What's the Impact with Congressional Aides? A Study of Communication Attitudes and Behaviors

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Abstract

This article reports findings from an evaluation study of the USDA Science and Education Impact Fact Sheet Program. The program was established in 1995 to communicate tangible effects of USDA-Extension programming to help maintain investment in land-grant and USDA research and educational programs. The single-page Impact Fact Sheets, which address such topics as agriculture and the environment, parenting, and waste management, have been distributed to stakeholders through mail and personal visits and distributed to states for their own use. Impact information is also maintained on the National Impact Database. This paper reports results from both qualitative and quantitative data collection methods among congressional aides in June 2000. Results revealed that the average respondent was a 27-year-old male who had served in his current position for one to three years. While the fact sheets included in the

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survey mailings and interviews received generally positive evaluations on the basis of content, writing style, and format, less than half of the respondents reported having seen or used the fact sheets prior to the study. Respondents also tended to rate land-grant universities as excellent information resources for agricultural topics, but significantly lower for less traditional topics such as child care and parenting. Respondents preferred to receive information from land-grant universities through personal contacts, e-mail and the World Wide Web. The results of the study are discussed in the context of improving the Impact Fact Sheet Program and enhancing the image and awareness of land-grant universities among congressional aides.

Introduction

Many private- and public-sector organizations have established or bolstered existing government relations programs in recent years. The primary goal of such programs is to create a positive awareness among legislators as to an organization's or industry's particular activities and contributions. A major challenge in this activity is that organizations compete with literally hundreds of other groups for a finite amount of attention by legislators and their congressional staffs, who conduct research and provide background to legislators on a variety of complex issues. 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).

The work of legislators has changed in the past 50 years. Congressional workload has nearly doubled since the 1950s (Davidson & Oleszek, 2000). Members spend more time in session, committee meetings, and floor votes and must consider literally thousands of complex bills and vote hundreds into law yearly (Paletz, 1999). As organizations seek to become more accountable for time and resources devoted to government relations activities, there is an increased need for

recent and reliable data on communication-related attitudes and behaviors of legislators and congressional aides. This situation is particularly true in the land-grant system, which has embraced public accountability since its inception (Richardson et al., 2000; Jackson & Smith, 1999).

This paper reports findings from evaluation research conducted to measure congressional aides' perceptions of the effectiveness of the USDA Science and Education Impact Fact Sheet Program. This program was established in 1995 to communicate tangible effects of USDA-Extension programming as a strategy to help maintain investment in land-grant and USDA research and educational programs. The fact sheets are one page in length (printed on both sides, in one color) and about 700 to 900 words long. They have been distributed to stakeholders through mail and personal visits and distributed to states for their own use. Impact information is also maintained on the National Impact Database. Fact sheet topics have included animal health, agriculture and the environment, parenting, waste management, low-resource client needs, and local problem-solving with land-grant expertise.

The Impact program attempts to better inform legislators, their staffs, and other groups interested in the work of land-grant universities and USDA about the activities of land-grant universities. In addition, it provides information for policy. In essence, it is an information subsidy, as it tries to increase consumption of its information by reducing or eliminating the information's cost, either in time or money invested in securing such information. In most situations, subsidy providers try to hide their tie to the information they provide, as their tie might limit use of the information (Gandy, 1982). However, in this case, land-grant universities and USDA seek to increase consumption of their information as well as enhance their visibility as credible, worthwhile information providers and knowledge generators.

From a supply standpoint, the program has been a success, as more and more states have submitted information to USDA for use in the fact sheets. In 1999, more than 3,300 submissions were made to the program. In 2000 and 2001, about 3,500 submissions were made each year From the demand side, or how the information is being used, little other than anecdotal information existed. No formal assessment or evaluation had been conducted since the program's inception.

Research

For this study, congressional aides were selected because of their ability to influence legislators' awareness of and attitudes toward various issues. Legislators' demanding schedules cause them to rely heavily on aides to help conduct research on important issues. Because they interact with many outside sources, congressional 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 & Oleszek, 2000). Despite the influential role congressional aides play in policy formation, little research has been conducted on their information-seeking preferences or behaviors. The primary objectives of this study were as follows:

1. To learn more about congressional aides' general communication attitudes and behaviors, including their source and channel preferences for receiving information;
2. To determine congressional aides' perceptions and use of the USDA Science and Education Impact Fact Sheets and companion database; and
3. To determine aides' awareness of and attitudes toward land-grant universities.

Methods

This study combined both qualitative and quantitative methods to evaluate the USDA Science and Education Impact Fact Sheet Program and to generate additional needed information about congressional aides and perceptions of land-grant universities. A preliminary step taken in the design of this study was a focus group with former congressional aides who recently worked in Washington, D.C. The focus group, held in Topeka, Kansas, in September 1999, allowed the researchers to evaluate data collection methods and field-test a focus group question route to be used later with the target group of congressional aides in Washington, D.C. The focus group also provided valuable information on items and phrasing to be used in the quantitative survey component of the study. Results from this initial focus group strongly indicated that the researchers would need to be both creative and flexible in their data collection methods for both qualitative and quantitative phases of the study. Nonresponse is a serious issue with congressional aides. Many congressional offices

have policies that prohibit personnel from participating in surveys; even for those without such policies, congressional aides are highly unlikely to complete questionnaires, which tend to get lost in the mail shuffle. Creating an environment to generate response would require a high level of personal contact and incentives, which was achieved in this study through the offering of meals. Another contribution of the preliminary focus group was the advice to provide study participants with a sample copy of the fact sheet in both the focus group and the survey.

Qualitative data collection. 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 for use in two focus group settings with congressional aides. The question route for the focus groups was field-tested prior to use and modified based on those results (Krueger, 1994). The first focus group was conducted in June 2000 with eight participants. The second focus group could not be conducted due to poor attendance. (The poor attendance demonstrates one of the difficulties in gaining response from congressional aides: On the evening when the focus group was to be conducted, the agriculture bill was being debated on the Senate floor, although it had been scheduled to be debated weeks earlier.) The researchers were unable to reschedule the focus group in the short time frame.

Quantitative data collection. A questionnaire was developed by the researchers to address the study objectives following guidelines recommended by Dillman (2000). A panel of persons knowledgeable about government relations, questionnaire design, and land-grant universities was used to establish face and content validity of the questionnaire (Fink, 1995). The surveys were completed by congressional aides during meals hosted by the researchers. Questionnaires were hand-delivered to offices of those who did 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 June 2000 with follow-up measures in July. Of the 171 congressional aides in the sample, 54 returned questionnaires for a 32 percent response rate. While the response rate was deemed adequate given the nature of

the target group and the purpose of the study, findings reported in this paper are generalized only to respondents and not the population.

Measurement of selected study variables. In the qualitative portion of the study, questions focused on congressional aides' general communication behaviors and attitudes as well as perceptions of the USDA Science and Education Impact Fact Sheets. The communications questions included the types of information kept or filed, use of the Internet, Web sites often bookmarked, sources of university information, use of research and extension services, and general improvements that could be made in communications with them. Questions about the fact sheets addressed their format, timing and method of delivery, content, and use of the companion database.

In the quantitative portion of the study, two sets of questions focused specifically on respondents' communication behaviors and attitudes. In the first of these items, respondents were asked to indicate their frequency of use for 13 common communication channels for receiving policy information. The channels were as follows: newspapers, magazines, newsletters, fact sheets, seminars/conferences, Internet/World Wide Web, e-mail, radio, television, CD-ROMs, personal contacts, computer databases, and technical reports. Possible responses ranged from "never use" (weighted 1) to "use frequently" (weighted 6), so that higher mean values would correspond to more frequent use. A separate, open-ended question was used to identify respondents' overall most useful channel for accessing information about their business or industry.

A second set of items addressed respondents' communication source preferences. Respondents were asked to indicate their likelihood of using 24 communication sources identified from the literature as information-gathering resources when researching agricultural policy topics. The 24 sources were as follows: private consultants or experts; Internet key word search; paid subscription or membership to Web services or news; free subscription or membership to Web services or news; agricultural media; mass media; paid subscription to print publications; free subscription to print publications; land-grant universities; agriculture and/or natural resource organizations; government agencies; communication organizations; USDA; Lexis-Nexis or similar Internet source; agribusiness contacts; constituents; congressional testimony; General

Accounting Office; Congressional Budget Office; Library of Congress; National Public Radio; House or Senate agriculture committee; Congressional Research Service; and other congressional aides.[1] Some of these sources are explained more in Table 1. Possible responses ranged from "not likely to use" (weighted 1) to "very likely to use" (weighted 6), so that higher mean values would correspond to greater likelihood of use. A separate, open-ended question was used to identify respondents' overall most useful source for accessing information about their business or industry.

Three sets of questions were used to measure respondents' attitudes toward various aspects of the USDA Science and Education Impact Fact Sheets and land-grant universities. In the first set, a series of Likert-type statements was used to tap respondents' opinions on both subjects. Response categories for the statements ranged from strongly agree (weighted 5) to strongly disagree (weighted 1). Negatively phrased statements were reverse-coded so that higher mean values corresponded with more favorable attitudes. This coding scheme assured that positive responses would generate higher mean values, while negative responses would generate lower mean values.

In the second series of items, respondents were asked to indicate their level of expectation of land-grant universities to serve as an information resource for 22 topics commonly addressed in research and education programs. The topics were as follows: agricultural policy, environmental issues, rural economic development, water quality, food safety, community health, child care, information technology, international markets, animal health, pest management, youth and parenting issues, biotechnology, value-added products, risk management, entrepreneurship, waste management, consumer concerns, urban sprawl, conservation practices, agricultural marketing, and nutrition. Possible responses ranged from "no expectation" (weighted 1) to "high expectation" (weighted 6).

In the third set of attitude items, respondents were asked to provide subjective assessments of land-grant universities and their components based on 11 selected characteristics. The characteristics were phrased as polar opposites in a semantic-differential-type scale as follows: reliable-unreliable, biased-unbiased, reputable-disreputable, trustworthy-untrustworthy, nonresponsive-responsive, accountable-careless, useless-valuable, familiar-unfamiliar, outdated-current,

Table 1. *Common Internal Sources of Information Used by Congressional Staff*

Source	Explanation
Other congressional staff	Through frequent interpersonal communication in formal and nonformal settings, congressional staff members often establish personal networks that can serve as vital channels for information and recommendations on particular legislative matters.
Committees and committee reports	Through committee hearings and reports, congressional members, interest group representatives, consumers, scholars, and other relevant experts can express their opinions regarding particular issues and pieces of legislation.
Congressional Research Service (CRS)	A unit of the Library of Congress, CRS is the oldest and most frequently used legislative support agency. Its expert staff analyzes pending issues, briefs congressional members and their aides, monitors issues, collects data and provides other research assistance.
General Accounting Office (GAO)	GAO focuses on ways to improve the effectiveness of government agencies and programs by eliminating wasteful and fraudulent practices. Its staff members evaluate programs, collect data, and provide written reports to congressional members that include findings and recommendations.
Congressional Budget Office (CBO)	CBO provides Congress with fiscal information pertaining to the congressional budget and legislative processes. Its staff publishes budget reports, provides estimates of government spending, offers economic forecasts, and estimates cost of proposed legislation. CBO members often testify before committees.

Sources: Congressional Quarterly, 1998; Wells, 1996; Davidson & Oleszek, 2000; Fox & Hammond, 1977; Paletz, 1999.

inconsequential-influential, and knowledgeable-ignorant. Items were scaled from 1 to 7 so that higher values corresponded to favorable assessments, while lower values corresponded to unfavorable assessments. Several items were reverse-coded during data analysis to conform to this scheme. "Neutral," or midpoint, responses received a value of 4.

Four multiple-choice-type questions were included in the research to gain insights into respondents' knowledge of the land-grant system. For each question, three options were presented—one correct and two incorrect but somewhat plausible options. The first question asked respondents to choose a description that best captured the three-fold role of a land-grant university. In the second question, respondents were asked to pick the statement that they felt best defined the role of the Cooperative Extension Service. The third question queried respondents about the role of the Agricultural Experiment Station. Finally, respondents were asked to identify the name of the federal partner for land-grant universities.

Item analysis was used to assess reliability for selected items in the instrument. The resulting alpha coefficients ranged from .69 to .94 and were judged adequate (Mueller, 1986). A number of remaining questions focused on demographic and occupational characteristics of the respondents. Results for these and other study variables are provided in the "Findings" section of this paper.

Data Analysis. Focus group responses were coded by themes as they emerged from the data, a coding concept from grounded theory methodology (Glaser & Strauss, 1967). Keywords, phrases, and concepts first were identified among the data. The researchers then formed themes. Following appropriate methods of analysis for qualitative data, a clustered summary table was developed and is presented in this paper (Miles & Huberman, 1994). Quantitative data were analyzed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarize respondents' demographic and attitudinal characteristics.

Findings

Qualitative Findings

Qualitative data on participants' general communication behaviors and attitudes is presented in Table 2. The partici-

Table 2. *Congressional Aides' Focus Group Responses Regarding General Communications Attitudes and Behaviors*

Topic	Comments	Quote
Types of information kept or filed	• Fact sheets • Information that could be understood by layperson • Information with current or future relevance • Summaries of information	"Things that are difficult or complex – if there's a good summary of it, it can be used for another purpose."
Use of Internet	• Congressional Research Service • Listservs • Search Web by topic • Land-grants with policy websites	"I use CRS a lot."
Bookmarked sites	• Texas A&M Policy Center • Groups that lobby – Farm Bureau, Corn Growers, etc.	

Table 2. *Continued*

Topic	Comments	Quote
Communication sources for university information	• Government relations people on campus • Personal contacts • Home state and other	"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	• Education and Research, unbiased • Rural oriented information • Practical • Development of technology/consumer attitudes toward technology • Farm program analyses	"Only if it's more rural oriented; not so much consumer; practical, the approach in writing, presentation information."
How to improve communications	• Increase interaction between faculty and congressional aides/legislators • Establish relationships • Provide updates on programs and information on successes	"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 [a] technical format." "It sometimes seems we only see the land grants at appropriations time." "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."

pants indicated that they received a great deal of information daily. The information they kept or filed was generally written in a way that could be easily understood by laypersons and was also perceived to have relevance for current or future use. The respondents appreciated brevity and summarization. All of them had used the Internet or had an assistant search for information on the Internet.

The most cited information resource was the Congressional Research Service. The participants also indicated receiving information via listservs, from policy websites at land-grant institutions, and from farm groups that lobby. They 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-grant universities 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 university government relations staff facilitate more interaction between the congressional 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. One participant noted that he felt he saw land-grant universities only for appropriations and did not hear about the status of projects or of the work being done. Table 2 presents these data in more detail.

When asked about the Science and Education Impact Fact Sheets, none of the congressional aides reported seeing them prior to the focus group. In terms of perceived usefulness, the participants generally liked the format, but recommended that a contact name and number be provided. The sheets provide a good overview of topics, but if someone needs more information, which would be important for policy issues, he or she would need the contact information to follow up. State-specific information was of some interest to the participants, especially if it complemented the national information. Some liked the

paper format, while others preferred an electronic version. They noted that the electronic version would need a consistent subject line to aid in recognition, and it might be helpful if a hyperlink were provided for more detail. There was concern that the electronic capabilities of the offices might not be suited for all electronic distribution.

The participants also indicated that it would be useful if distribution of the fact sheets followed current-event topics in the news. However, they did not think this was always necessary. While the participants acknowledged that land-grant universities provide information in a great diversity of areas, they felt that the agriculture aide should generally receive the sheets. A few noted that the aide working on environmental issues might be appropriate. In general, though, the fact sheets would be circulated to other aides only as necessary. The consensus was that research and extension information was the purview of the agricultural congressional aide. The participants were asked whether they would be interested in using a database to access the Impact information. They indicated such a database could be very useful if it were user-friendly and provided more detailed information if needed.

Quantitative Findings

Demographic information collected from the respondents showed two thirds (66.7 percent) of the respondents were male. Ages of respondents varied widely, from 20 to 65 with a median age of 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 most common areas of study for bachelor's degrees were political science, agricultural economics/agribusiness, and other social sciences. Most of the master's degrees were also in social science areas.

Titles for most of the respondents were congressional or legislative assistant/aide. To a lesser degree, the title of legislative director was provided. A few worked for the House agriculture committee and were not associated specifically with one representative or senator. 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 respondents.

How and Where Respondents Work. Respondents indicated a wide range of hours devoted to legislative research per week, from 2 to 45, with a mean of 16.3. However, the standard deviation of 10.3 indicates a great deal of variance among responses. The modal response, 20 hours, was selected by about 22 percent of the respondents.

Respondents were asked to indicate the primary location of their work. 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 (35.2 percent) of the respondents indicated being in their current position for 1 year.

Respondents were asked whether they had access at work to a personal computer, the Internet, electronic mail and CD-ROM. All respondents reported having access to a personal computer, the Internet, and electronic mail. About 85 percent reported access to CD-ROM. More than one fourth (27.8 percent) of the respondents indicated sharing access to some of this equipment.

Nearly two thirds (64.8 percent) of the respondents 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. Ten 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.

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

Channel	Frequency of Use: Never		Occasionally		Frequently		MD	Mean[1]	SD
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

[1] Items are scaled from 1 to 6, never use to frequently use.
MD = missing data.

Nearly 45 percent of the respondents indicated that the Internet/World Wide Web was the overall most useful channel for them in accessing information about their business or industry. Personal contacts were mentioned by just more than 35 percent. Electronic mail was a distant third, mentioned by just over 5 percent.

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, and USDA (Table 4). General mass media and communication organizations were the least likely to be used.

More than one fourth (27.8 percent) of the respondents indicated the Congressional Research Service was the single most useful source for accessing information about their business or industry. A distant second was the House/Senate Agriculture Committee, which was mentioned by about 9 percent of the respondents. Two sources–private consultants/ experts and other congressional aides–were tied for the third most useful source, each being mentioned by about 7 percent of the respondents.

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. About 40 percent indicated that had seen the fact sheets. More than half of the respondents who reported having seen the fact sheets (20 percent of the total) indicated that they had also used them 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, although it is important to note that relatively few had seen the fact sheets prior to the study. More than three fourths (77.8 percent) of the respondents felt that the fact 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 6). More than three fourths (77.8 percent) of the respondents indicated they would access Impact information if available in a user-friendly Web site, while almost two thirds (63 percent) said they would prefer to access Impact information by computer.

Relative to perceptions about land-grant universities, more than three fourths (77.8 percent) of the respondents indicated that these institutions were valuable sources of information. About two thirds (66.7 percent) of the respondents indicated that USDA was an excellent source for land-grant university research.

Table 6 also 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 agricultural policy, biotechnology, agricultural marketing, food safety, and pest management. The lowest levels of expectation were indicated for child care and 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 4.22 to 5.90 on the 7-point scale, indicating slightly to moderately 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.

Knowledge of and Attitudes Toward Land-Grant Universities. Findings show that a majority of respondents had a basic understanding of the mission of land-grant universities and their components. 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 the Cooperative

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

Source	Not Likely to Use		Moderately Likely to Use		Very Likely to Use		MD	Mean[1]	SD
1. Congressional Research Service	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

Table 4. *Continued*

Source	Not Likely to Use		Moderately Likely to Use		Very Likely to Use		MD	Mean[1]	SD
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 pubs.	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 pubs.	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	1.7
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

[1] Items scaled 1 to 6, not likely to very likely.
MD = missing data.

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

Statement	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	MD	Mean	SD
Content and Usefulness of Fact Sheets								
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. I would file or save the Impact Fact sheets.*	11.1	46.3	24.1	7.4	3.7	7.4	3.58	.95
e. 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
Format and Style of Fact Sheets								
f. 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
g. 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
h. The Impact Fact Sheets are too short for me.**	1.9	5.6	27.8	48.1	11.1	5.6	3.65	.84
i. The current format of Impact Fact Sheets is satisfactory.*	0.0	63.0	24.1	5.6	0.0	7.4	3.62	.60

Table 5. *Continued*

Statement	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	MD	Mean	SD
Receiving Impact Information								
j. 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
k. 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
l. I would prefer to access Impact info by computer.*	13.0	50.0	14.8	14.8	1.9	5.6	3.61	.98
Land-Grant Universities								
m. Land-grant universities are valuable sources of information.*	31.5	46.3	13.0	1.9	0.0	7.4	4.16	.74
n. 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

* Items are scaled 5 to 1, strongly agree to strongly disagree.
** Items are scaled 1 to 5, strongly agree to strongly disagree.
MD = missing data.

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

	Level of Expectation								
	None		Moderate			High	MD	Mean[1]	SD
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

[1] 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.

State Research, Education, and Extension Service as the federal partner for land-grant universities.

Discussion

Findings from this study show 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 initiate information-seeking 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. These findings underscore the importance of the land-grant university system maintaining a multidimensional communications program that uses both new and traditional media to reach legislative audiences. Also essential is the long-term cultivation of interpersonal relationships with key legislative contacts. Individuals who aspire to build such relationships must be perceived as being trustworthy, knowledgeable, and accessible.

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. It is highly likely that respondents are unaware of the wide range of university research and outreach programs offered in these areas. Based on these findings, increased promotion of these and other nontraditional activities seems warranted. While nontraditional programs need promotion, it is important to note that university, research, or extension information is usually routed through the agricultural or environmental aide, according to these findings. Thus, it is important to recognize the agriculture or environmental aide as an important conduit in the system even if the material is more strongly related to other areas.

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 bias may be due to respondents' recognition that private grants fund a significant amount of research in most land-grant universities today. Such research may be viewed as having an intrinsic bias regardless of its quality. In addition, land-grant universities are strongly associated with rural and agricultural topics and may be considered biased toward them. Meanwhile, the findings regarding familiarity may be due to the fact that most respondents have been in their current positions for a relatively short period. Land-grant universities should consider developing a communication mechanism to inform new congressional staff of their mission, purpose, and programs. Further, the congressional aides indicated they wished to have more opportunities for interaction with university faculty, especially if results of government-funded studies are presented by the faculty.

The USDA Science and Education Impact Fact Sheets received positive evaluations from the majority of respondents. More than half indicated that the fact sheets provided both

credible and relevant information and that they would file or save the fact sheets. A majority of respondents also rated the fact sheets as easy to understand, well organized, and written to an appropriate length. Timeliness was judged to be one of the most important factors in making the fact sheets useful. More than three fourths of the respondents indicated they would be willing to access Impact information electronically if available through a user-friendly Web site. It is important to note that respondents' perceptions of the fact sheets were based on the sample provided by the researchers during data collection; very few of the respondents were familiar with the fact sheets prior to the study.

Conclusions

Collective results from this study suggest a number of current strengths in the execution and delivery of the USDA Science and Education Impact Fact Sheet Program. The fact sheets received generally positive evaluations for their organization, readability, and perceived usefulness. While these positive features provide much to build on, significant issues need to be addressed if the program is to reach its full potential as a communication vehicle for congressional aides. Increasing aides' awareness of the fact sheets is essential to the program's success. Two factors complicating this goal are the rapid turnover of aides and the massive volume of information received by aides on a daily basis.

Based on the results of this study, efforts to build interpersonal relationships with and communication networks among congressional aides should be increased. While this initiative will require substantial effort and resources, the expense would be justified if it resulted in improved government relations. Also, other channels that reach congressional aides should be identified for distribution of the information. For example, aides appear to have strong contacts with government relations professionals at land-grant universities. Perhaps these professionals could extend the Impact work.

Another conclusion drawn from this research is that data collection from congressional legislative aides is very difficult. Ethical issues are a potential concern because research may be viewed by some as lobbying. The researchers in this study were surprised to find that these two very different functions could be viewed as similar. In addition, achieving an accept-

able response rate is particularly difficult, which may make data collection from congressional aides less feasible or impossible for many organizations. A more troubling challenge associated with data collection from congressional aides stems from the recent criminal mailings of anthrax to legislative offices and the terrorist attacks of September 11, 2001. Security measures enacted in the wake of these events will create even greater difficulties for on-site and mail survey data collection involving legislators and their staffs.

This also indicates that personal contacts and electronic accessibility become even more important channels through which to provide information. Because of the rapid nature of policy making and perhaps the relative lack of experience and/or expertise among the legislative aides, congressional staffs rely upon others to provide information and subject matter expertise for policy making. Lobbyists and others are viewed by legislative aides as important sources of information. If land-grant universities are not readily providing information, someone else will fill the void, likely without research-based information. This does little to improve the policy or the standing of land-grant universities. Agricultural and applied communicators can play an important role in helping land-grant universities enhance legislative research expertise in this new era.

Endnote

[1] The 24 sources included several internal sources of information such as other congressional staff, committees, and three professionally staffed support agencies that are often called upon by senators and representatives to undertake special studies and long-term projects (Wells, 1996; Davidson & Oleszek, 2000). Applied communicators might well be less familiar with these sources than with the variety of nonlegislative information sources used widely in conventional communications work. Table 1 provides more detail on these five internal sources.

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