) indicated being in their current position for 1 year.

Nearly two-thirds of the respondents (64.8 percent) indicated that they communicated regularly with a contact individual from their state’s land-grant university. One-fourth (25.9 percent) said they did not regularly communicate with such a contact, but did know whom to contact in the event they wished to do so. Just 10 percent indicated they did not know whom to contact or did not answer the question.

**Communication Behaviors and Attitudes.** Findings showed that respondents use a variety of **communication channels** for receiving policy information. As shown in Table 3, personal contacts, e-mail, and Internet/World Wide Web were the channels used most frequently, while computer databases, radio, and CD-ROMs were the least used channels.

When asked what their most useful channel was nearly 45 percent of the respondents indicated that the Internet/World Wide Web. Personal contacts were mentioned by just more than 35 percent. Electronic mail was a distant third, mentioned by just over 5 percent.

**Table 3. Congressional Aides’ Reported Frequency of Use for Various Communication Channels for Receiving Policy Information, Presented in Percentages (n=54)**

	----- Frequency of Use -----						MD	Mean <sup>1</sup>	SD
	Never	Occasionally	Frequently						
1. Personal Contacts	0.0	0.0	0.0	5.6	33.3	59.3	1.9	5.55	.61
2. E-Mail	0.0	0.0	1.9	1.9	38.9	55.6	1.9	5.51	.64
3. Internet/World Wide Web	0.0	0.0	3.7	3.7	33.3	59.3	0.0	5.48	.75
4. Newspapers	0.0	5.6	14.8	9.3	37.0	33.3	0.0	4.78	1.22
5. Fact Sheets	0.0	3.7	9.3	18.5	44.4	20.4	3.7	4.71	1.04
6. Newsletters	5.6	11.1	22.2	25.9	25.9	9.3	0.0	3.83	1.34
7. Television	9.3	24.1	14.8	22.2	14.8	13.0	1.9	3.49	1.56
8. Magazines	1.9	18.5	29.6	33.3	14.8	1.9	0.0	3.46	1.08
9. Seminars/Conferences	5.6	16.7	31.5	24.1	16.7	3.7	1.9	3.42	1.23
10. Technical Reports	3.7	25.9	20.4	37.0	7.4	3.7	1.9	3.30	1.17
11. Computer Databases	16.7	18.5	14.8	25.9	14.8	7.4	1.9	3.26	1.55
12. Radio	16.7	24.1	37.0	9.3	7.4	3.7	1.9	2.77	1.28
13. CD-ROMs	44.4	27.8	9.3	9.3	5.6	0.0	3.7	2.00	1.22
14. Other	0.0	0.0	0.0	0.0	1.9	0.0	98.1	5.00	0.00
15. Other	0.0	0.0	0.0	1.9	0.0	0.0	98.1	4.00	0.00

<sup>1</sup> Items are scaled from 1 to 6, never use to frequently use.  
MD = missing data.

Analysis of respondents’ preferred information sources revealed that they were most likely to use internal and government **sources of information**, such as the Congressional Research Service, House or Senate agriculture committees, and3 USDA (Table 4). General mass media and communication organizations were the least likely to be used. When asked what their most useful source was more than one-fourth (27.8 percent) of the respondents indicated the Congressional Research Service.

**Table 4. Congressional Aides' Perceived Likelihood of Using Various Communication Sources for Researching Agricultural Policy Topics, Presented in Percentages (n=54)**

	Not Likely		Moderately Likely		Very Likely		MD	Mean <sup>1</sup> SD	
1. Congressional Research Serv.	0.0	0.0	0.0	7.4	25.9	66.7	0.0	5.59	.63
2. House/Senate Ag Committee	1.9	1.9	1.9	16.7	25.9	51.9	0.0	5.19	1.10
3. USDA	0.0	0.0	7.4	18.5	40.7	33.3	0.0	5.00	.91
4. Library of Congress	0.0	1.9	3.7	20.4	37.0	33.3	3.7	5.00	.95
5. Government agencies	0.0	0.0	3.7	18.5	51.9	25.9	0.0	5.00	.78
6. Other Congressional Aides	0.0	5.6	3.7	22.2	33.3	33.3	1.9	4.87	1.11
7. Agriculture and/or Natural Resource Organizations	0.0	1.9	11.1	16.7	46.3	22.2	1.9	4.77	.99
8. Constituents	0.0	5.6	13.0	20.4	27.8	31.5	1.9	4.68	1.22
9. Agribusiness contacts	3.7	3.7	9.3	16.7	37.0	25.9	3.7	4.63	1.30
10. Internet key word search	1.9	9.3	9.3	14.8	33.3	29.6	1.9	4.60	1.36
11. Agricultural media	0.0	1.9	13.0	40.7	29.6	14.8	0.0	4.43	.96
12. General Accounting Office	0.0	9.3	7.4	33.3	33.3	16.7	0.0	4.41	1.14
13. Land-Grant Universities	0.0	7.4	16.7	20.4	37.0	16.7	1.9	4.40	1.18
14. Private consultants/experts	9.3	9.3	7.4	11.1	35.2	25.9	1.9	4.34	1.63
15. Congressional testimony	0.0	7.4	24.1	24.1	24.1	20.4	0.0	4.26	1.25
16. Congressional Budget Office	0.0	16.7	7.4	40.7	20.4	13.0	1.9	4.06	1.23
17. Free subscription/membership to Web Services/News	3.7	14.8	13.0	20.4	33.3	11.1	3.7	4.02	1.39
18. Free subscription to print publications	3.7	14.8	16.7	37.0	22.2	5.6	0.0	3.76	1.23
19. Lexis-Nexis or similar Internet source	5.6	18.5	16.7	29.6	22.2	5.6	1.9	3.62	1.33
20. Paid subscription to print publications	13.0	13.0	20.4	24.1	20.4	7.4	1.9	3.49	1.49
21. Paid subscription/membership to Web Services/News	18.5	18.5	14.8	14.8	18.5	14.8	0.0	3.41	1.74
22. Mass media	3.7	24.1	25.9	35.2	9.3	1.9	0.0	3.28	1.11
23. Communication organizations	3.7	22.2	35.2	22.2	13.0	0.0	3.7	3.19	1.07
24. National Public Radio	31.5	22.2	24.1	14.8	7.4	0.0	0.0	2.44	1.28
25. Other	0.0	0.0	1.9	0.0	1.9	0.0	96.3	4.00	1.41
26. Other	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.00	0.00

<sup>1</sup> Items scaled 1 to 6, not likely to very likely.  
MD = missing data.

**Attitudes toward Impact Fact Sheets and Land-Grant Universities.** Half of the respondents (50 percent) indicated they had never seen a Science and Education Impact Fact Sheet, and 9 percent indicated they were not sure. More than half of the respondents who reported having seen the fact sheet indicated that they had also used it at least one time.

About 83 percent of the respondents indicated they were unaware of the USDA National Impact Database. Of the 8 respondents who were aware of the database, 5 indicated they had used it at least one time.

Results shown in Table 5 indicate generally positive attitudes toward the USDA Science and Education Impact Fact Sheets. More than three-fourths of the respondents (77.8 percent) felt that the facts sheets provided credible information, while more than half (57.4 percent) said they would file or save them for future use. Well over half of the respondents rated the fact sheets favorably with regard to writing style, length, and format.

A large majority of respondents felt that the fact sheets should cover timely topics and those of current interest (Table 5). More than three-fourths of the respondents (77.8 percent) indicated they would access Impact information if available in a user-friendly web site, while well over half (63 percent) said they would prefer to access Impact information by computer.

Relative to perceptions about land-grant universities, more than three-fourths of the respondents (77.8 percent) indicated that these institutions were valuable sources of information. Well over half (66.7 percent) of the respondents indicated that USDA was an excellent source for land-grant university research. Table 6 provides information on respondents' expectations of land-grant universities to serve as an information resource for various topics. Results show that respondents' expectations of land-grant universities were highest for such topics as agriculture policy, biotechnology, agricultural marketing, food safety, and pest management. The lowest levels of expectation were indicated for child care, youth, and parenting issues.

Respondents' subjective assessments of land-grant universities are provided in Table 7. As shown, mean values for the 11 attitudinal items ranged from 5.90 to 4.22 on the 7-point scale, indicating moderately to slightly favorable attitudes for all the items assessed. Respondents ranked land-grant universities highest on the basis of their reputation and reliability, and lowest on their familiarity and perceived bias.

Leadership style data from the MLQ are provided in Table 8. The style used most frequently was the contingent reward, a transactional leadership style. The leadership styles measured in the MLQ and a brief summary of each style's characteristics follow:

- Idealized influence (attributed and behavior) (IIA and IIB)—values respect and confidence of others and oriented to purpose. IIA focuses on beliefs, while IIB concentrates on behaviors.
- Inspirational motivation (IM)—enthusiastically focuses on high standards and opportunities.
- Intellectual stimulation (IS)—encourages creativity and new perspectives.
- Individualized consideration (IC)—focuses on individuals, making them feel valued.
- Contingent reward (CR)—concentrates on reward for behavior or effort.
- Management by exception (active and passive) (MBEA and MBEP)—focuses on problems. Seeking problems in order to track, solve, or prevent them is characteristic of MBEA, while waiting for problems to emerge follows the more passive pattern.
- Laissez faire leadership (LFL)—avoids active leadership and involvement.

The IIA, IIB, IM, IS, and IC are considered transformational leadership styles that inspire motivation and enthusiasm. CR is a transactional leadership style with an emphasis on *quid pro quo*, or leadership based on rewards. It was followed by the transformational leadership styles (IIA, IIB, IM, IS, IC). The least frequently used leadership styles were the Management by exception—passive and Laissez faire.

**Table 5. Congressional Aides' Opinions about USDA Science and Education Impact Fact Sheets and Land-Grant Universities, Presented in Percentages (n=54)**

	<b>Strongly Agree</b>	<b>Agree</b>	<b>Undecided</b>	<b>Disagree</b>	<b>Strongly Disagree</b>	<b>MD</b>	<b>Mean</b>	<b>SD</b>
<b>Content and Usefulness of Fact Sheets</b>								
a. The Impact information should cover topics of current interest.*	18.5	63.0	13.0	0.0	0.0	5.6	4.06	.58
b. Impact Fact Sheets provide credible information.*	16.7	61.1	16.7	0.0	0.0	5.6	4.00	.60
c. The Impact Fact Sheets do not contain useful information.**	1.9	0.0	14.8	66.7	7.4	9.3	3.86	.65
d. A contact name and number where I could receive more information.*	5.6	48.1	22.2	1.9	1.9	20.4	3.67	.75
e. Impact Fact Sheets provide relevant information I can use.*	1.9	61.1	27.8	1.9	1.9	5.6	3.63	.66
f. I would file or save the Impact Fact sheets.*	11.1	46.3	24.1	7.4	3.7	7.4	3.58	.95
g. The information in the Data Sheets is accessible from other sources.**	1.9	37.0	38.9	9.3	0.0	13.0	2.64	.70
<b>Format and Style of Fact Sheets</b>								
h. The writing in the Impact Fact Sheets is difficult to understand.**	0.0	1.9	14.8	66.7	11.1	5.6	3.92	.59
i. The information in the Impact Fact Sheets is well organized.*	3.7	70.4	20.4	0.0	0.0	5.6	3.82	.48
j. The Impact Fact Sheets are too short for me.**	1.9	5.6	27.8	48.1	11.1	5.6	3.65	.84
k. The current format of Impact Fact Sheets is satisfactory.*	0.0	63.0	24.1	5.6	0.0	7.4	3.62	.60
l. The Impact Fact Sheets lack enough detail to be of value to me.**	3.7	13.0	20.4	51.9	3.7	7.4	3.42	.93
<b>Receiving Impact Information</b>								
m. The delivery of Impact information must be timely to be useful.*	25.9	63.0	5.6	0.0	0.0	5.6	4.22	.54
n. I would access the information if user-friendly web site.*	11.1	66.7	13.0	1.9	0.0	7.4	3.94	.59
o. The Impact information should be available to me upon request*	9.3	61.1	22.2	1.9	0.0	5.6	3.82	.62
p. I would prefer to access Impact info by computer.*	13.0	50.0	14.8	14.8	1.9	5.6	3.61	.98
q. I would use a computerized database with information available*	13.0	40.7	27.8	11.1	0.0	7.4	3.60	.88
<b>Land-Grant Universities</b>								
r. Land grant universities are valuable sources of information.*	31.5	46.3	13.0	1.9	0.0	7.4	4.16	.74
s. USDA is an excellent source for land-grant university research.*	3.7	63.0	22.2	5.6	0.0	5.6	3.69	.65
t. The only information I need from is my state's university*	9.3	25.9	22.2	35.2	1.9	5.6	3.06	1.07

\* Items are scaled 5 to 1, strongly agree to strongly disagree.

MD = missing data.

\*\* Items are scaled 1 to 5, strongly agree to strongly disagree.

**Table 6. Congressional Aides' Expectations of Land-Grant Universities as and Information Resource for Various Topics, Presented in Percentages (n=54)**

	----- Level of Expectation -----						MD	Mean <sup>1</sup>	SD
	None		Moderate		High				
1. Agriculture policy	0.0	1.9	9.3	16.7	14.8	57.4	0.0	5.17	1.13
2. Biotechnology	0.0	3.7	7.4	13.0	25.9	50.0	0.0	5.11	1.13
3. Agricultural marketing	0.0	1.9	3.7	18.5	40.7	35.2	0.0	5.04	.93
4. Food safety	0.0	3.7	3.7	20.4	29.6	40.7	1.9	5.02	1.07
5. Pest management	0.0	1.9	7.4	18.5	29.6	40.7	1.9	5.02	1.05
6. Animal health	0.0	5.6	7.4	16.7	29.6	40.7	0.0	4.93	1.18
7. Rural economic development	0.0	3.7	9.3	18.5	37.0	29.6	1.9	4.81	1.09
8. Water quality	0.0	1.9	9.3	24.1	33.3	27.8	3.7	4.79	1.04
9. Conservation practices	1.9	3.7	7.4	22.2	29.6	33.3	1.9	4.77	1.22
10. Environmental issues	0.0	3.7	11.1	24.1	27.8	31.5	1.9	4.74	1.15
11. Nutrition	1.9	1.9	9.3	31.5	24.1	31.5	0.0	4.69	1.18
12. Value-added products	0.0	3.7	13.0	20.4	35.2	25.9	1.9	4.68	1.12
13. Risk management	0.0	3.7	11.1	24.1	37.0	22.2	1.9	4.64	1.08
14. Waste management	3.7	9.3	16.7	18.5	27.8	22.2	1.9	4.26	1.43
15. International markets	1.9	13.0	14.8	24.1	27.8	18.5	0.0	4.19	1.36
16. Entrepreneurship	3.7	11.1	25.9	31.5	18.5	9.3	0.0	3.78	1.25
17. Information technology	9.3	14.8	18.5	24.1	14.8	18.5	0.0	3.76	1.58
18. Community health	1.9	11.1	25.9	38.9	13.0	5.6	3.7	3.69	1.09
19. Consumer concerns	5.6	14.8	27.8	20.4	22.2	9.3	0.0	3.67	1.37
20. Urban sprawl	9.3	11.1	20.4	33.3	22.2	3.7	0.0	3.59	1.31
21. Child care	14.8	25.9	25.9	14.8	9.3	5.6	3.7	2.94	1.41
22. Youth and parenting issues	24.1	18.5	22.2	20.4	9.3	3.7	1.9	2.83	1.45

<sup>1</sup> Items are scaled from 1 to 6, no expectation to high expectation.  
MD = missing data.

**Table 7. Congressional Aides' Assessments of Various Characteristics of Land-Grant Universities and Their Components, Presented in Percentages (n=54)**

	----- Response Values -----							MD	Mean	SD	
*Reliable	22.2	50.0	9.3	11.1	0.0	0.0	0.0	Unreliable	7.4	5.90	.91
*Reputable	14.8	59.6	7.4	11.1	0.0	0.0	0.0	Disreputable	7.4	5.84	.84
*Knowledgeable	22.2	46.3	11.1	9.3	0.0	1.9	1.9	Ignorant	7.4	5.74	1.24
*Trustworthy	13.0	51.9	14.8	13.0	0.0	0.0	0.0	Untrustworthy	7.4	5.70	.89
**Useless	0.0	0.0	1.9	16.7	18.5	35.2	18.5	Valuable	9.3	5.57	1.08
**Non-responsive	0.0	0.0	1.9	22.2	18.5	31.5	18.5	Responsive	7.4	5.46	1.13
*Accountable	16.7	29.6	24.1	20.4	1.9	0.0	0.0	Careless	7.4	5.42	1.09
**Outdated	0.0	0.0	3.7	22.2	25.9	25.9	14.8	Current	7.4	5.28	1.13
**Inconsequential	0.0	3.7	1.9	22.2	24.1	25.9	14.8	Influential	7.4	5.20	1.26
*Familiar	14.8	27.8	18.5	16.7	11.1	1.9	1.9	Unfamiliar	7.4	5.06	1.46
**Biased	0.0	13.0	16.7	25.9	18.5	11.1	7.4	Unbiased	7.4	4.22	1.46

\* Response values scaled 7 to 1.  
\*\* Response values scaled 1 to 7.  
MD = missing data.

**Table 8. Congressional Aides' Self-Assessments of Leadership Style Characteristics (n=54)**

<b>Leadership Style Scale</b>	<b>Mean Score</b>	<b>SD</b>	<b>Mode</b>
Contingent reward	3.16	.88	Frequently, if not always
Idealized influence—attributed	3.04	.83	Fairly often
Inspirational motivation	3.04	.92	Fairly often
Individualized consideration	2.98	.88	Fairly often
Intellectual stimulation	2.97	.85	Fairly often
Idealized influence—behavior	2.87	1.07	Frequently, if not always
Management by exception—active	1.74	1.26	Sometimes
Laissez faire leadership	.67	.91	Not at all
Management by exception—passive	.63	.68	Not at all

\*Scale is 4 to 0, frequently used to not at all.

**Knowledge of and Attitudes Toward Land-Grant Universities.** More than three-quarters (77.8 percent) correctly indicated research, extension and teaching as the three-fold role of land-grant universities. About 83 percent of the respondents correctly identified the role of the Cooperative Extension service as educating the public and providing community access to information. About 85 percent of the respondents correctly identified the role of the Agricultural Experiment Station as conducting research on a variety of issues critical to agriculture and the nation. Two-thirds (66.7 percent) of the respondents correctly selected Cooperative State Research, Education, and Extension Service as the federal partner for land-grant universities.

Respondents were asked to indicate whether they communicated regularly with a contact individual from their state’s land-grant university. Well over one-half (64.8 percent) indicated they did so. Approximately one-fourth (25.9 percent) of the respondents said they did not communicate regularly with a contact, but did know whom to contact in the event that they wished to do so. About 5.6 percent said they did not communicate regularly with a contact and would not know whom to contact if they desired to do so.

### **Discussion and Conclusions**

Findings reported in this study suggest that Congressional aides rely on a mix of new and traditional communication channels for receiving policy information. The commonality shared by the top three channels – personal contacts, e-mail and Internet/World Wide Web – is that each allows users to seek information at any time and on any topic chosen. Access to information “on demand” appears to be very important to the Congressional aides who participated in this study. These individuals rely heavily on interpersonal networks developed with trusted and/or highly accessible sources. The next most-used tier of information channels included more traditional print media – newspapers, fact sheets and newsletters. Such media are “portable” and can easily be filed for future use. In addition, they offer more in-depth coverage of specialized topics than is possible through radio or television.

Regarding the information sources used most frequently by respondents, government and internal sources were shown to be most popular. However, it is important to note that all the sources with the exception of National Public Radio generated at least moderate levels of reported use, indicating that information-seeking respondents draw from an eclectic range of

sources. Interpersonal networks composed of agricultural and natural resource professionals, constituents and agribusiness contacts were the second most important tier of sources, ahead of such traditional sources as agricultural media, land-grant universities and mass media.

The results of this study offer both reassuring and potentially alarming news for the land-grant university system. For instance, respondents reported high levels of expectation that land-grant universities would serve as information sources for traditional food, agricultural and rural topics. On the other hand, respondents were decidedly less confident that land-grant universities could serve as information resources for such critical topics as youth and parenting issues, child care and urban sprawl.

Mixed results were also reported for respondents' assessments of various subjective characteristics of land-grant universities and their components. Land-grant universities tended to generate positive impressions on attributes associated with perceived credibility, including their reliability, reputation, perceived knowledge and trustworthiness. At the same time, more than one-fourth (29.7 percent) expressed concerns about perceived bias, while 14.9 percent rated land-grant universities as "unfamiliar." The findings regarding familiarity may be due to the fact that most respondents have been in their current positions for a relatively short period.

The USDA Science and Education Impact Fact Sheets received positive evaluations from the majority of respondents. It is important to note that very few of the respondents were familiar with the fact sheets.

The results from the leadership questions indicated that the transactional leadership style of contingent reward was the one most commonly used by the legislative aides. The transaction relates to the nature of legislative issues: "I help you on something, and in return, you help me." While this leadership style may reflect the nature of modern legislative work, it is different than the transformational leadership styles, which are often a goal at land-grant universities. Thus, this finding points to a disconnect between Congressional aides and land-grant faculty. The work-a-day worlds that shapes us and our leadership and communications styles are very different for these groups, and in bringing these groups together, these differences will need to be overcome.



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