

Responsive Management



COASTAL COMMUNITY NEEDS ASSESSMENT AND MARKET INVENTORY FOR THE SAPELO ISLAND NATIONAL ESTUARINE RESEARCH RESERVE AND THE GEORGIA COASTAL MANAGEMENT PROGRAM

**Conducted for the Sapelo Island National Estuarine Research Reserve
and the Georgia Coastal Management Program**

by Responsive Management

2007

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Responsive Management National Office

Mark Damian Duda, Executive Director
Tom Beppler, Research Associate
Steven J. Bissell, Ph.D., Qualitative Research Associate
Andrea Criscione, Research Associate
Andrew Harrison, Research Associate
Brad Hepler, Ph.D., Research Associate
James B. Herrick, Ph.D., Research Associate
Martin Jones, Research Associate
Carol L. Schilli, Research Associate
Tim Winegord, Survey Center Manager
Alison Lanier, Business Manager

130 Franklin Street
Harrisonburg, VA 22801
Phone: 540/432-1888 Fax: 540/432-1892
E-mail: mark@responsivemanagement.com
www.responsivemanagement.com

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EXECUTIVE SUMMARY

This study was conducted for the Sapelo Island National Estuarine Research Reserve (hereinafter referred to as SINERR) and the Georgia Coastal Management Program (GCMP) to assess existing programs related to coastal training and to determine current and desired levels of coastal training among decision-makers in Georgia. The assessment was designed to identify any overlaps among various coastal training efforts; the full range of coastal issues that may need to be addressed through training and information but are not currently being adequately addressed; the professional decision-making groups that should be targeted for coastal training, including those not currently being adequately served; and the best strategies, technologies, and formats to educate and inform the decision-making groups, including a prioritization of the groups that most need specific additional information. The study entailed two multi-modal surveys of coastal training decision-makers and organizations and institutions that participate in or offer coastal training. The surveys were administered through a combination of Web-based, e-mail, mail, and telephone questionnaires designed to fully assess the specific needs for coastal training efforts.

Responsive Management worked in partnership with the SINERR and the GCMP to design the survey instruments. Two separate surveys were administered: one to decision-makers in 11 coastal counties in Georgia (Brantley, Bryan, Camden, Charlton, Chatham, Effingham, Glynn, Liberty, Long, McIntosh, and Wayne) to determine their priorities with regard to coastal training topics, and another to training providers to inventory available coastal training programs. For the purposes of the study, decision-makers were broadly defined as people who, in a professional or volunteer capacity, make decisions affecting the health of coastal resources.

Responsive Management designed the surveys based on discussions with the SINERR and the GCMP, as well as on background research conducted by Responsive Management's research associates, who have extensive experience with training inventories and needs assessments for natural resource and environmental agencies and organizations. The surveys were administered by Web, e-mail, mail, and telephone. Data were collected from December 2006 to July 2007.

Responsive Management distributed the Web-based needs assessment using e-mail addresses from the 2006 Coastal Georgia Regional Development Center Directory. Potential respondents were provided a link to the online survey, along with a cover letter explaining the study and requesting their participation. Follow-up e-mails were distributed and telephone calls were made to remind respondents of the study. Responsive Management arranged telephone interviews with respondents who wished to complete a survey by telephone. Booklet-style hard copies of the needs assessment survey were also mailed to potential respondents at the addresses either listed in the Directory or otherwise indicated by the respondent. To publicize the survey and to encourage participation, Responsive Management worked with the SINERR and the GCMP to develop a news release on the coastal training study for placement in various publications and newspapers in the 11 coastal counties in Georgia. Responsive Management also worked with Web support personnel from the SINERR, the Georgia Department of Natural Resources, and the Coastal Georgia Regional Development Center to include links to the Web-based needs assessment on the Web sites of each of the aforementioned organizations. Follow-up telephone calls were made to potential respondents to encourage participation before the survey data collection period ended.

Responsive Management distributed the Web-based market inventory survey to organizations identified as coastal training providers or thought to be knowledgeable about coastal training. Coastal training providers were identified through extensive background research. Coastal training organizations were contacted via e-mail and/or telephone, based on contact information listed on organizations' Web sites; as with the needs assessment, potential respondents were provided a cover letter detailing the study, a link to the Web survey, and contact information for Responsive Management. Additionally, Responsive Management distributed booklet-style hard copies to training providers to encourage participation. Follow-up telephone calls were made to potential respondents to encourage participation before the survey data collection period ended.

Responsive Management obtained a total of 115 completed questionnaires from coastal decision-makers in Georgia (for the needs assessment) and 33 completed questionnaires from coastal training providers (for the market inventory). A central data management site at the Responsive Management office allowed for rigorous quality control over the data collection. Responsive

Management maintains its own in-house telephone interviewing and data entry facilities, staffed by professionals with experience conducting studies regarding natural resources.

GENERAL RECOMMENDATIONS

- Overall interest in coastal training is high. This suggests that encouraging attendance is a matter of increasing opportunities and facilitating attendance rather than increasing interest. The data indicate that there is an untapped “market,” as more than half of decision-makers in the survey indicated that they had not received coastal training in the year previous to the survey.
- Decision-makers more often disagree than agree that there are enough coastal training providers that offer training to decision-makers. This further supports the finding that there is a high demand for coastal training. Additionally, when asked about the primary inhibiting factors preventing “change and advancement” in their community, decision-makers commonly say lack of training and/or expertise.
- Because the majority of decision-makers do *not* participate in coastal training annually, but do so sporadically, attendance of coastal training may be enhanced through promoting future coastal training opportunities at each training event/session that is conducted. This may help cause sporadic attendees to become annual attendees. In addition, many decision-makers attend only one event/session per year, so promotion of future events/sessions may also prompt these decision-makers to attend more than once a year.
- Programs that include making technology more available to decision-makers should be considered. The data found that a majority of decision-makers (57%) rate the availability of technology for coastal management as less than “good” (on the scale running from “excellent” to “very poor”).
- Lack of cooperation between agencies and/or organizations was commonly indicated as being a primary inhibiting factor preventing “change and advancement” in decision-makers’ community, suggesting a need for programs that facilitate cooperation between agencies and/or organizations.

- There is a disparity between decision-makers' views on the quality of the environment in their communities and the corresponding views of coastal resource organization respondents: whereas decision-makers are more likely to believe that the quality of the environment in their coastal areas has remained the same or improved in the past two years (55% say it has stayed the same, while 25% say it has improved), the overwhelming majority of coastal resource organization respondents feel that the quality of the environment has worsened (73% say it has gotten worse). When planning future coastal resource training and information initiatives, this finding should be taken into account (as well as similar disparities in awareness and knowledge levels of coastal issues); such differences in perceptions suggests the potential for decision-making groups and audiences to ignore or treat lightly the training and information expertise of groups they may view as “alarmist” or characterized by overreaction.

- Use the data in this report as an ongoing resource. You may see things in the data beyond the recommendations made by the researchers, particularly because you are close to the issues, both geographically and thematically. Any decision about coastal training should be made with these data in mind, even if not specifically covered in the recommendations presented herein.

LOGISTICS OF TRAINING SESSIONS

- Decision-makers indicate that the winter is the optimal time for coastal training—the leading season by far. Therefore, realize that coastal training held in the spring or fall, or especially the summer, may be less convenient than coastal training held in the winter.

- Weekdays are overwhelmingly preferred for coastal training over weekends.

- Decision-makers showed a preference for having coastal training during (or starting) in the morning rather than the afternoon.

- Half-day to day-long sessions are the optimal length of coastal training. Almost no decision-makers have a preference for sessions longer than a day, the latter which would also increase the cost of attending, likely prohibitively so.
- A high percentage of decision-makers said that they prefer to be notified about coastal training via direct mail or e-mail. Considering the latter's cost effectiveness (particularly relative to direct mail), this medium should be used as much as possible.
- Overwhelmingly, decision-makers prefer on-line registration (relative to mail-in or telephone registration). Given this finding, participation in coastal training will be hampered if this format for registering is unavailable.

COASTAL TRAINING TOPICS

- The data on the topics that are most in demand, as well as the comparison of what is available versus what is in demand, will prove extremely useful in making decisions regarding the topics that should be offered in coastal training.
- In making decisions about content of coastal training, as well as outreach publicizing coastal training that is being offered, keep in mind that the data showed low awareness levels of the programs listed below. If these programs are not being fully utilized, their outreach components should be enhanced.
 - Federal Consistency Review
 - Coastal Ark
 - Coastal Nonpoint Source (6217) Program
 - Nonpoint Education for Municipal Officials
 - Sea Grant Coastal Communities and Economies Program
- In addition to the programs listed above, there was a low level of familiarity with Georgia's 303(d) list. (The list indicates streams/rivers in Georgia that are declared impaired because they failed water quality standards—either federal water quality standards or state standards that are dependent on the water body's designated use, e.g., fishing, swimming.)

- The comparisons of topics offered versus the topics in demand suggest that the following topics have greater demand than is presently being met.
- Water quantity
 - Coastal construction
 - Land use planning
 - Wastewater management
 - Zoning
 - Sustainable building
 - Docks and piers
 - Boat/marina management
 - Renewable energy
 - Low impact development
 - Coastal community development
 - The economic aspects of land use
 - Beach nourishment
 - Erosion and sediment control
- Another set of questions asked decision-makers to identify areas in which they have a high need for training as well as the areas in which they have received a high level of training. They indicated that they need training in the topics listed below. For some of the topics, they are currently receiving or have received a high level of training; for other topics, they have *not* received much training, despite indicating a need for it. This is noted in parentheses in the list below.
- Water quantity (high demand, good supply)
 - Land use planning (high demand, good supply)
 - Zoning (high demand, good supply)
 - Ordinances and regulations (high demand, good supply)
 - Stormwater management (high demand, inadequate supply)
 - Water quality (high demand, inadequate supply)
 - Coastal community development (high demand, inadequate supply)

- Note that the findings of the needs assessment includes a listing of the aspects of various topics that were important for decision-makers' communities, which should be used as a resource in decisions regarding topics for coastal training. For instance, this analysis found that within the broad field of stormwater, the aspects that are of high importance to communities include stormwater's effects on marsh grasses, the implementation of stormwater management plans, and the setting of regulations concerning stormwater.

COASTAL TRAINING FORMATS

- A comparison of the types of formats that providers offer and the types of formats that decision-makers want reveals that several types of formats have a demand that is not being met. These are listed below. Unfortunately, many of these formats are quite labor-intensive, limiting providers' ability to offer these types. Nonetheless, use of these formats should be considered, when and where possible, because they are the formats that are not only considered highly effective but that are not currently being widely offered.
 - Individual consultations
 - Certification programs
 - Continuing education classes
 - Demonstrations
 - One-on-one instruction
 - Hands-on activities
 - Web-based programs
 - Case studies
- A low percentage of decision-makers rated the Internet as effective for providing coastal training/information. Their reasons should be further explored, particularly in light of the fact that the Web can be very effective for some types of training. A good feature of the Web is that it allows users to access the training/informational materials at their own convenience. The low rating among decision-makers of the effectiveness of the Web may be caused by a lack of ability in using Web-based applications or data sources. Alternately, it may be a simple lack of awareness of which sites provide the needed training or information. Nonetheless, the data suggest that decision-makers' use of the Web should be enhanced.

- A related finding is that distance learning programs were not highly rated as being effective for learning about coastal resource issues. Again, given the convenience of distance learning programs to the user—they usually can learn at their own pace and schedule—their low rating in effectiveness should be further examined.
- As previously mentioned, the data in this report should be used as an ongoing resource. Refer to the section on the comparison of formats offered and formats desired when making decisions about the format(s) of upcoming training. Attempts should be made to incorporate formats that are currently not widely offered into future coastal training offerings.

GROUPS TO BE TARGETED FOR COASTAL TRAINING

- A comparison was made of *decision-makers'* perceptions of demand for coastal training among various groups versus *providers'* perceptions of demand for coastal training among various groups. Several groups stand out as having much unmet demand for coastal training, listed below. Interestingly, *elected* local officials are largely absent from this list, but other agency personnel are included. Many elected officials depend on agency personnel to inform them about issues, so any information and training given to agency personnel may be transmitted to elected officials via this “conduit.” (Planners and engineers were the top groups from which decision-makers said that they get information.)
- Estuarine researchers
 - Wetland scientists
 - Fisheries and wildlife personnel
 - Environmental protection agency personnel
 - Environmental educators
 - Soil and water conservation districts
 - Universities
 - Marine resource agency personnel
 - Environmental consultants
 - Coastal regulators

- A comparison was made of groups that are currently targeted for coastal training versus the groups that decision-makers perceive as needing coastal training. In particular, the following groups have much apparent unmet need.
 - Soil and water conservation districts
 - City planners
 - County commissioners
 - Building/development associations
 - City engineers
 - City managers
 - Planning commission members
 - Environmental consultants
 - Code enforcement officers
 - Environmental health officials

- Refer to the section in this report on the comparison of target groups that receive training versus the target groups that are in need of training when making decisions about which groups to target in upcoming training. Obviously, the topic will largely determine which group should receive any particular training, but otherwise attempts should be made to serve these groups that are perceived as needing coastal training.

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INTRODUCTION AND METHODOLOGY

This study was conducted for the Sapelo Island National Estuarine Research Reserve (hereinafter referred to as SINERR) and the Georgia Coastal Management Program (GCMP) to assess existing programs related to coastal training and to determine current and desired levels of coastal training among decision-makers in Georgia. The assessment was designed to identify any overlaps among various coastal training efforts; the full range of coastal issues that may need to be addressed through training and information but are not currently being adequately addressed; the professional decision-making groups that should be targeted for coastal training, including those not currently being adequately served; and the best strategies, technologies, and formats to educate and inform the decision-making groups, including a prioritization of the groups that most need specific additional information. The study entailed two multi-modal surveys of coastal training decision-makers and organizations and institutions that participate in or offer coastal training. The surveys were administered through a combination of Web-based, e-mail, mail, and telephone questionnaires designed to fully assess the specific needs for coastal training efforts. Specific aspects of the research methodology are discussed below.

Responsive Management worked in partnership with the SINERR and the GCMP to design the survey instruments. Two separate surveys were administered: one to decision-makers in 11 coastal counties in Georgia (Brantley, Bryan, Camden, Charlton, Chatham, Effingham, Glynn, Liberty, Long, McIntosh, and Wayne) to determine their priorities with regard to coastal training topics, and another to training providers to inventory available coastal training programs. For the purposes of the study, decision-makers were broadly defined as people who, in a professional or volunteer capacity, make decisions affecting the health of coastal resources.

Responsive Management designed the surveys based on discussions with the SINERR and the GCMP, as well as on background research conducted by Responsive Management's research associates, who have extensive experience with training inventories and needs assessments for natural resource and environmental agencies and organizations. This design process ensured that the survey instruments met the exact needs of the study. Responsive Management pre-tested the surveys to ensure logical flow and clear wording. The surveys were administered by Web, e-mail, mail, and telephone. Data were collected from December 2006 to July 2007.

Responsive Management distributed the Web-based needs assessment using e-mail addresses from the 2006 Coastal Georgia Regional Development Center Directory. Potential respondents (including elected officials and various staff members) were provided a link to the online survey, along with a cover letter explaining the study and requesting their participation. Follow-up e-mails were distributed and telephone calls were made to remind respondents of the study and to determine whether the respondent had received the information regarding the needs assessment. Responsive Management arranged telephone interviews with respondents who wished to complete a survey by telephone.

Following the distribution of links to the Web-based survey, booklet-style hard copies of the needs assessment survey were mailed to potential respondents at the addresses either listed in the Directory or otherwise indicated by the respondent. The mailings included a cover letter on Responsive Management letterhead and a self-addressed postage-paid envelope for conveniently returning the completed survey. The cover letter also detailed the other methods for returning surveys (Responsive Management's telephone and facsimile numbers, business address, and the link to the Web survey for online submissions). To publicize the survey and to encourage participation, Responsive Management worked with the SINERR and the GCMP to develop a news release on the coastal training study for placement in various publications and newspapers in the 11 coastal counties in Georgia; survey submissions following publication of the news release were screened for eligibility in the study. Responsive Management also worked with Web support personnel from the SINERR, the Georgia Department of Natural Resources, and the Coastal Georgia Regional Development Center to include links to the Web-based needs assessment on the Web sites of each of the aforementioned organizations. Follow-up telephone calls were made to potential respondents to encourage participation before the survey data collection period ended.

Responsive Management distributed the Web-based market inventory survey to organizations identified as coastal training providers or thought to be knowledgeable about coastal training. Coastal training providers were identified through extensive background research conducted on organizations specializing in water resources, natural habitat, and coastal development issues, and other areas relevant to the study. Coastal training organizations were contacted via e-mail

and/or telephone, based on contact information listed on organizations' Web sites; as with the needs assessment, potential respondents were provided a cover letter detailing the study, a link to the Web survey, and contact information for Responsive Management. Additionally, Responsive Management distributed booklet-style hard copies to training providers to encourage participation. Follow-up telephone calls were made to potential respondents to encourage participation before the survey data collection period ended.

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The software used for Web-based data collection was FormRouter. All survey data were processed and analyzed using SPSS/11.5 for Windows software and proprietary software developed by Responsive Management. Data processing and analysis included coding, cleaning of data, preparation of straight tabulations, computer processing with cross tabulations, and preparation of study printouts. Responsive Management created graphs to correspond with each question for easy review and visual display of survey data. In those cases in which cross-tabulations were run, those tabulations were also graphed.

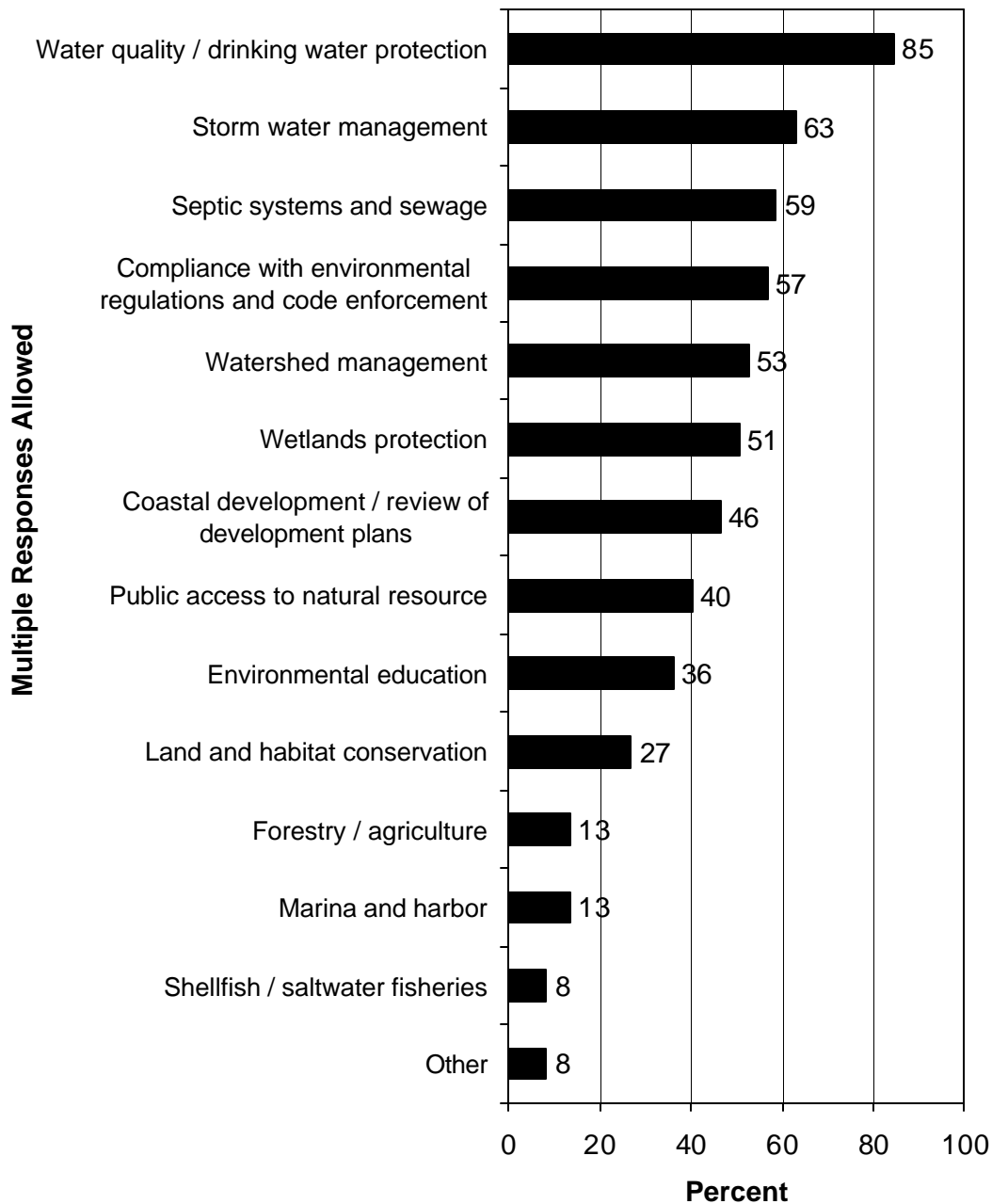
NEEDS ASSESSMENT SURVEY RESULTS

The following section discusses the results of the needs assessment that was administered to coastal decision-makers. This survey was used to determine decision-makers' priorities with regard to coastal resource professional development, information, and training.

ISSUES ON WHICH INDIVIDUAL/ORGANIZATION FOCUSES

- The survey asked decision-makers about the coastal management resource issues on which they and their organizations focus. The most common issue on which decision-makers and their organizations focus is water quality/drinking water protection (85%), followed by stormwater management (63%).
 - Other top issues on which a majority of individuals and organizations focus include septic systems and sewage (59%), compliance with environmental regulations and code enforcement (57%), watershed management (53%), and wetlands protection (51%).
 - Very few decision-makers and their organizations focus on shellfish/saltwater fisheries (8%), marina and harbor issues (13%), and forestry/agriculture (13%).

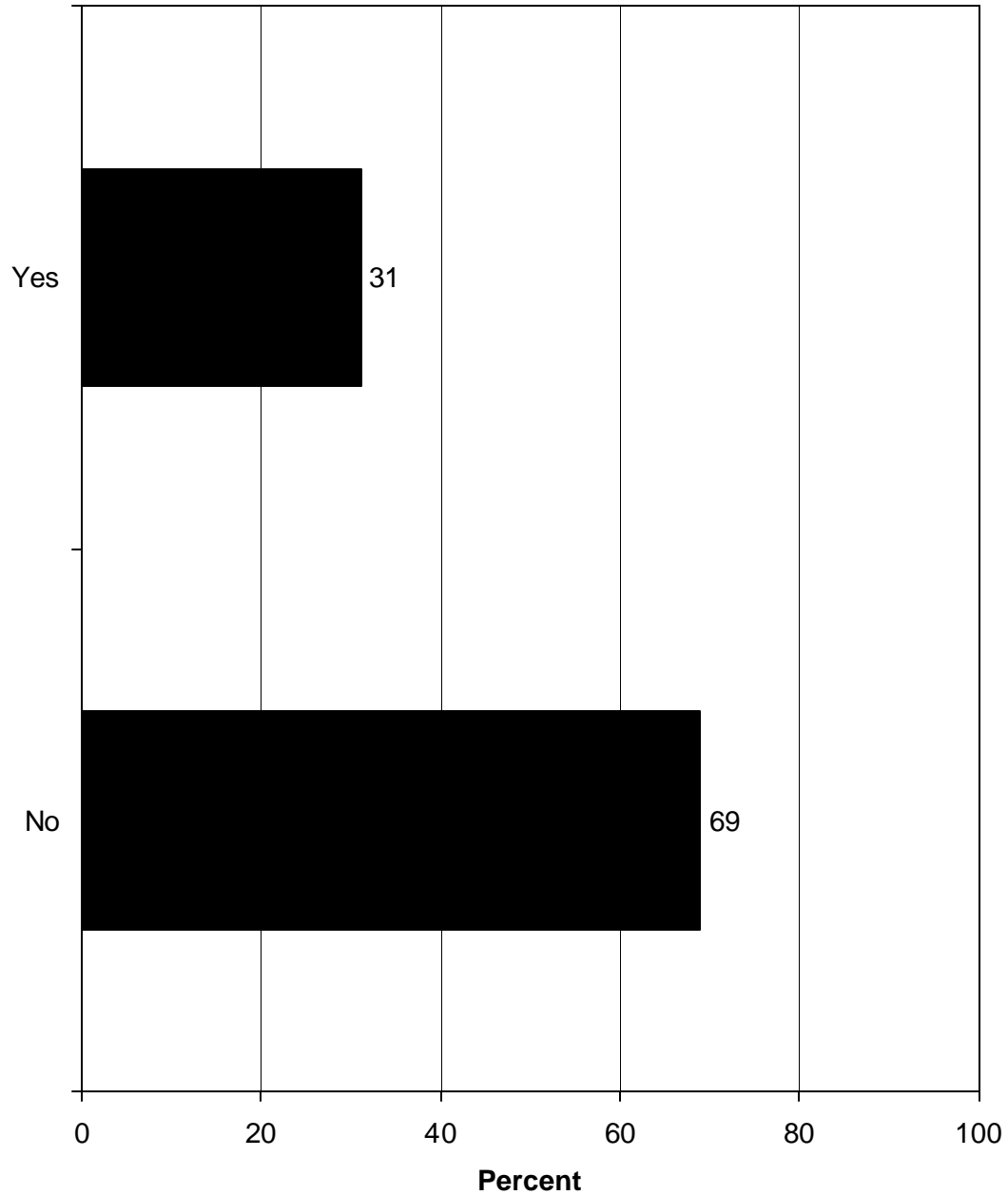
Which of the following coastal management resource issues do you/does your organization focus on? (Needs Assessment)



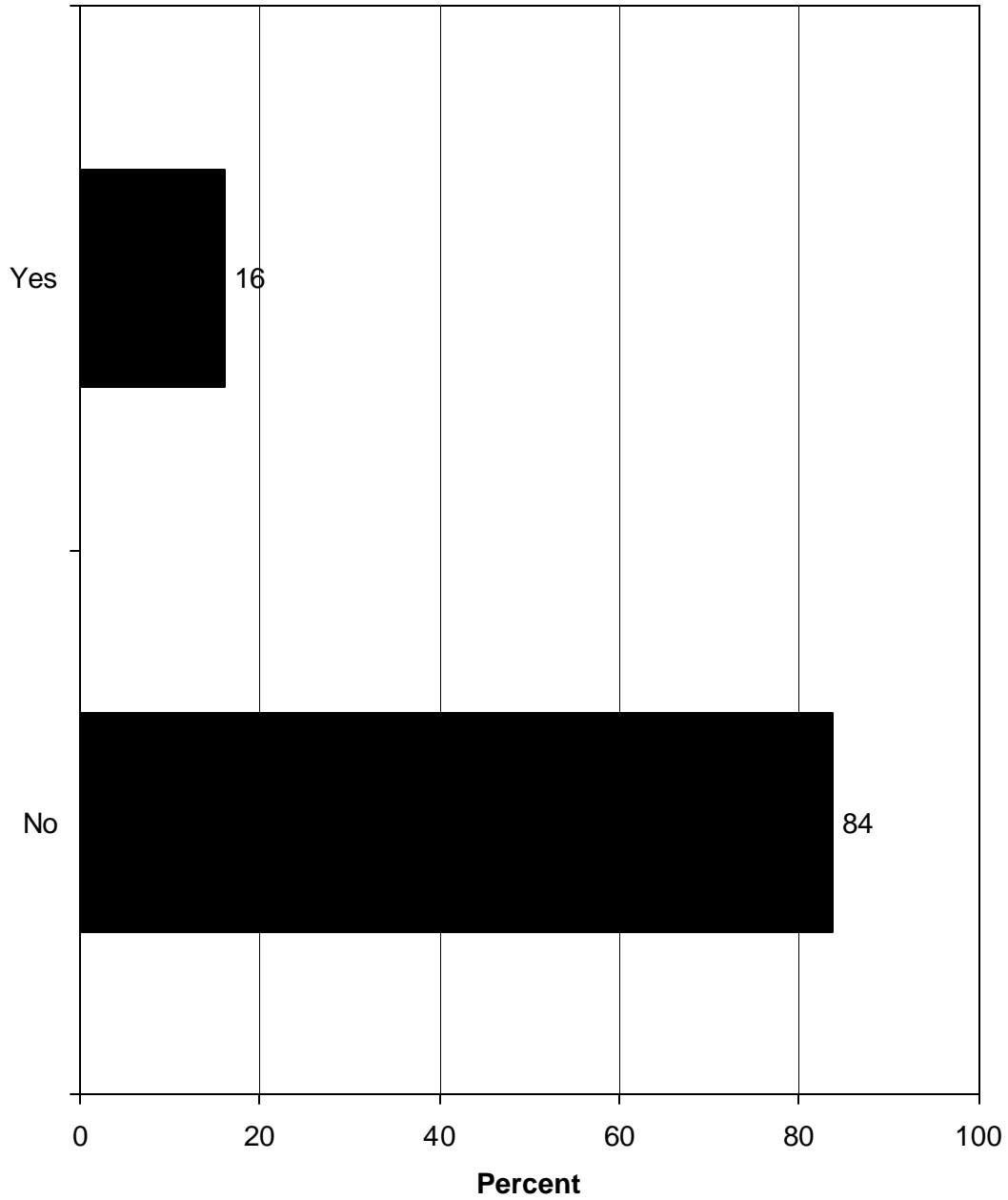
PARTICIPATION IN COASTAL RESOURCE PROFESSIONAL DEVELOPMENT PROGRAMS

- The majority of coastal decision-makers (69%) do not participate in coastal resource professional development programs as part of their jobs.
- The overwhelming majority of coastal decision makers (84%) also indicated that they do not participate in coastal resource professional development programs annually, suggesting sporadic or limited participation in coastal resource professional development programs.
- Those decision-makers who attend coastal resource professional development programs each year most commonly attend just one session per year (58%).
- The overwhelming majority of decision-makers (97%) who attend coastal resource professional development programs do so based on their own decision, while 6% of decision-makers have supervisors who decide for them part of the time (thereby accounting for the 3% overlap).
- The majority of traveling by decision-makers to coastal resource professional development is local (45%) or regional (42%).
 - In addition to those who travel locally and regionally, just over a fifth of decision-makers (21%) make statewide trips to attend coastal resource professional development.

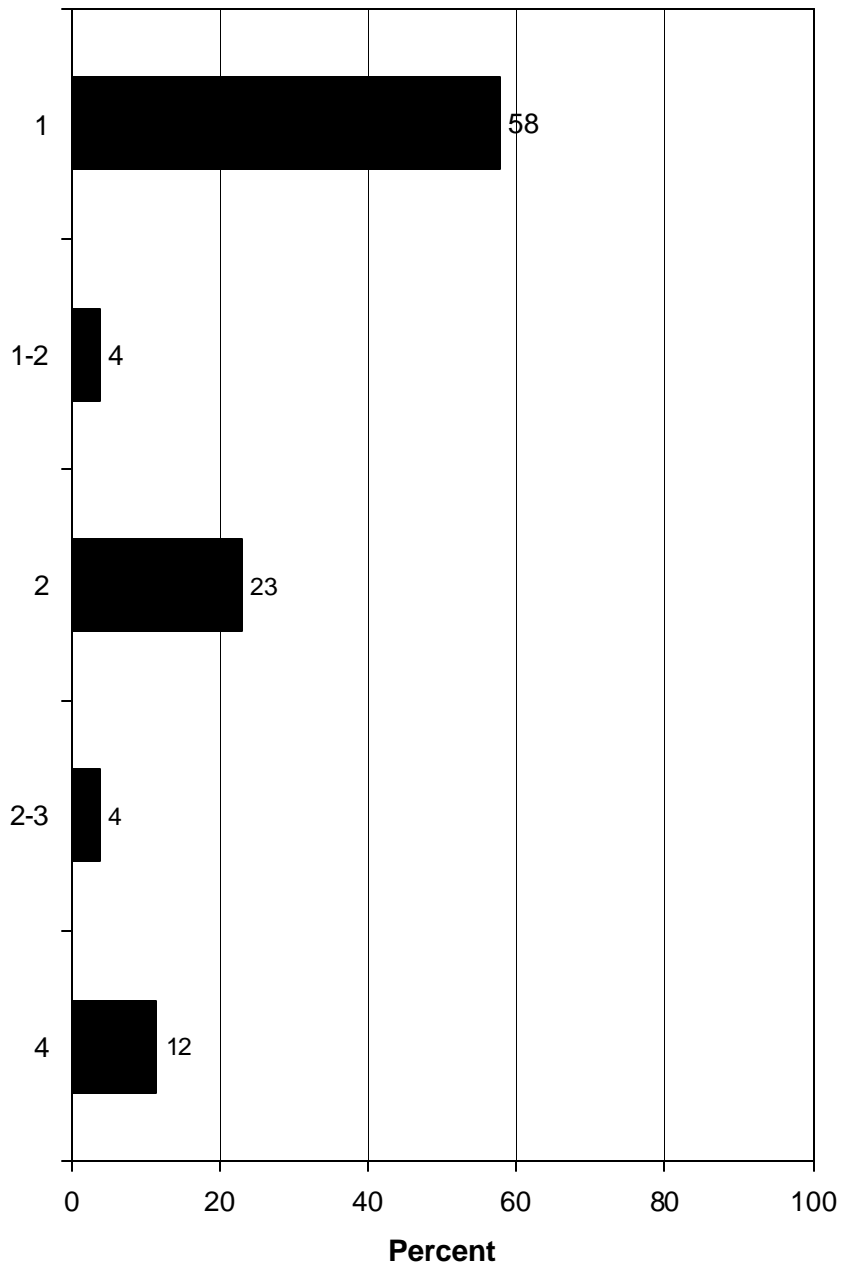
Do you attend coastal resource professional development programs as part of your job? (Needs Assessment)



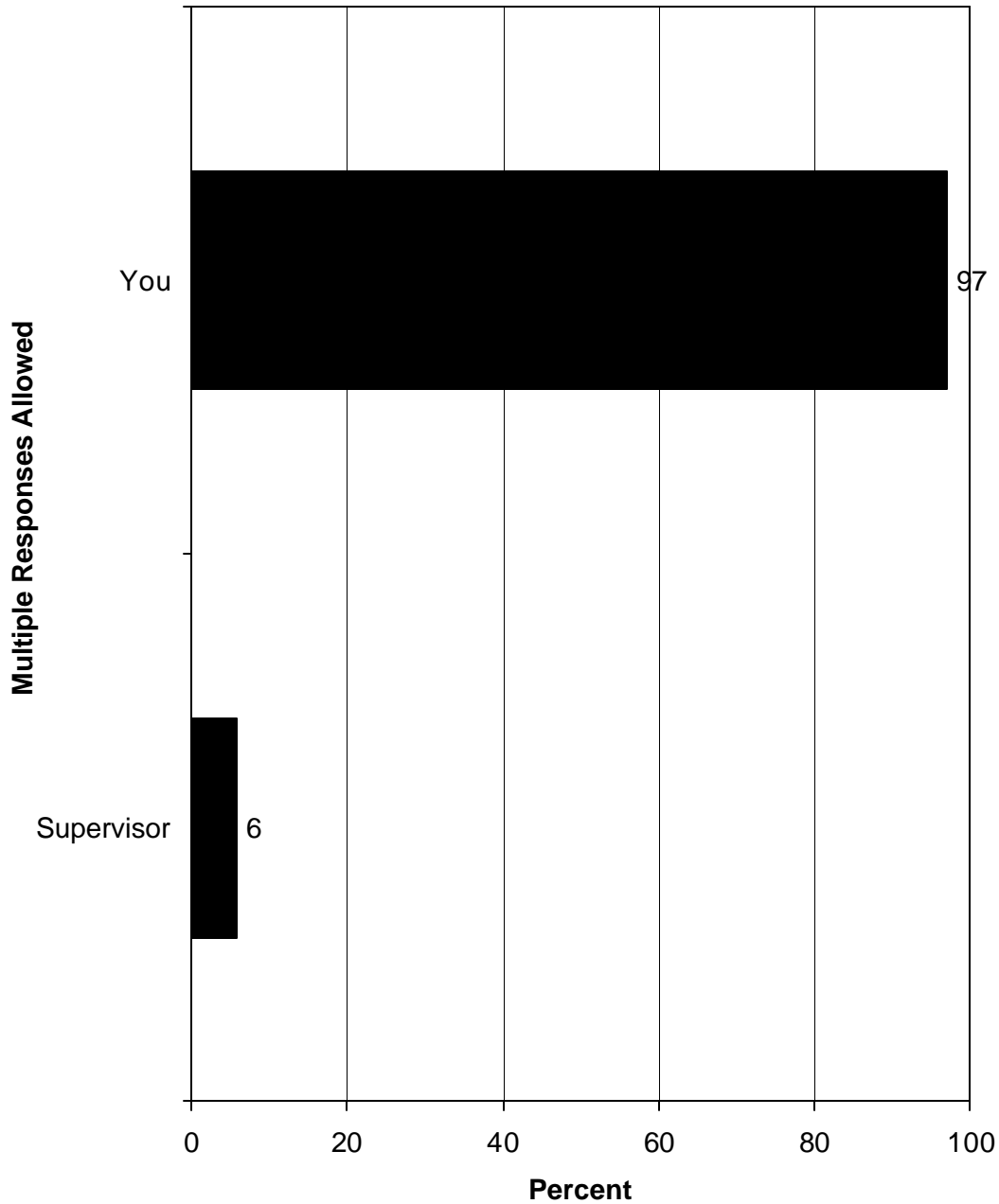
Do you attend coastal resource professional development programs every year? (Needs Assessment)



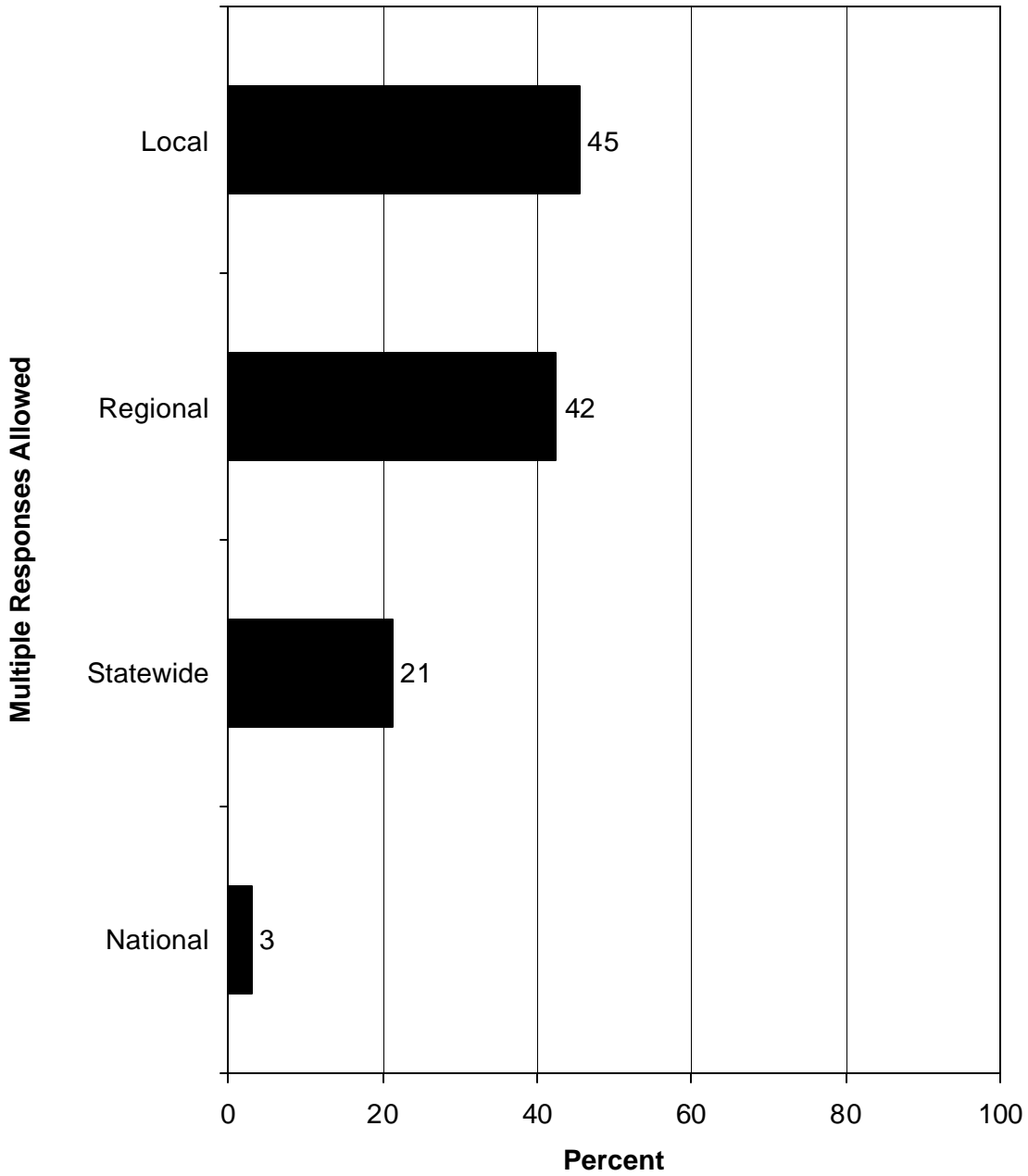
How many different coastal resource professional development sessions do you typically attend per year? (Needs Assessment)



Who makes the decision about which coastal resource professional development programs you attend? (Needs Assessment)



Would you say that your travel to coastal resource professional development is usually local, regional, statewide or national? (Needs Assessment)



COSTS OF ATTENDING COASTAL RESOURCE PROFESSIONAL DEVELOPMENT PROGRAMS

- Most commonly, the cost of the fee for decision-makers to attend coastal resource professional development programs is \$50 (59%).

What is the average fee of the typical coastal resource professional development program that you attend? (Needs Assessment)

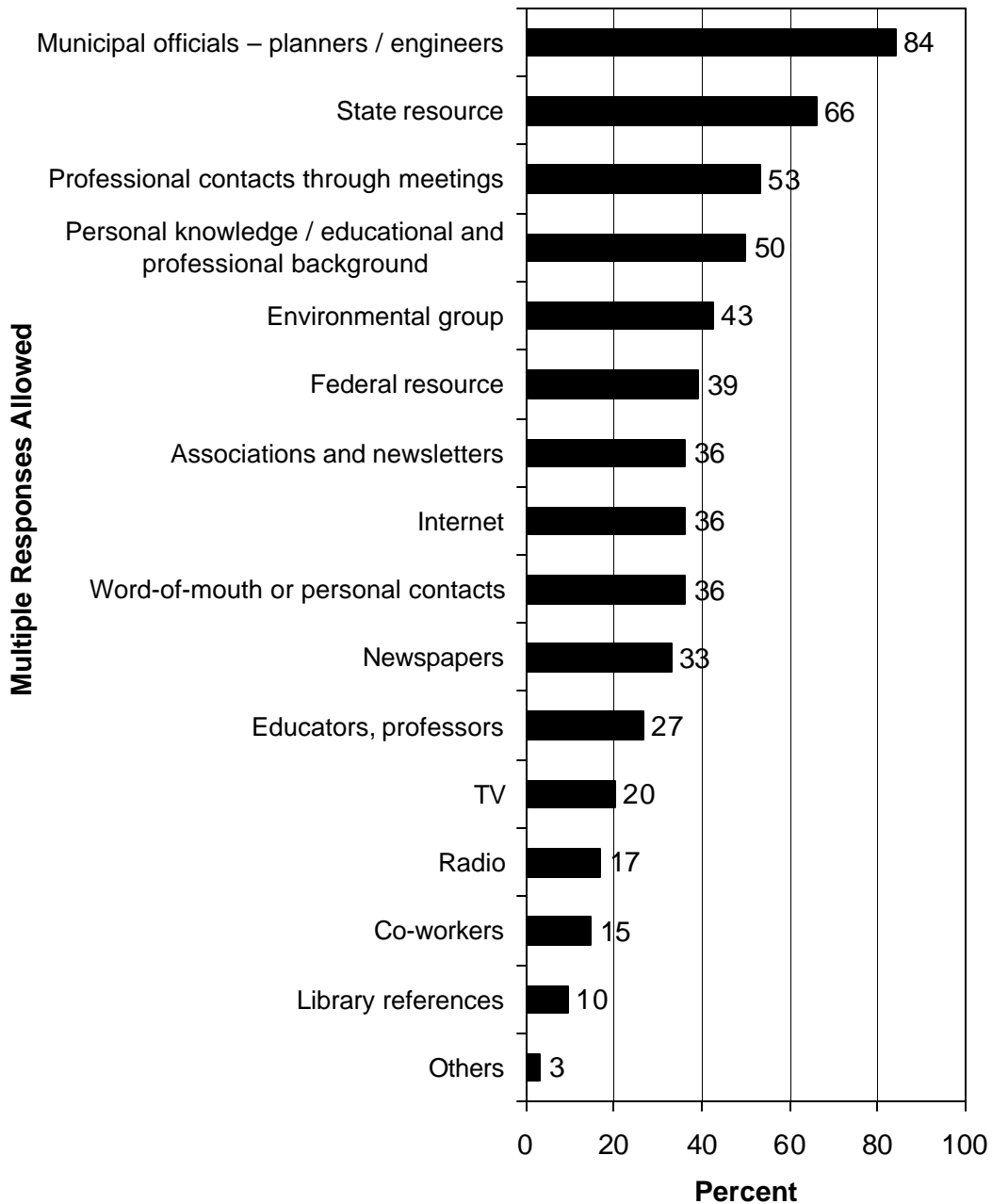


SOURCES OF INFORMATION FOR COASTAL RESOURCE ISSUES

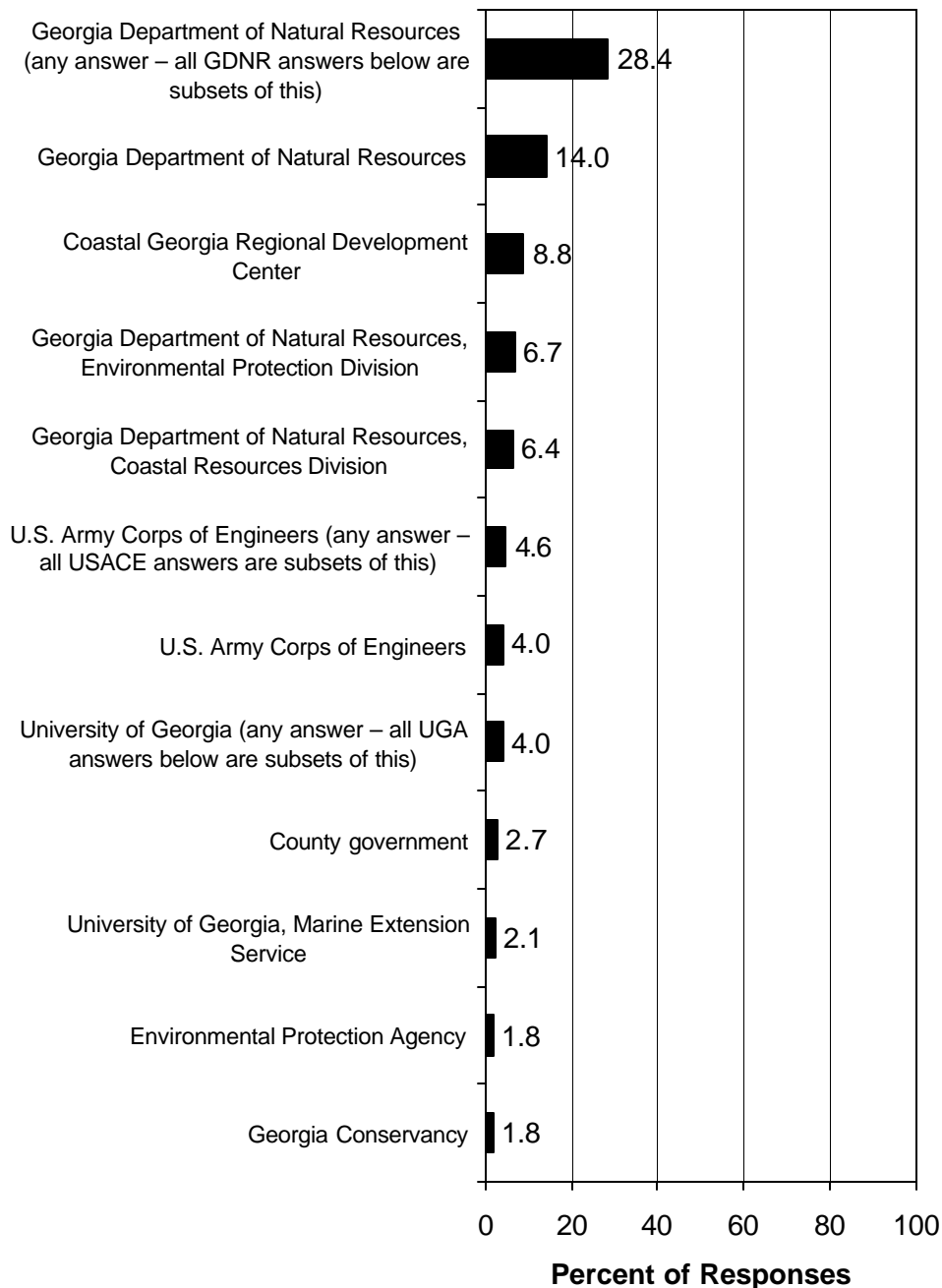
- The survey asked about the sources from which decision-makers receive the information they need for making coastal resource management decisions. Decision-makers most commonly receive information from municipal officials such as planners and engineers (84%), followed by various state resources (66%).
 - The other top information sources for coastal management decision-making are professional contacts through meetings (53%) and respondents' personal knowledge/educational and professional background (50%).

- The survey asked about the top agencies or organizations that decision-makers recognize as authorities for coastal resource information in Georgia. Answers including some mention of the Georgia Department of Natural Resources accounted for 28% of the responses.

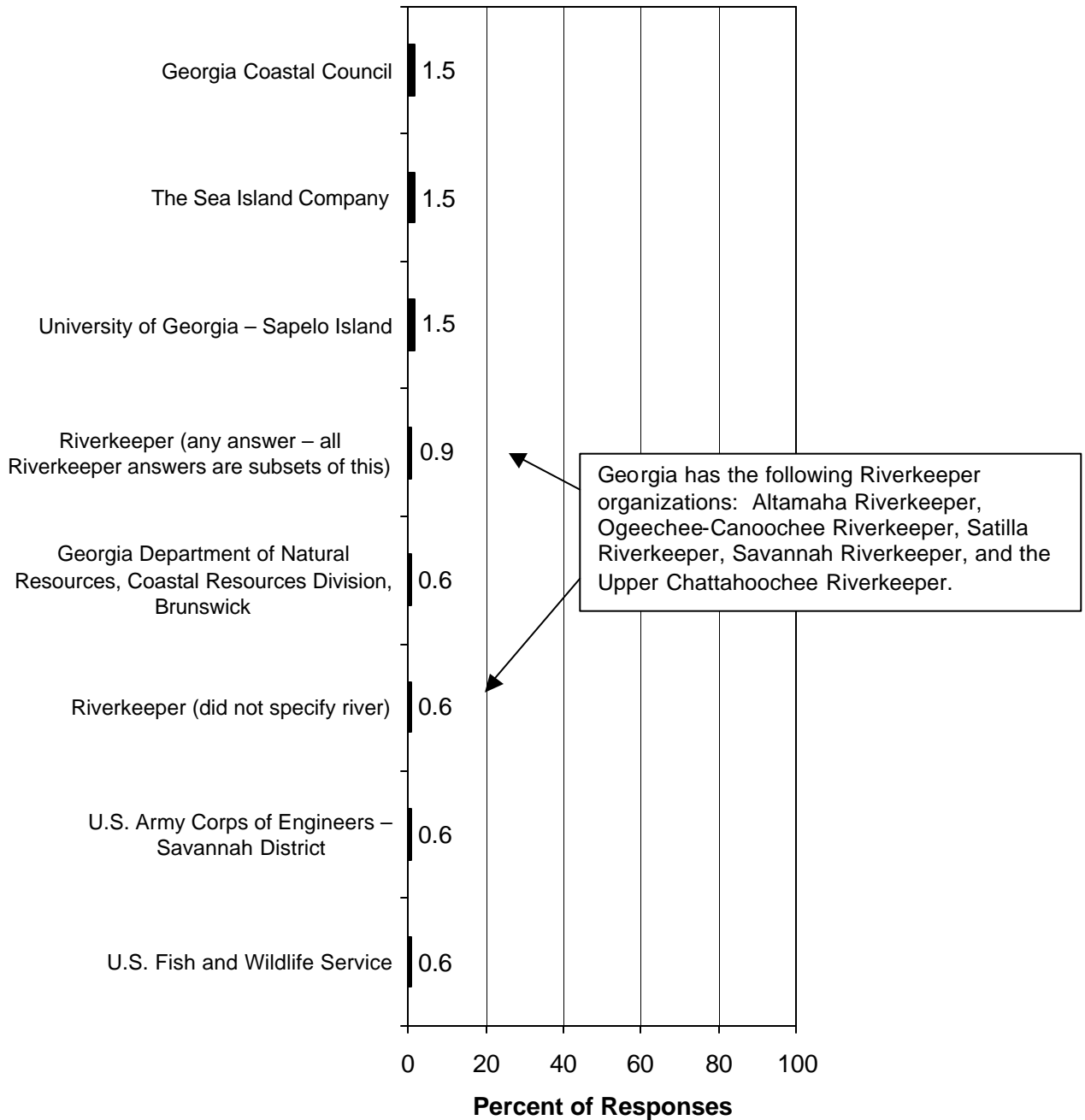
From which sources do you currently receive the information you need for making coastal resource management decisions? (Needs Assessment)



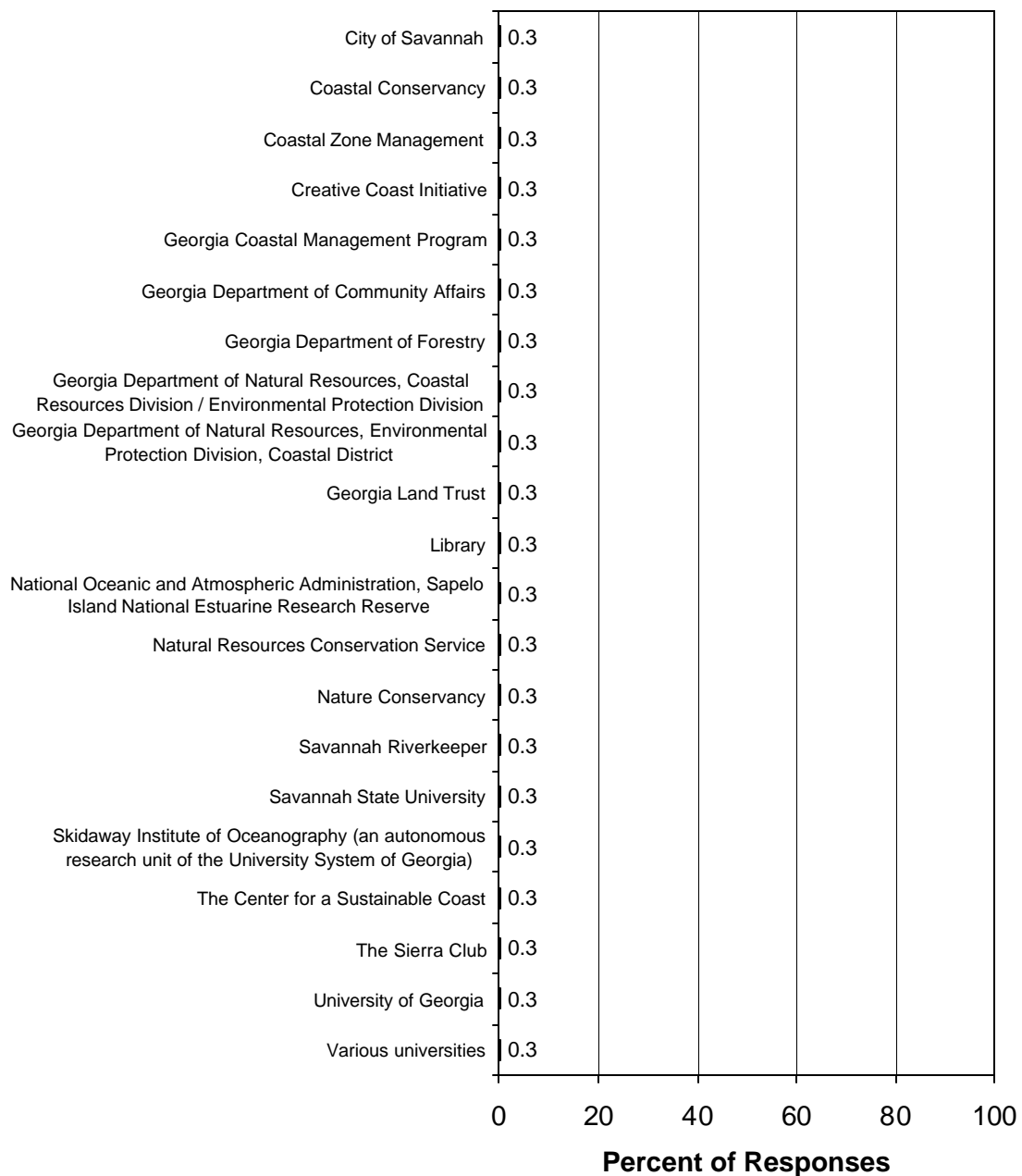
**What are the top three agencies or organizations
that you feel are the recognized authorities for
coastal resource information in Georgia? (Part 1.)
(Needs Assessment)**



What are the top three agencies or organizations that you feel are the recognized authorities for coastal resource information in Georgia? (Part 2.) (Needs Assessment)



**What are the top three agencies or organizations
that you feel are the recognized authorities for
coastal resource information in Georgia? (Part 3.)
(Needs Assessment)**

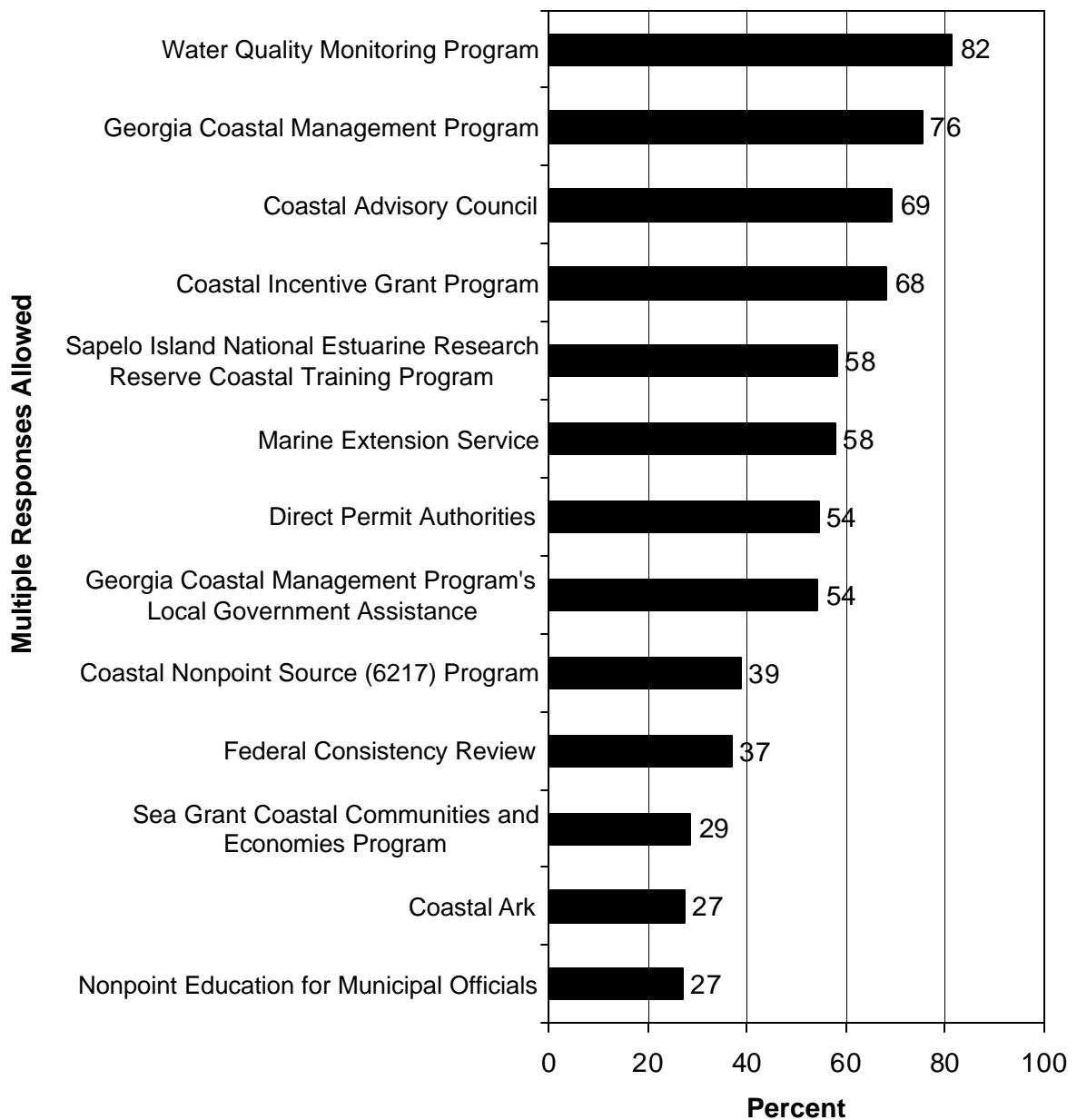


FAMILIARITY WITH COASTAL RESOURCE PROFESSIONAL DEVELOPMENT PROGRAMS

- The survey asked about respondents' familiarity with 13 different sub-programs of the Georgia Coastal Management Program and the SINERR-Coastal Training Program and its partnering organizations. Besides the Georgia Coastal Management Program and the Sapelo Island National Estuarine Research Reserve, sub-programs included the Water Quality Monitoring Program, Georgia Coastal Management Program's Local Government Assistance, the Federal Consistency Review, the Coastal Ark, Direct Permit Authorities, the Coastal Nonpoint Source (6217) Program, the Coastal Advisory Council, the Coastal Incentive Grant Program, Nonpoint Education for Municipal Officials, Sea Grant Coastal Communities and Economies Program, and the Marine Extension Service.

- Decision-makers appear to be most familiar with the Water Quality Monitoring Program, as 82% of them indicated being very or somewhat familiar. More than three-quarters (76%) are familiar with the Georgia Coastal Management Program, and more than two-thirds are familiar with the Coastal Advisory Council (69%) and the Coastal Incentive Grant Program (68%).
 - At the bottom of the list of programs with which decision-makers are familiar were Nonpoint Education for Municipal Officials (27%), Coastal Ark (27%), and Sea Grant Coastal Communities and Economies Program (29%).

Percent who indicated being very or somewhat familiar with the following programs before this survey. (Needs Assessment)



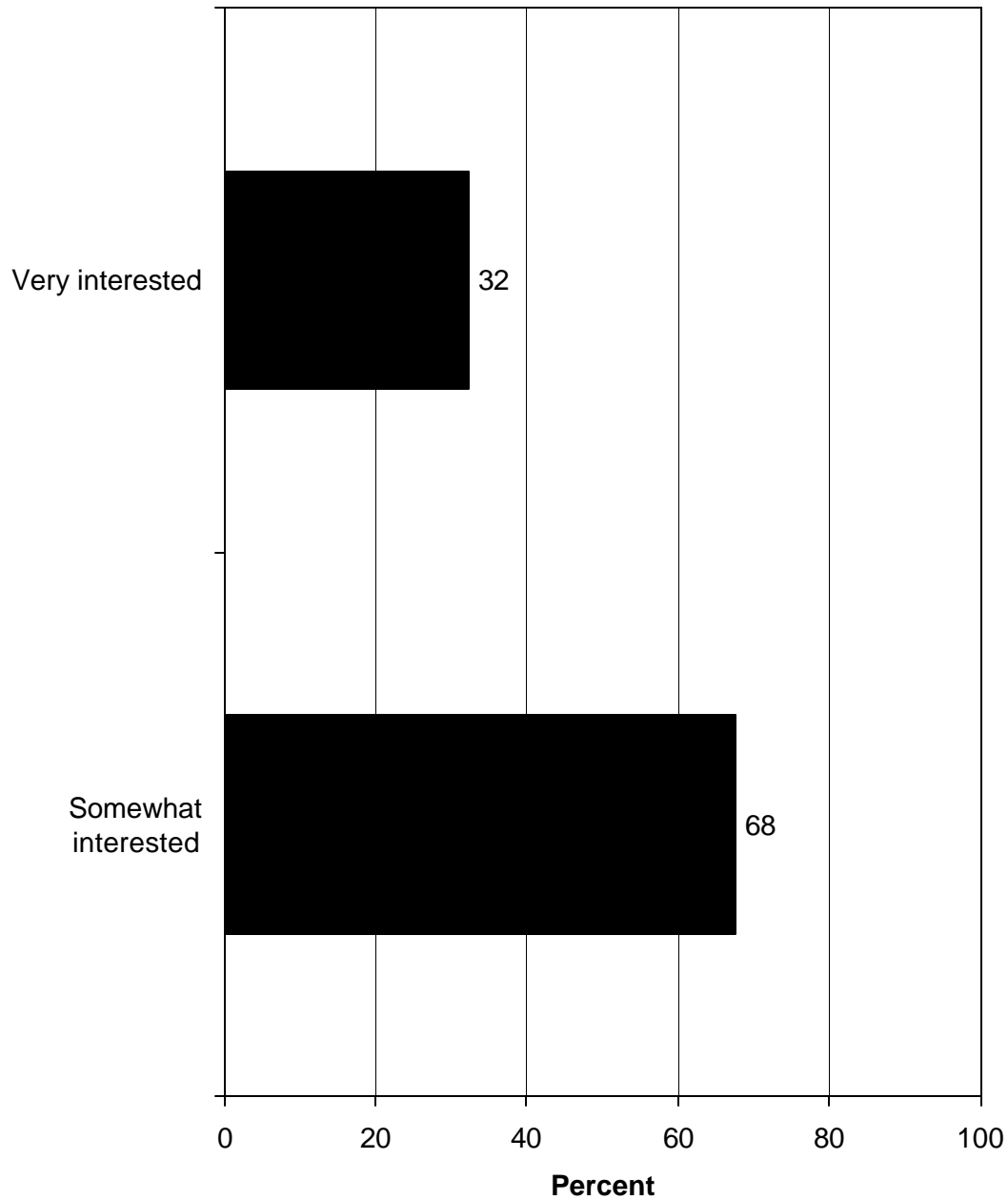
INTEREST IN PROGRAMS, ISSUES OF INTEREST, AND COASTAL TRAINING NEEDS

Interest in Coastal Resource Professional Development Programs

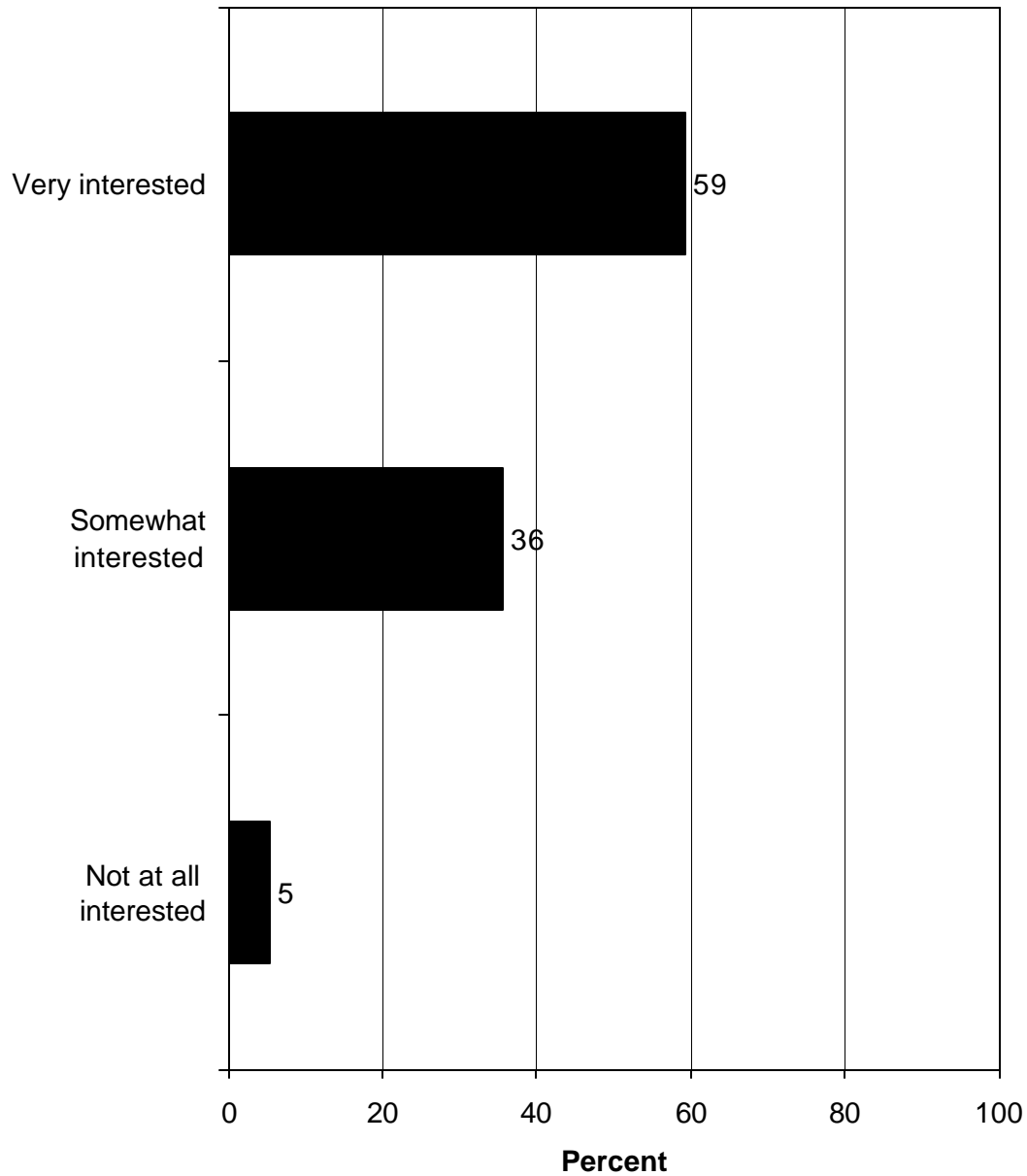
- All decision-makers indicated being interested in participating in coastal resource professional development programs, with 32% being *very* interested.

- When asked about their interest in receiving technical assistance and outreach from state agencies and universities with regard to coastal resource development in their communities, 95% of decision-makers said that they were interested, with 59% being *very* interested in receiving such technical assistance and outreach.
 - Just 5% of decision-makers indicated that they were not at all interested in receiving technical assistance and outreach from state agencies and universities regarding coastal resource development.

Please indicate how interested you are in participating in coastal resource professional development programs in the future. (Needs Assessment)



**Are you very, somewhat, or not at all interested in receiving technical assistance and outreach from state agencies and universities with regard to coastal resource development in your community?
(Needs Assessment)**



Issues of Interest

- The survey asked decision-makers which aspects of various coastal resource topics/issues were important for their community. The following discusses the responses to individual questions, followed by a summary tabulation of responses for ease of reading.
- Beach Nourishment—The most common response is about the drawbacks of beach nourishment, with just a few responses directly related to applied techniques. Many responses are about theoretical aspects of beach nourishment, such as the role of beaches and barrier islands within coastal resources.
 - Biodiversity—The most common responses concerned applied techniques for protecting biodiversity.
 - Boat / Marina Management—Responses are split between theoretical aspects (boats' effects on the environment) and applied aspects (new construction of marinas).
 - Buffers—Responses are split between theoretical aspects (reasons for them) and applied aspects (the proper amount of setback).
 - Coastal Community Development—Responses for this issue mostly pertain to theoretical aspects with very little relating to applied techniques.
 - Coastal Construction—The most common responses relate to construction standards associated with natural hazards.
 - Coastal Hazards—Hurricanes and storms, and the storm surges they cause, lead the responses. Many responses are for applying knowledge, such as planning for hazards and identifying areas of risk.
 - Coastal Processes—Most respondents interpreted “coastal processes” to mean processes related to construction and other human activities rather than *natural* coastal processes.
 - Docks and Piers—Most responses were about applied techniques, such as maintenance of them. Nonetheless, some responses related to theoretical aspects, such as their effect on the environment.
 - Economic Aspects of Land Use—The most common responses related to the tax base and demand for services within communities.
 - Environmental Aspects of Land Use—Most responses concerned avoiding environmental degradation, but there were some responses about regulatory aspects of land use.

- Environmental Technologies—Two common themes for this topic pertained to learning about new technologies and learning how to use new technologies.
- Erosion and Sedimentation Control—Most commonly, responses related to construction sites and erosion control.
- GIS (Geographic Information System)—Applied techniques, such as using GIS as a planning tool or expanding its uses, led the responses. Some responses related to obtaining funding for GIS, which some small communities indicated was a problem.
- Habitat Change—Loss of habitat was the leading response.
- Habitat Restoration and Protection—Many responses related to *protecting* habitat during development (rather than having to *restore* it later), although some responses related to applied techniques and technologies for restoring habitat.
- Impacts of Human Disturbances—Urban sprawl and environmental problems from human disturbances are the most common responses.
- Invasive Species—Most responses related to *aquatic* invasive species, particularly their introduction by boats and ships.
- Land Use Planning—Common responses related to growth management, as well as new ideas and techniques for good planning.
- Low Impact Development—Simply educating people on low-impact development is the common theme of responses regarding this issue.
- Marine Debris—Responses specifically about abandoned vessels, as well as responses about environmental effects of marine debris, were the most common.
- Native Plant and Animal Species—Use of native plants in landscaping was the most common theme.
- Nutrient Enrichment—Its effect on various plant species, such as marsh grass, was the most common type of response.
- Ocean Management—Responses were disparate (such as “growth” or “shipping”) and cannot be readily summarized.
- Ordinances and Regulations—Using ordinances and regulations to manage growth and protect the environment were leading responses, as were responses related to setting standards. Responses for this question were concerned with applying techniques much more than with any theoretical aspects.

- Renewable Energy—Responses were disparate (such as “alternate sources of energy” or “quality development”) and cannot be readily summarized.
- Saltmarshes—Protection of them was the most common theme, as well as managing stormwater to protect them.
- Septic Tanks—The most common responses related to information about septic tanks’ effects on water quality. There were some responses related to taking steps to abolish them in favor of sewer systems.
- Stormwater—Their effects on marsh grasses was commonly mentioned; otherwise, applied aspects, such as implementation of stormwater management plans and setting regulations concerning stormwater, were common responses.
- Sustainable Building—Education regarding sustainable building was the only common response; other responses were quite disparate.
- Wastewater Management—Upgrading systems was the most common response, as well as regulations regarding wastewater management.
- Water Quality—Managing water (stormwater and wastewater) to ensure good quality was a common responses.
- Water Quantity—Sustainable growth and meeting municipal demand for water were common themes of responses, as were applied techniques for conserving water.
- Wetlands and Waterways Protection—Protection from development was the most common theme.
- Zoning—Responses for this issue were commonly about applied rather than theoretical aspects, such as integrating zoning into plans, using zoning to control and manage growth, and using zoning to protect coastal resources.
- The following pages show the tabulated results.

Issue	Important Aspects Commonly Named	Percent
Beach Nourishment	Drawbacks of beach nourishment	30
	The role that beaches and barrier islands play in coastal resources	15
	Engineering of nourishment/maintenance of beaches	11
	Beach erosion as a natural process/barrier island migration	7
Biodiversity	Actions that can be taken to protect it	* 31
Boat / Marina Management	Pollution/effects on the environment	31
	Access/need for marinas	24
	Permitting	21
	New construction of them	10
	Boating safety at them	7
Buffers	Proper amount of setback/building setbacks	43
	Reasons for them/environmental benefits	43
	How to create them	8
Coastal Community Development	Effects on the environment and/or water quality	30
	Quality of developments/proper planning	21
	Housing needs	15
	Safety/emergency preparedness	6
Coastal Construction	Construction and natural hazards	45
	Effects on the environment	16
Coastal Hazards	Weather-related answers (including hurricane and storm)	59
	Planning for hazards	27
	Identifying areas of risk	14
Coastal Processes	Stormwater management	36
	Building codes, planning, zoning, and development regulations	29
	Communication between entities (e.g., municipalities, organizations) regarding hazards	29
Docks and Piers	Maintenance	32
	Effects on the environment	26
	Standards and regulations regarding them	26
Economic Aspects of Land Use	Effects of growth on tax base and demand for services	60
	Environment-related response	16
	Responses related to quality of life	12

Issue	Important Aspects Commonly Named	Percent
Environmental Aspects of Land Use	Degradation of the environment/habitat loss	43
	Regulations	26
	Aesthetics/quality of life-related responses	17
Environmental Technologies	Learning what new technologies exist	54
	How to apply new technologies	31
Erosion and Sedimentation Control	Sedimentation and siltation from construction sites	46
	Getting up-to-date information	23
	Quality of life-related response	12
	Beach erosion	8
GIS (Geographic Information System)	Use as a planning tool	41
	Expanding capabilities and uses	41
	Funding/availability (especially to small communities)	12
Habitat Change	Loss of habitat	53
	Endangered species/protecting species	20
Habitat Restoration and Protection	Habitat protection during development process	43
	Techniques and technologies for habitat protection and restoration	14
Impacts of Human Disturbances	Over-development/urban sprawl	43
	Degradation of habitat/environment	30
	Effects on species	9
Invasive Species	Aquatic species introduced via boats and ships	73
	Effects on environment/habitat/species	14
Land Use Planning	Managing growth	36
	Learning of new ideas for land use planning	24
	Land use and environmental effects	12
	Land use and urban infrastructure	8
Low Impact Development	Education on low-impact development/communication of ideas	35
	Sustainable development	12
	Standards for development/regulations	12
Marine Debris	Abandoned vessels	45
	Effects on the environment/water quality	45
Native Plant and Animal Species	Use of native plants in landscaping	45
	Specific types of marine life	18
Nutrient Enrichment	Effects on various plant species	* 69

Issue	Important Aspects Commonly Named	Percent
Ocean Management	**	
Ordinances and Regulations	Use of them for managing growth	56
	Setting standards/improving existing ordinances	39
	Use of them for environmental protection	39
	Enforcement	11
	Zoning	11
Renewable Energy	**	
Saltmarshes	Protection of them in general	48
	Effects of stormwater management	20
	Education about them	8
Septic Tanks	Effects on water quality/groundwater	68
	Abolishing them/expanding sewer systems	11
	Maintenance of them	11
Stormwater	Effects on marsh grasses	27
	Implementation of stormwater management plans	18
	Regulations regarding stormwater	18
	Effects on water quality	15
	Funding/planning for infrastructure	9
Sustainable Building	Education regarding sustainable building	* 33
Wastewater Management	Upgrading systems/abolishing septic systems	40
	Regulations regarding them	30
Water Quality	Management practices related to water quality	29
	Stormwater management	25
	Quality of life-related responses	13
	Water for recreation	8
Water Quantity	Sustainable growth/acquiring enough water	65
	Water conservation techniques	23
	Aquifer drawdowns and management/saltwater intrusion	6
Wetlands and Waterways Protection	Protection from development	* 60
Zoning	Integration of planning and zoning	41
	Zoning to control growth	35
	Zoning compatible with coastal resource protection	18

* Only response for the question that was given by more than two respondents

** All responses disparate; no responses in common with one another

Individual, Community, and Group Needs for Coastal Training

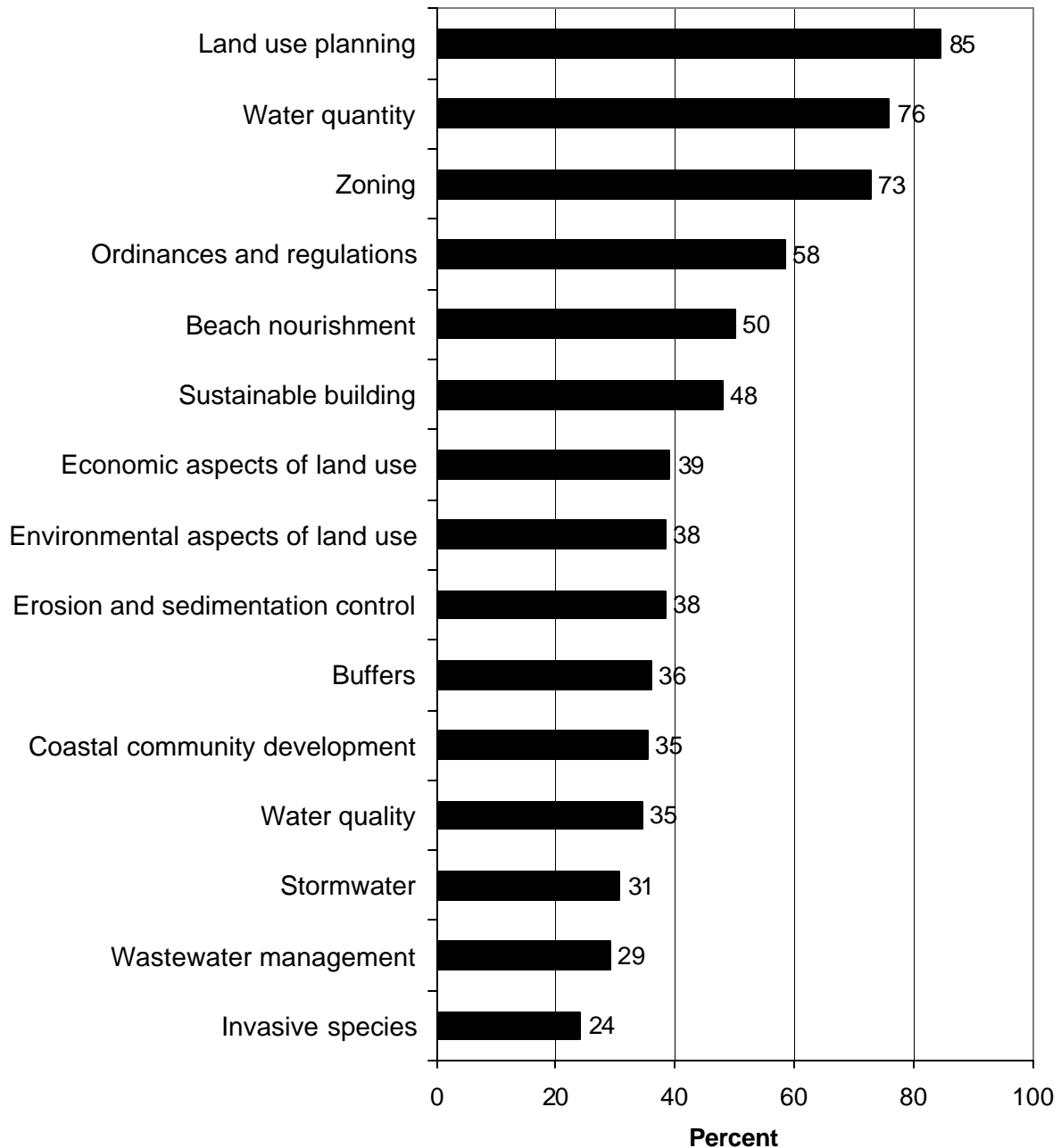
- The survey asked decision-makers about various coastal topics in which they had received training in the past year. Of those coastal topics in which decision-makers had received a *high* degree of training, land use planning (85%) topped the list, followed by water quantity (76%), zoning (73%), and ordinances and regulations (58%).
- There were numerous coastal topics in which decision-makers indicated receiving a *low* degree of training. More than three-quarters of decision-makers reported having received a low degree of training in 10 areas: ocean management (100%), nutrient enrichment (96%), habitat change (91%), saltmarshes (87%), boat/marina management (87%), native plant and animal species (83%), environmental technologies (80%), docks and piers (78%), coastal processes (78%), and invasive species (76%).
- The survey asked decision-makers to indicate their *professional* needs for training on various coastal topics. Two-thirds of decision-makers (66%) indicated professionally having a *high* need for coastal resource training in the areas of water quantity and land use planning. The other topics in which a majority of decision-makers indicated professionally having a high need for training were zoning (62%), ordinances and regulations (52%), stormwater (52%), water quality (52%), and coastal community development (51%).
 - Note that four of the topics from this question (land use planning, water quantity, zoning, and ordinances and regulations) correspond with the top areas in which decision-makers indicated having received a high degree of training.
- Seven topics were identified by decision-makers as areas in which they professionally had a *low* need for coastal resource training: ocean management (70%), beach nourishment (65%), biodiversity (63%), nutrient enrichment (62%), invasive species (62%), native plant and animal species (59%), and marine debris (56%).
- The survey asked decision-makers to indicate their *coastal community* needs for training on various coastal topics: 80% of decision-makers indicated there being a *high* need for training on water quantity in their coastal community, while 72% indicated the same for water

quality. Other top areas in which decision-makers indicated a high community need for training included environmental aspects of land use (69%), land use planning (65%), zoning (64%), erosion and sedimentation control (62%), stormwater (61%), and wastewater management (60%).

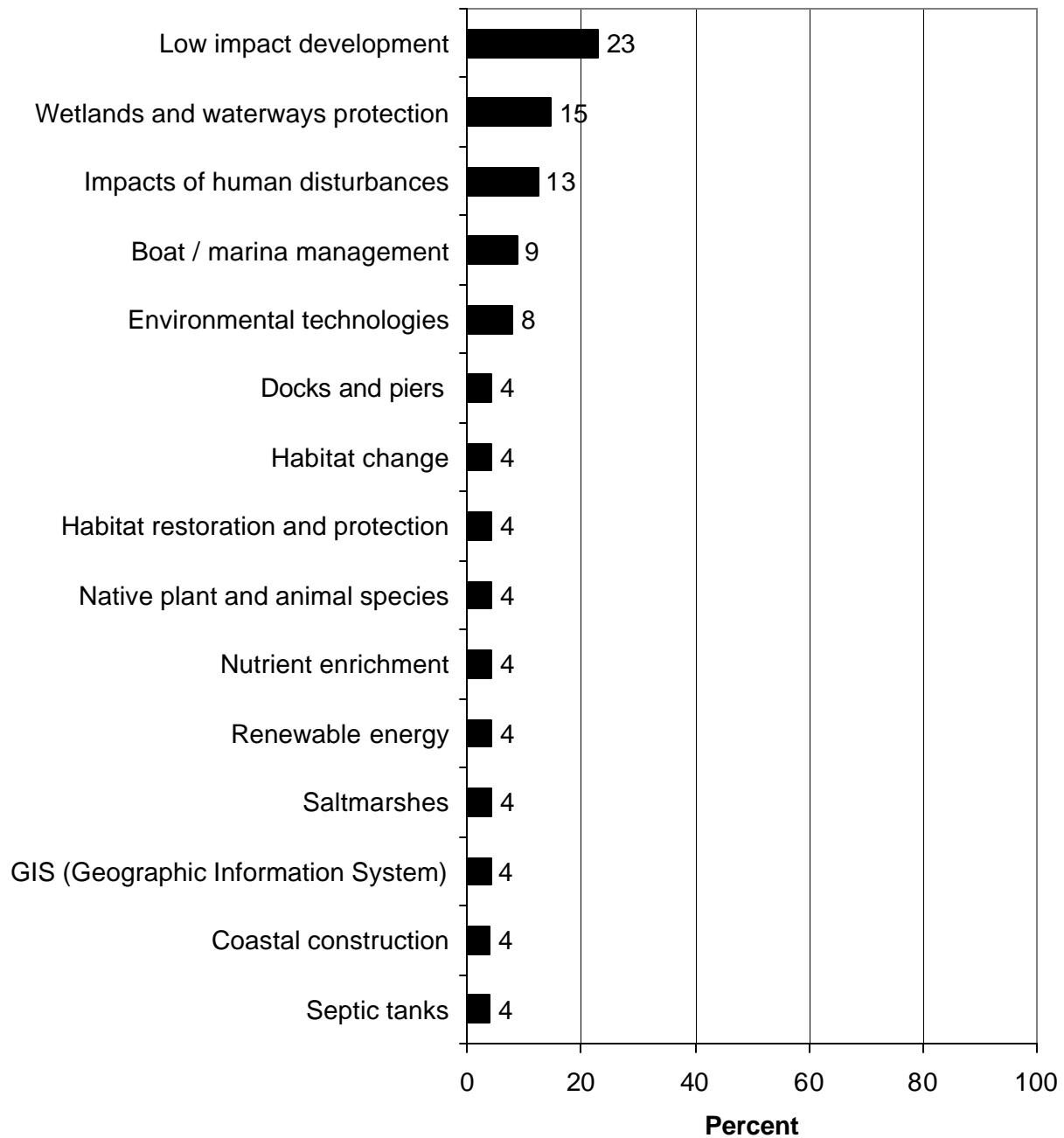
- Three topic areas were identified by a majority of decision-makers as representing *low* needs for coastal resource training in their communities: ocean management (64%), marine debris (59%), and beach nourishment (57%).

- The survey asked respondents to prioritize various decision-making groups as potential recipients of coastal resource training. Of those groups identified by decision-makers as having *high* needs for coastal resource training, city planners (87%), county commissioners (86%), city engineers (82%), city managers (81%), and planning commission members (81%) topped the list.

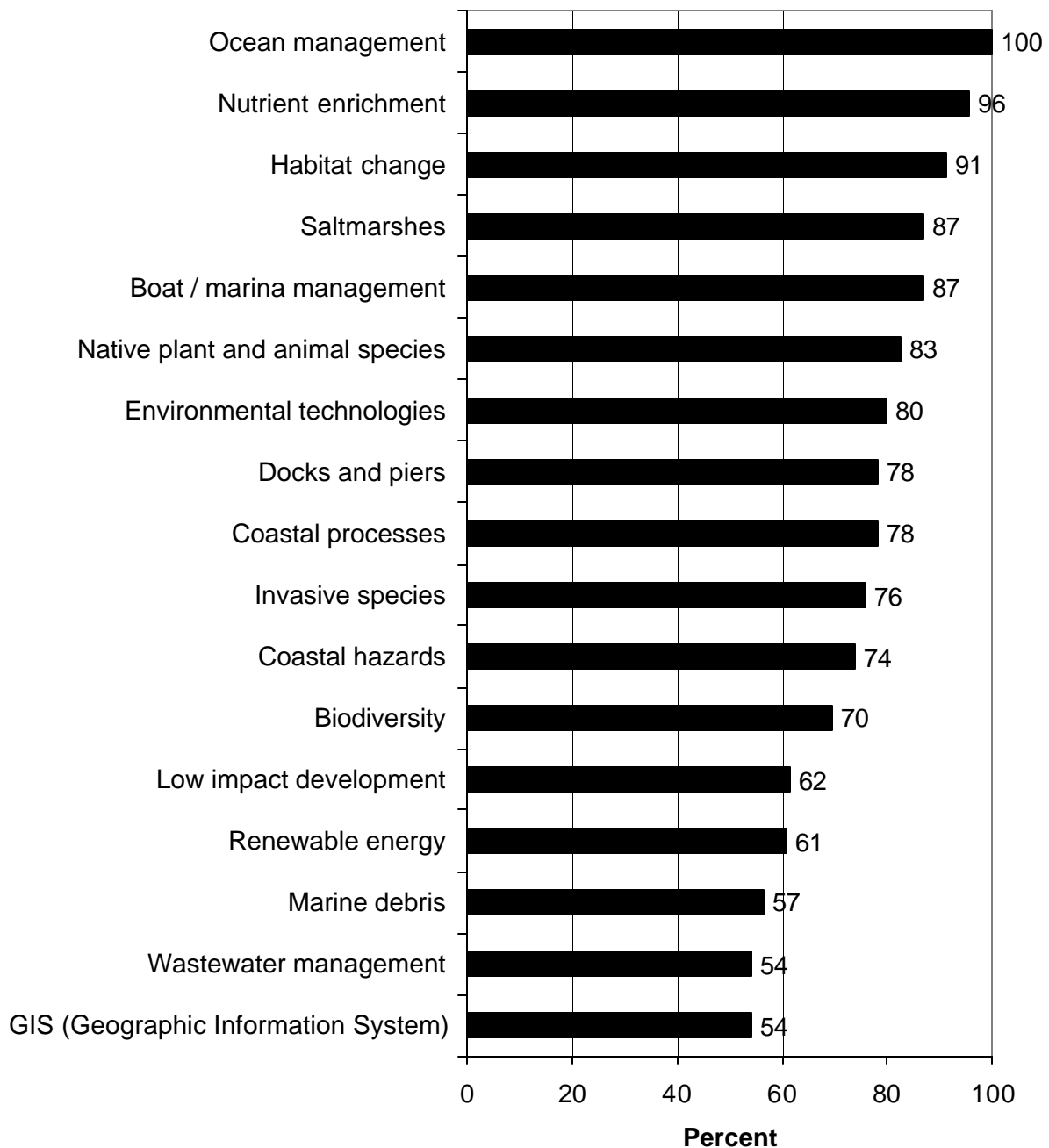
**Percent who indicated receiving a high degree of training
in the following coastal training topics in the past year.
(Part 1.) (Needs Assessment)**



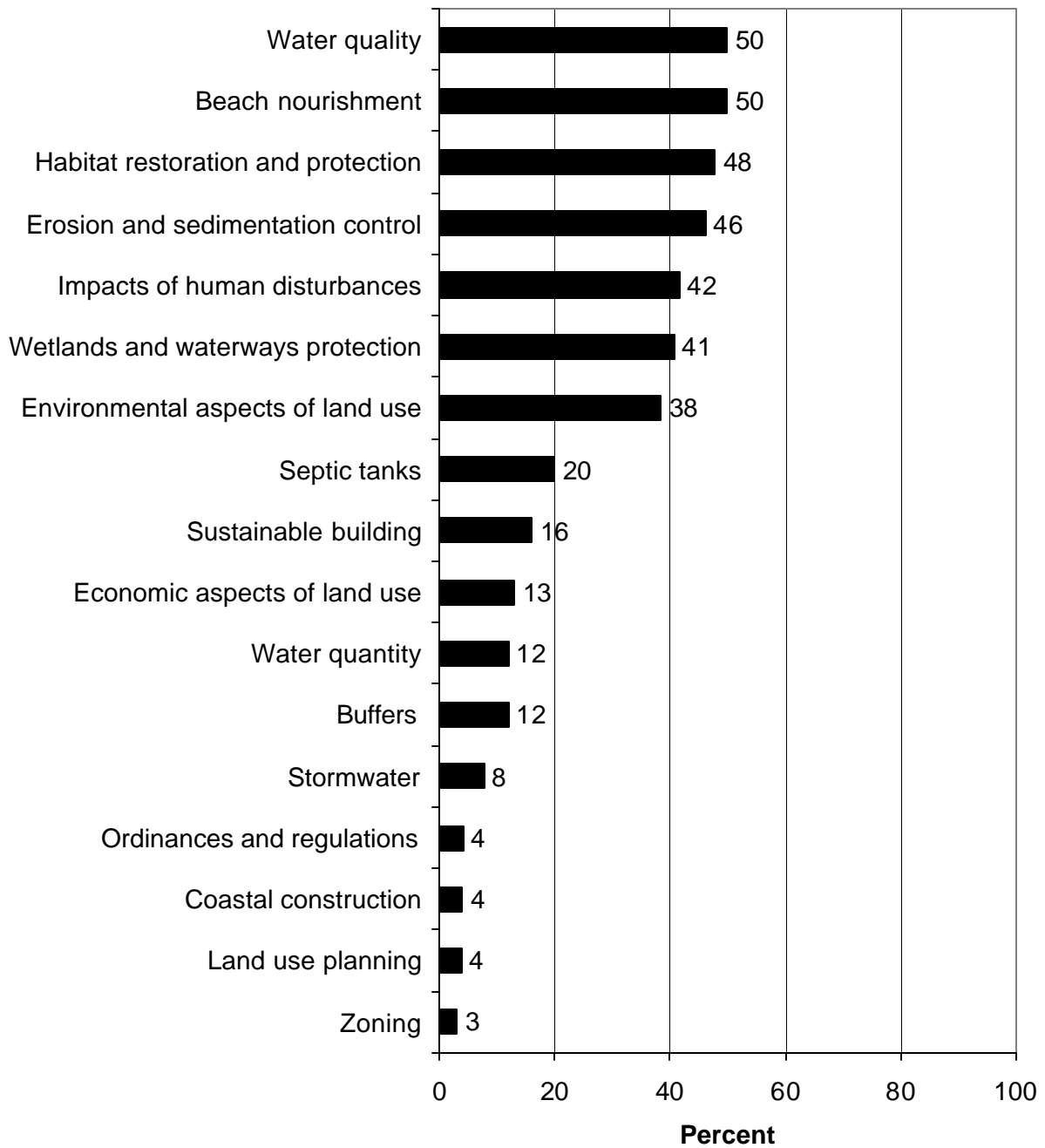
**Percent who indicated receiving a high degree of training
in the following coastal training topics in the past year.
(Part 2.) (Needs Assessment)**



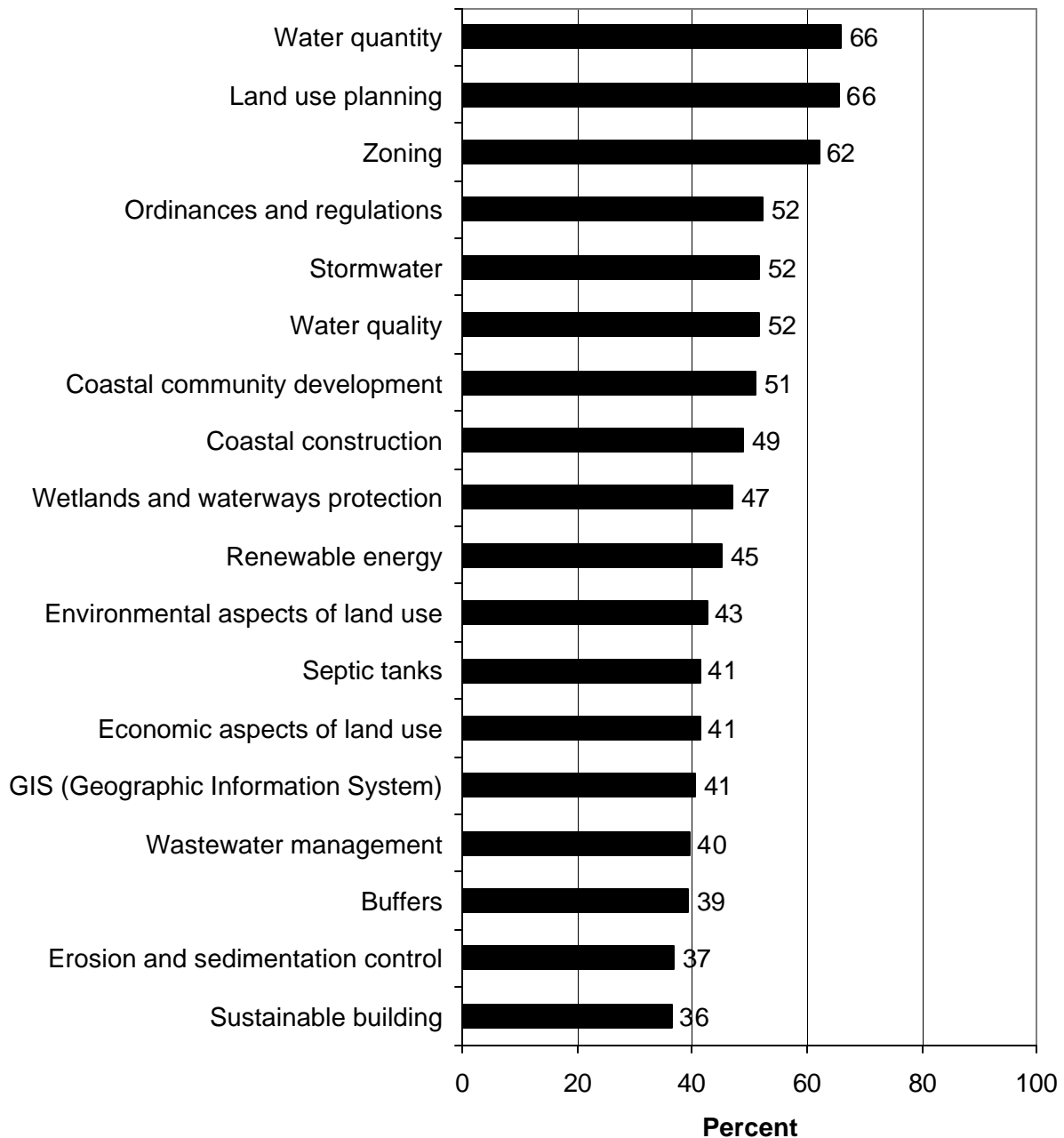
Percent who indicated receiving a low degree of training in the following coastal training topics in the past year. (Part 1.) (Needs Assessment)



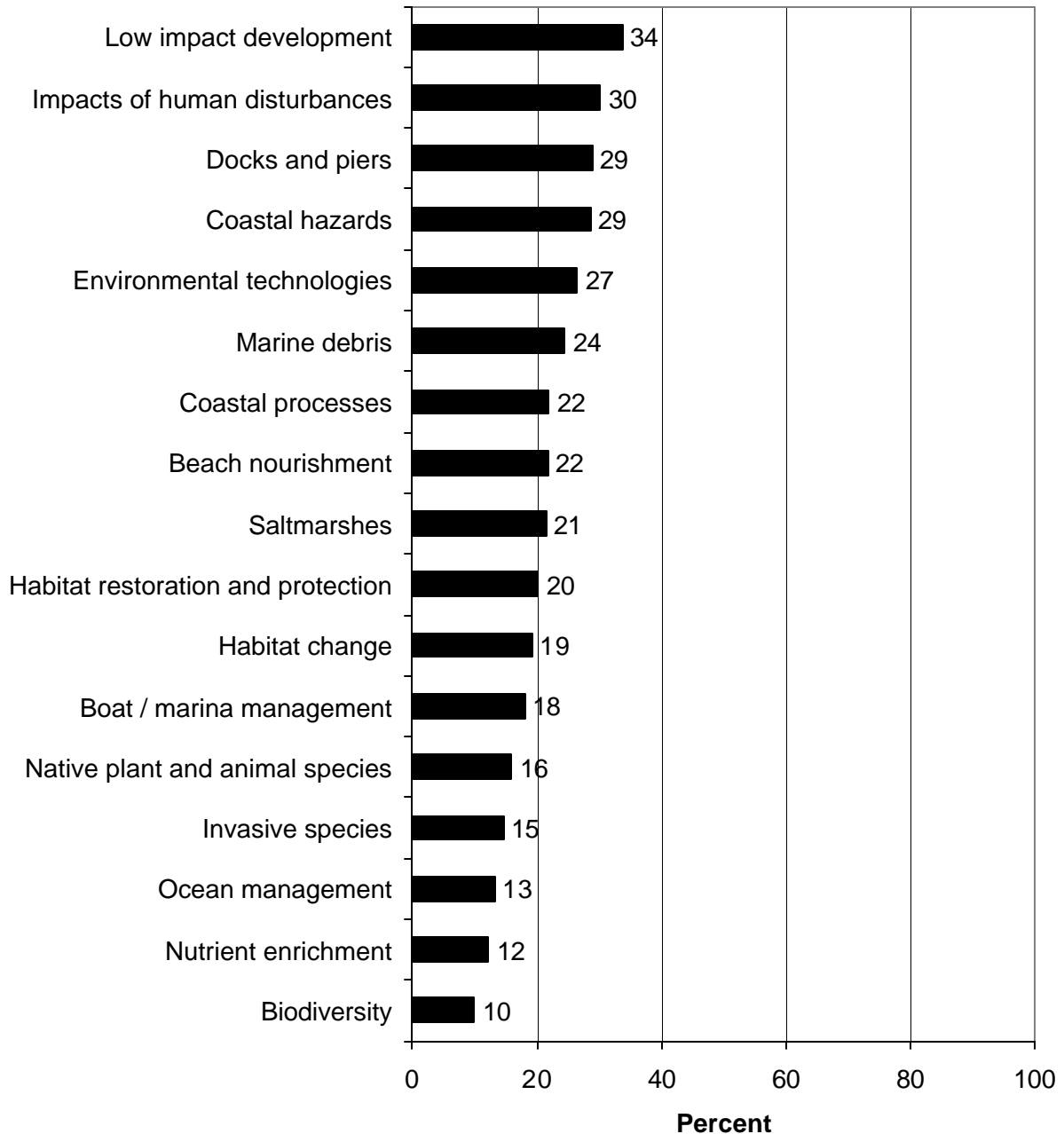
Percent who indicated receiving a low degree of training in the following coastal training topics in the past year. (Part 2.) (Needs Assessment)



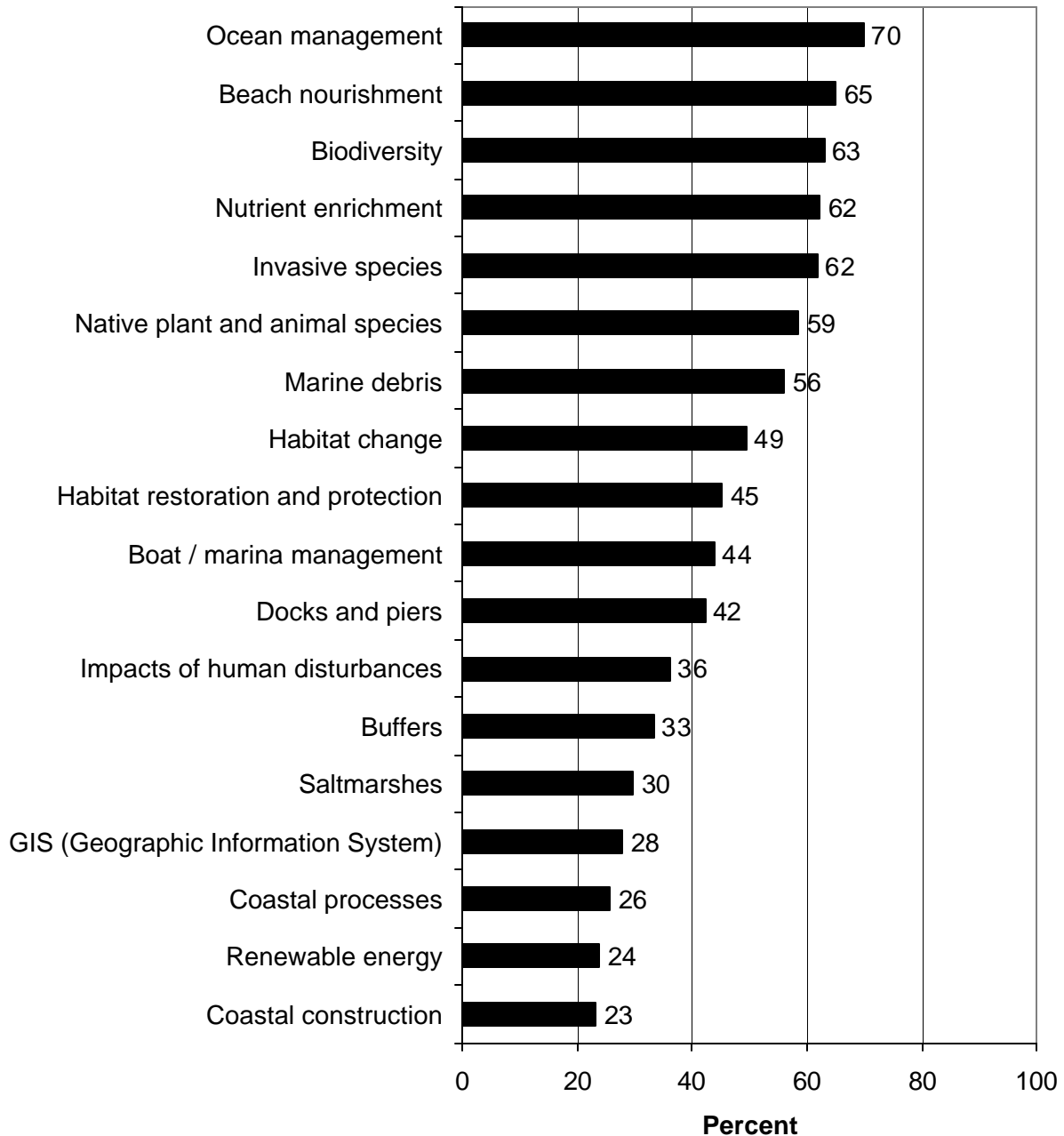
Percent who indicated professionally having a high need for coastal resource training or information on the following topics. (Part 1.) (Needs Assessment)



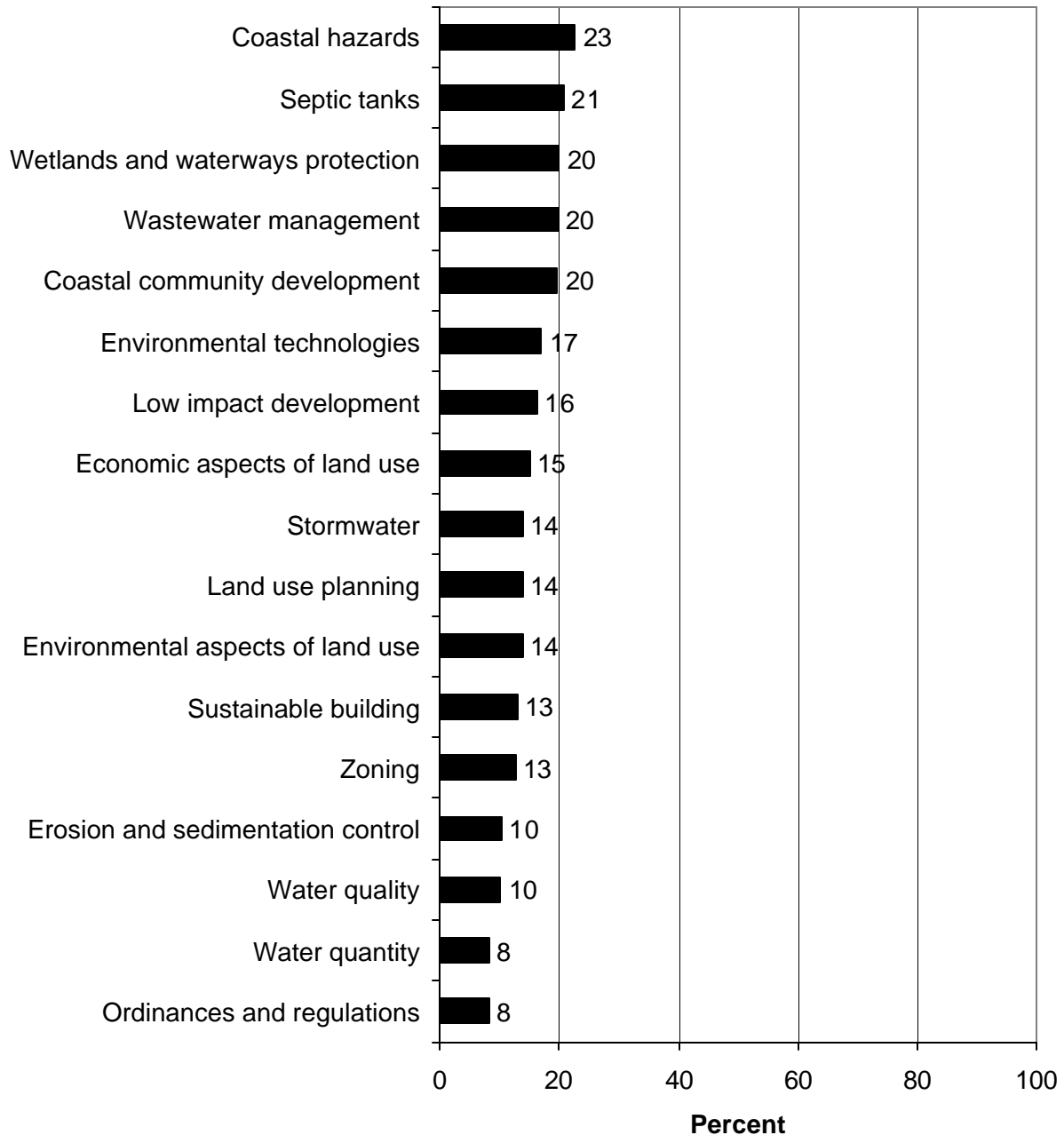
Percent who indicated professionally having a high need for coastal resource training or information on the following topics. (Part 2.) (Needs Assessment)



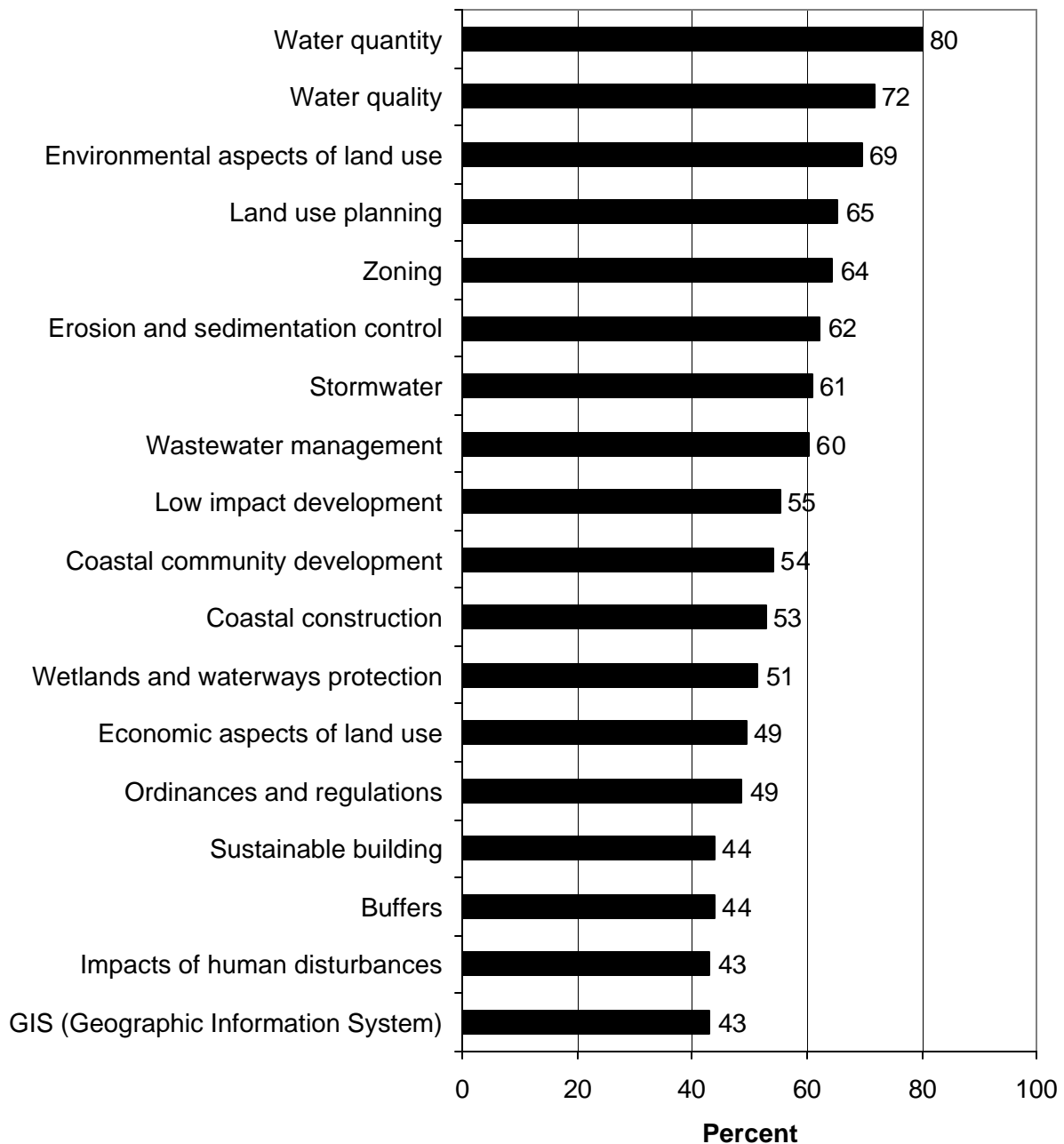
Percent who indicated professionally having a low need for coastal resource training or information on the following topics. (Part 1.) (Needs Assessment)



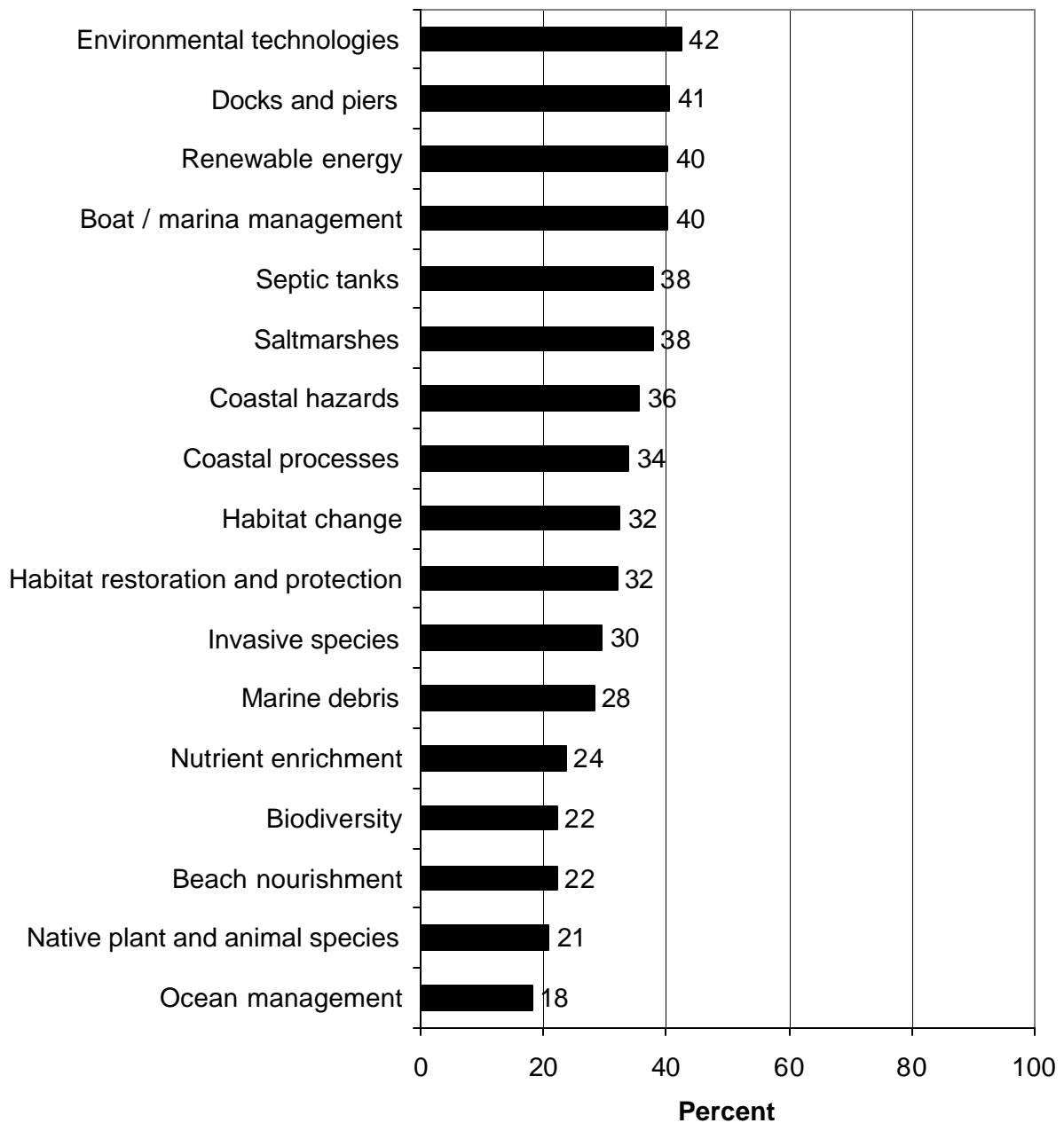
Percent who indicated professionally having a low need for coastal resource training or information on the following topics. (Part 2.) (Needs Assessment)



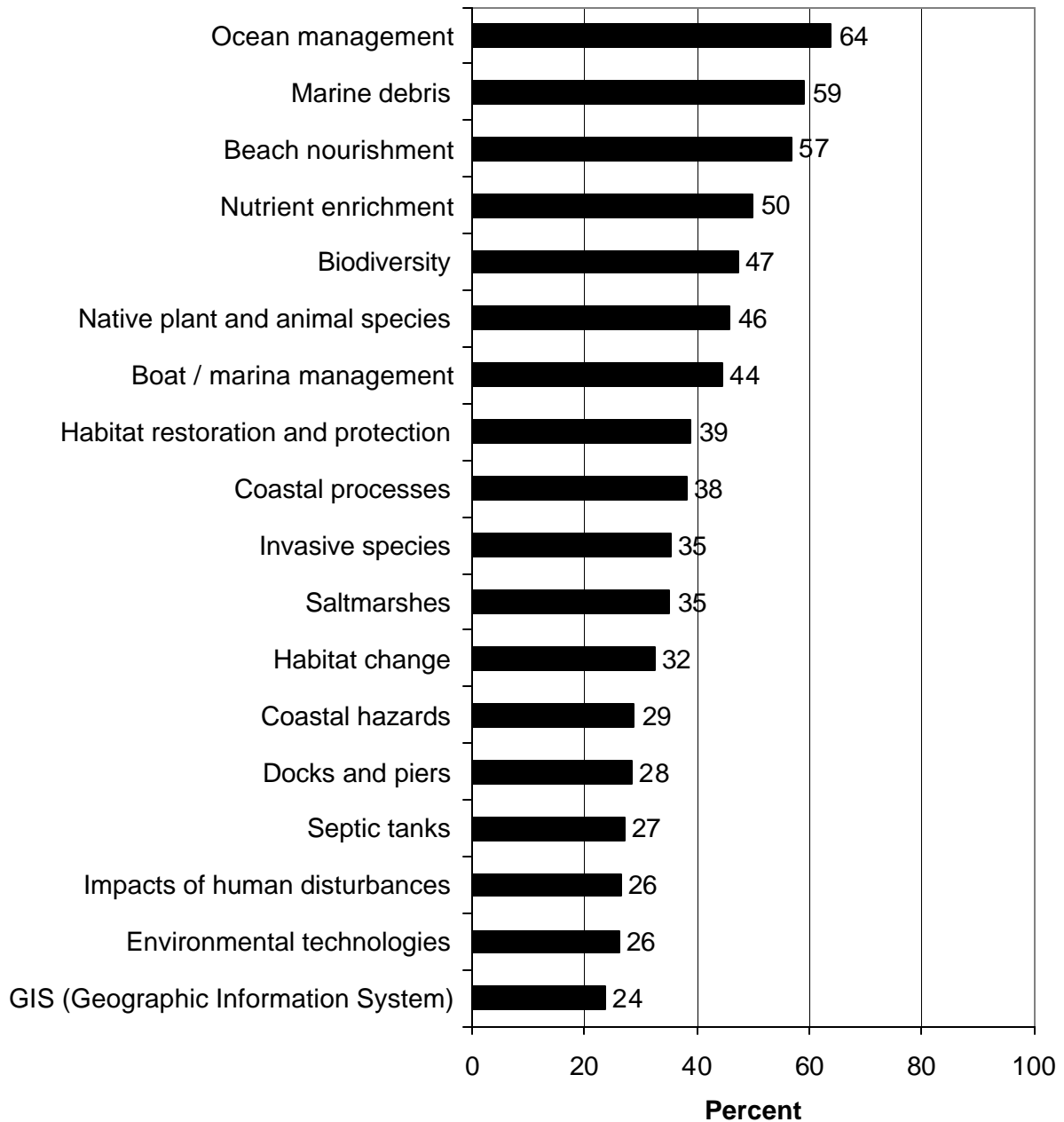
Percent who indicated there is a high need for additional coastal resource training or information in his or her coastal community. (Part 1.) (Needs Assessment)



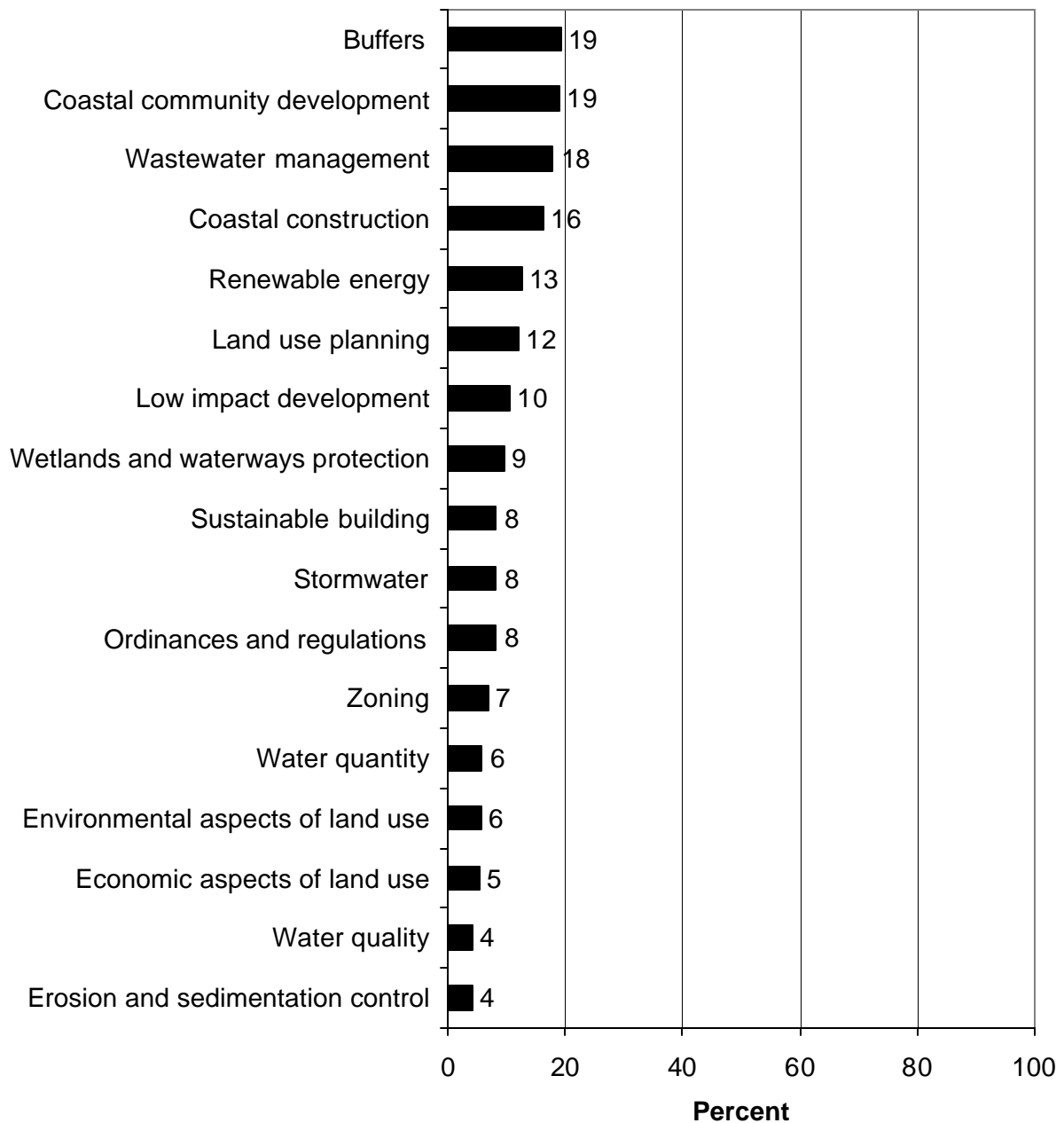
Percent who indicated there is a high need for additional coastal resource training or information in his or her coastal community. (Part 2.) (Needs Assessment)



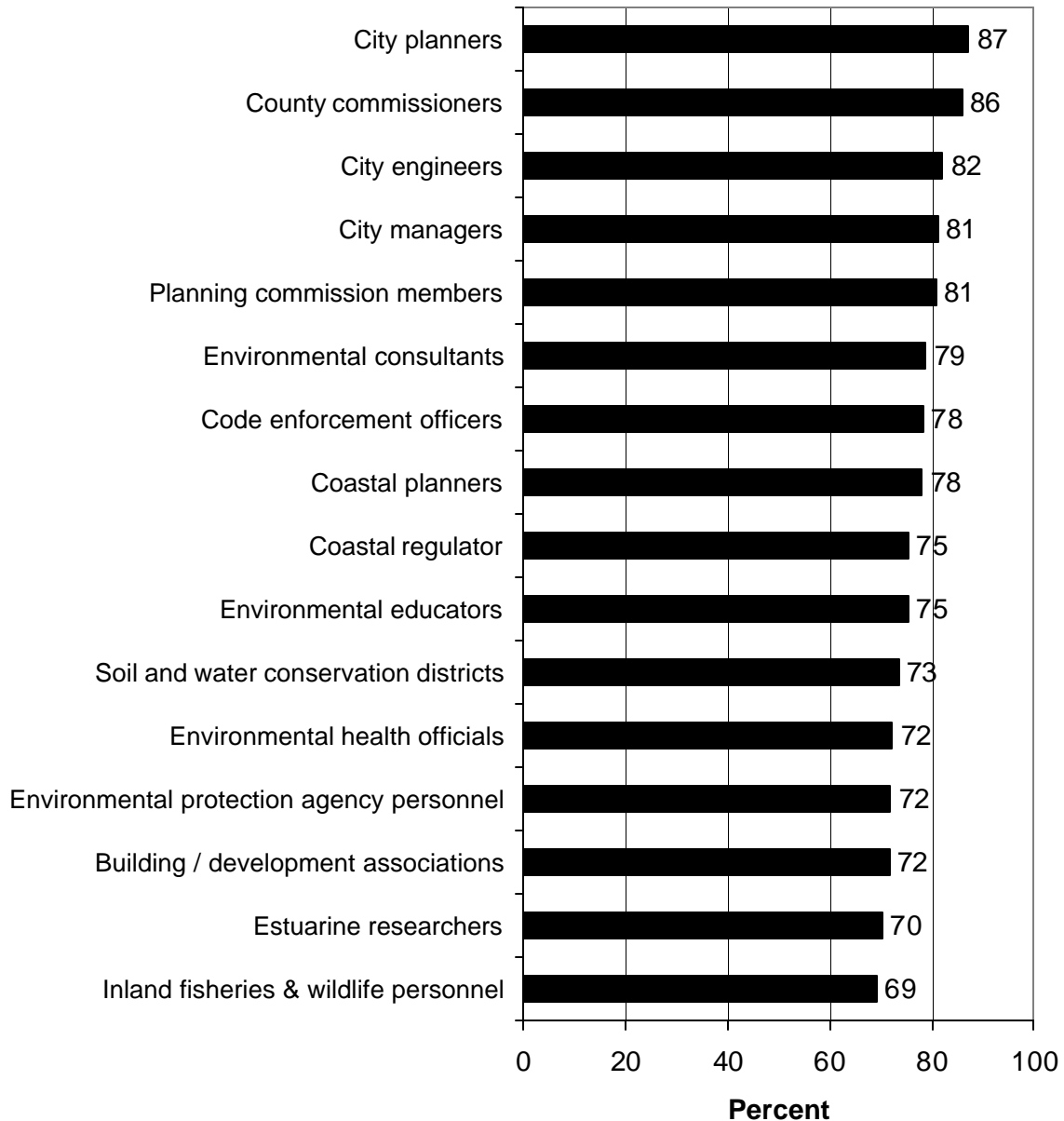
Percent who indicated there is a low need for additional coastal resource training or information in his or her coastal community. (Part 1.) (Needs Assessment)



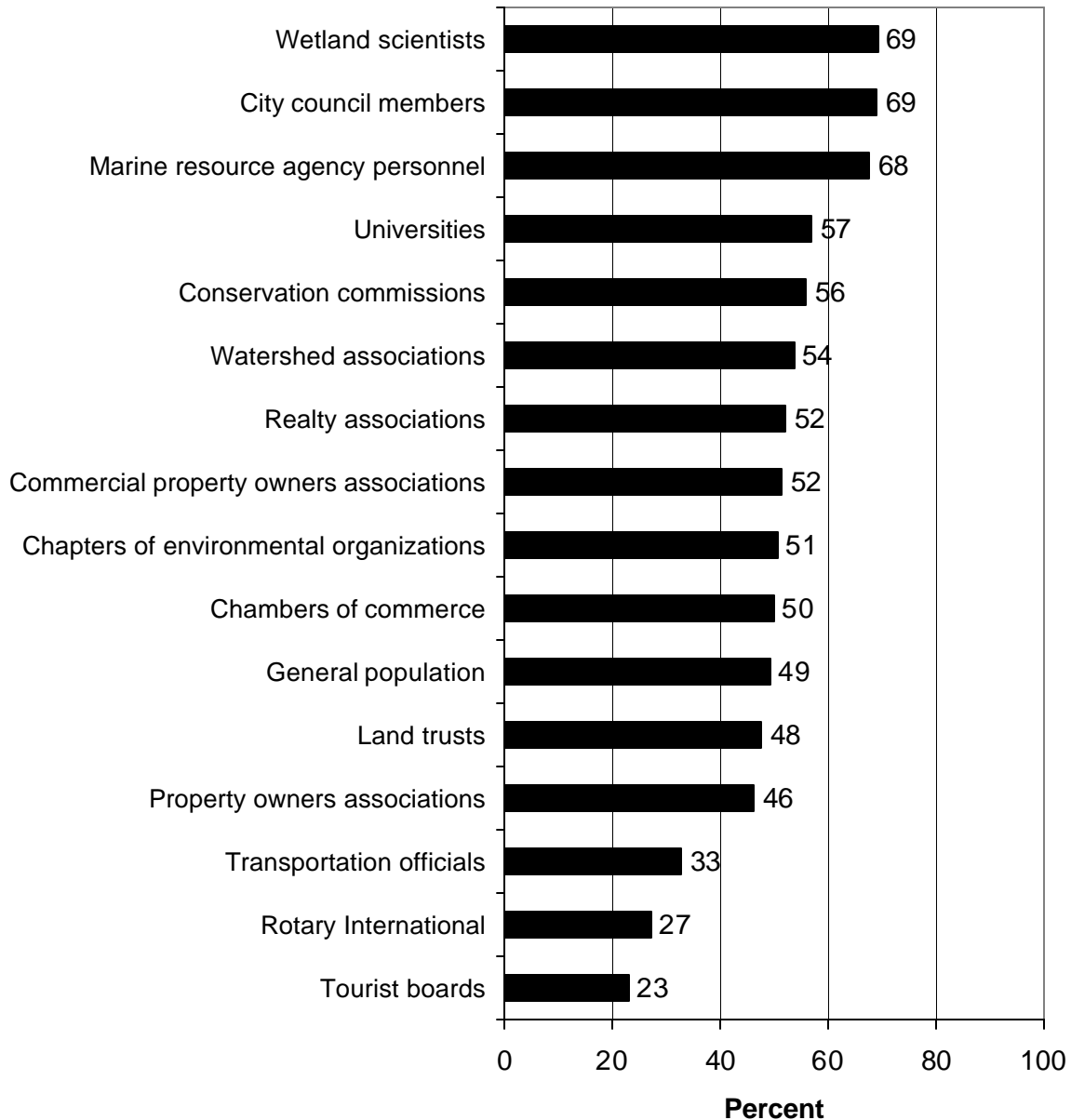
Percent who indicated there is a low need for additional coastal resource training or information in his or her coastal community. (Part 2.) (Needs Assessment)



Percent who indicated there is a high need for the following groups to receive coastal resource information and/or professional development in Georgia. (Part 1.) (Needs Assessment)



Percent who indicated there is a high need for the following groups to receive coastal resource information and/or professional development in Georgia. (Part 2.) (Needs Assessment)



Knowledge of and Opinions on Coastal Resource Issues

- The survey asked decision-makers a series of questions designed to assess training needs regarding a variety of coastal and natural resource issues and aspects of decision-making.
- Just over half of decision-makers (55%) had not received any training regarding local natural resources in the year prior to answering the survey.
- Despite that a majority of decision-makers had not received any training specific to local natural resources in the year prior to taking the survey, the large majority of decision-makers (81%) agree that they have applied what they have learned about local natural resources. Indeed, half of them (50%) *strongly* agree.
- Planners and planning commission members were asked about their awareness of alternatives to conventional zoning standards and whether they feel empowered to shape the future of their communities.
 - Three-quarters of planners and planning commission members (75%) indicated being aware of alternatives to conventional zoning standards.
 - The overwhelming majority of planners and planning commission members (94%) agree that they feel empowered to shape the future of their communities; 61% *strongly* agree.
- When asked to rate the current availability of technology with regard to coastal management within their respective communities, 41% of decision-makers describe it as “good,” while 45% describe it as “fair,” and 12% rate it “poor” or “very poor.”
 - Only 1% of decision-makers rate the current availability of technology as “excellent.”
- When asked to rate the current availability of staff for coastal management within their respective communities, 41% of decision-makers describe it as “good,” while 34% describe it as “fair.”
 - Over a fifth of decision-makers (23%) describe the availability of staff in their communities as “poor,” while just 1% think it is excellent.

- Decision-makers were asked whether or not they agree that they feel sufficiently aware of funding for projects, workshops, seminars, and other coastal management activities within their communities. Just under half of decision-makers (48%) agree that they do, with only 1% who *strongly* agree.
 - More than a quarter of decision-makers (27%) disagree that they feel sufficiently aware of funding for coastal management activities, with 16% who *strongly* disagree.

- Decision-makers were asked if they thought the overall quality of the environment in their coastal communities has in the past two years improved, stayed the same, or gotten worse. The majority of respondents (55%) said that the environment in their coastal community has stayed the same; otherwise, the remainder were split between saying it improved (25%) and saying it has gotten worse (21%).

- Decision-makers were asked to choose from a list of six options describing what first comes to mind when they think about growth in and around their communities: the options were “more jobs,” “increased congestion,” “more shopping and entertainment opportunities,” “environmental problems,” “the need to manage growth to protect quality of life,” and “increased tax burdens on existing residents.” Most commonly, decision-makers thought of “the need to manage growth to protect quality of life” (45%), followed by “increased congestion” (24%), and “more jobs” (21%).

- Nearly all decision-makers (96%) agree that what is done on land impacts nearby bodies of water, with 87% *strongly* agreeing.

- Decision-makers were asked whether or not they agree that buffers encroach on the property rights of riparian landowners. While 42% of respondents agree that buffers encroach on the property rights of riparian landowners, a third of respondents (33%) disagreed.

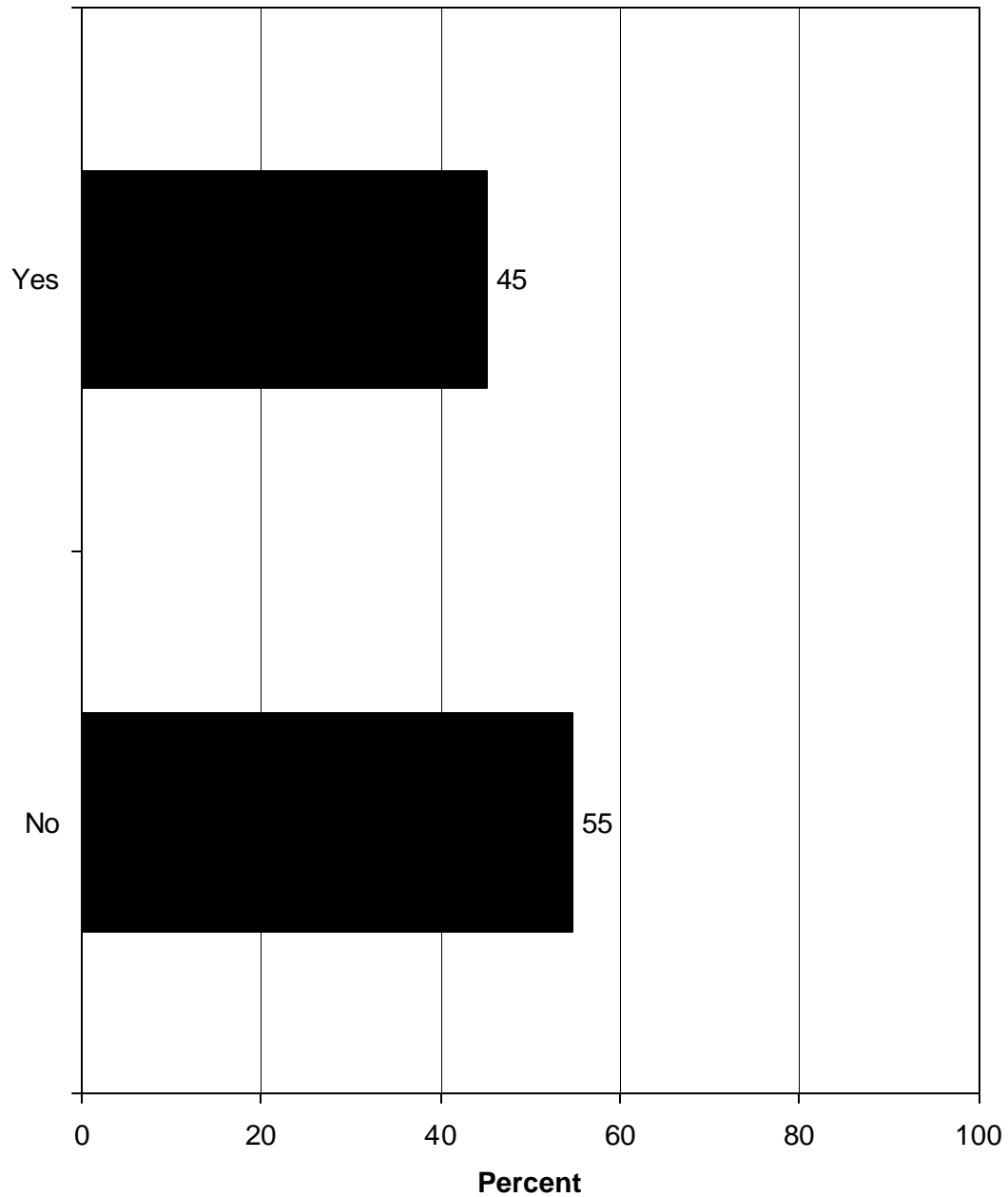
- Over two-thirds of decision-makers (69%) agree that their respective communities have adequate access to waterways, with 24% of them *strongly* agreeing.

- The overwhelming majority of decision-makers (94%) indicated being familiar with the local codes, ordinances, and regulations in their communities, with 43% describing themselves as *very* familiar.
- The survey asked about respondents' familiarity with two items pertaining to water quality in Georgia, the Total Maximum Daily Load Program and the 303(d) List. While the majority of decision-makers (60%) are familiar with the Total Maximum Daily Load Program (with 32% being *very* familiar), just 42% said that they are familiar with the 303(d) List (with 17% being *very* familiar).
 - The majority of decision-makers (58%) said that they are not at all familiar with Georgia's 303(d) List.
- Regarding familiarity with native animal and plant species in their coastal communities, 86% of decision-makers said that they are familiar with their native animal species (with 34% being *very* familiar), while 88% of decision-makers said that they are familiar with the native plant species in their communities (29% of them are *very* familiar).
- The survey asked about the natural and historic needs that decision-makers felt needed more attention within their coastal communities. Most commonly, decision-makers gave an answer relating to protection from over-development (57%), followed by preservation and maintenance of historic sites (30%). The third most common answer (10%) concerned the protection and maintenance of community water resources.
- Decision-makers were asked who they contact for assistance or information on local codes, ordinances, and regulations in their coastal communities. Most commonly, decision-makers said that they contact planning/zoning commissions (23%) and (non-specific) city/county officials (21%). The other top answers were city/county managers (16%), city/county attorneys (15%), and the Georgia Department of Natural Resources (10%).
- The survey asked respondents to describe the purpose of buffers on water quality. Most commonly, decision-makers said that buffers prevent runoff (34%), followed by acting as

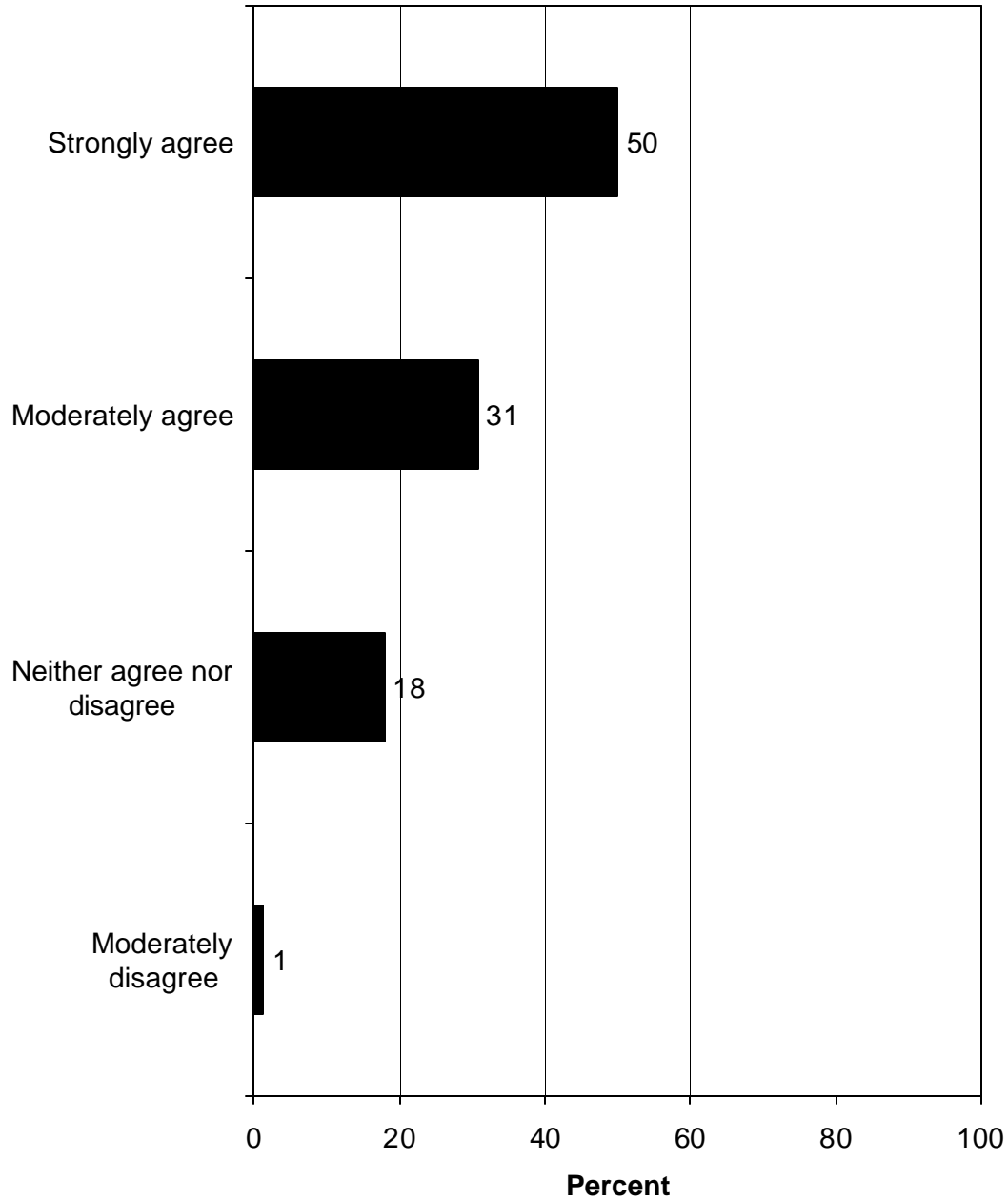
filters/filtration (33%). The other top answers included preventing silt/siltation (19%) and preventing erosion (12%).

- The survey asked respondents to describe any changes in their local environments they had seen in the past two years. Most commonly, decision-makers named increased/over-development (36%), followed by improved water management (25%) and loss of greenspace/open space (17%).
- Decision-makers were asked whether or not they agree that there is enough available coastal resource professional development for decision-makers in the state of Georgia. Just over a fifth of respondents (23%) agree that there is (with 5% *strongly* agreeing), while over a quarter of respondents (26%) disagree (with 5% *strongly* disagreeing).
 - Half the respondents neither agree nor disagree that there is enough available coastal resource professional development for decision-makers in the state of Georgia, suggesting low levels of basic awareness regarding opportunities for coastal resource professional development.
- Decision-makers were asked whether or not they agree that there are enough coastal resource professional development providers that offer training for coastal decision-makers in Georgia. Just 15% of respondents agree that there are (with 4% *strongly* agreeing), while 27% disagree (with 5% *strongly* disagreeing).
 - The majority of decision-makers (58%) neither agree nor disagree that there are enough coastal resource professional development providers that offer training in Georgia.
- The survey asked decision-makers what they feel are the primary inhibiting factors preventing change and advancement in their communities. Lack of funding (65%) was the most common response, followed by lack of training/expertise (49%).
 - More than a third of respondents consider lack of cooperation among agencies/organizations (37%) and lack of staff/personnel (34%) to be primary inhibiting factors.

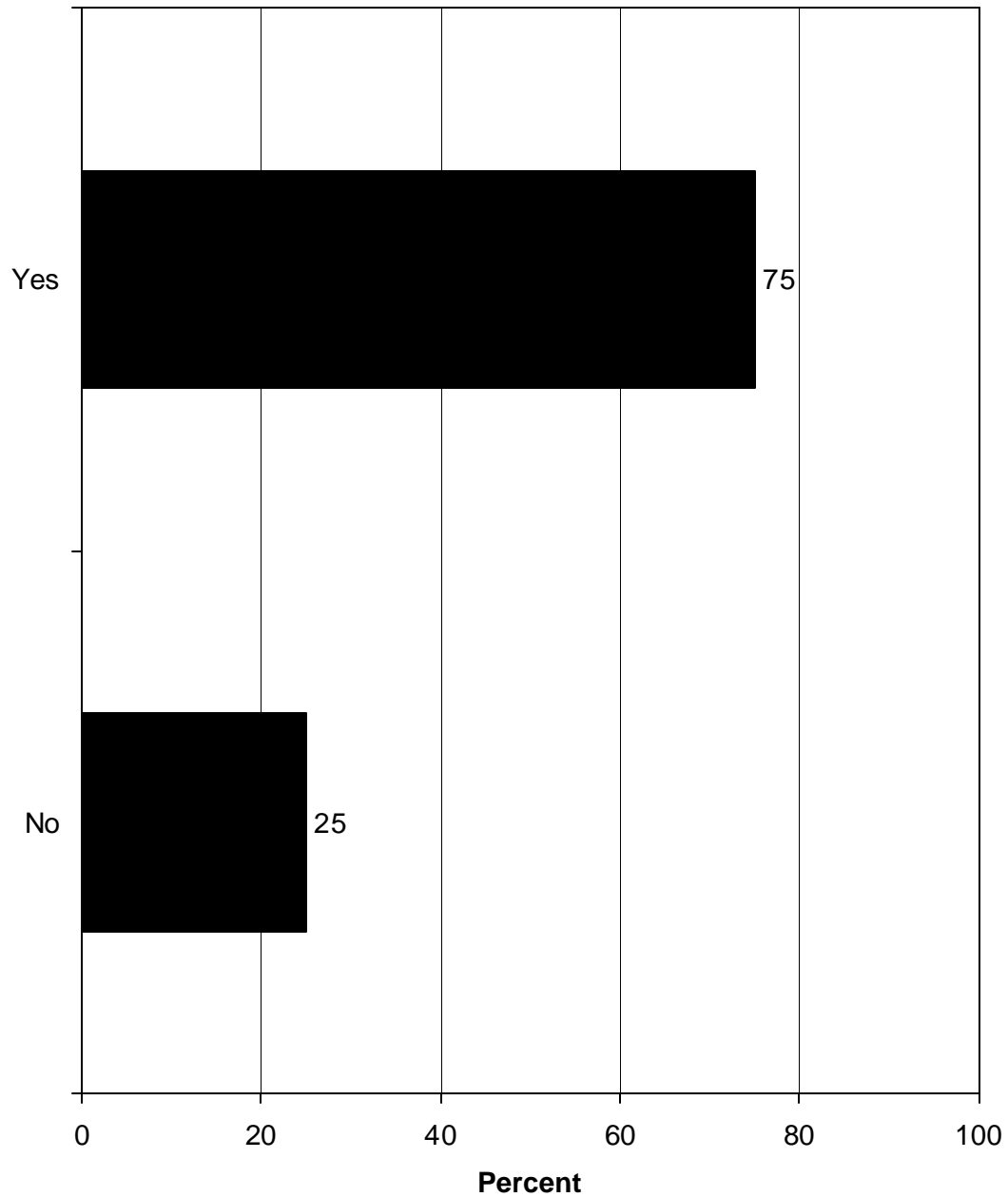
Have you received any training regarding local natural resources in the past year? (Needs Assessment)



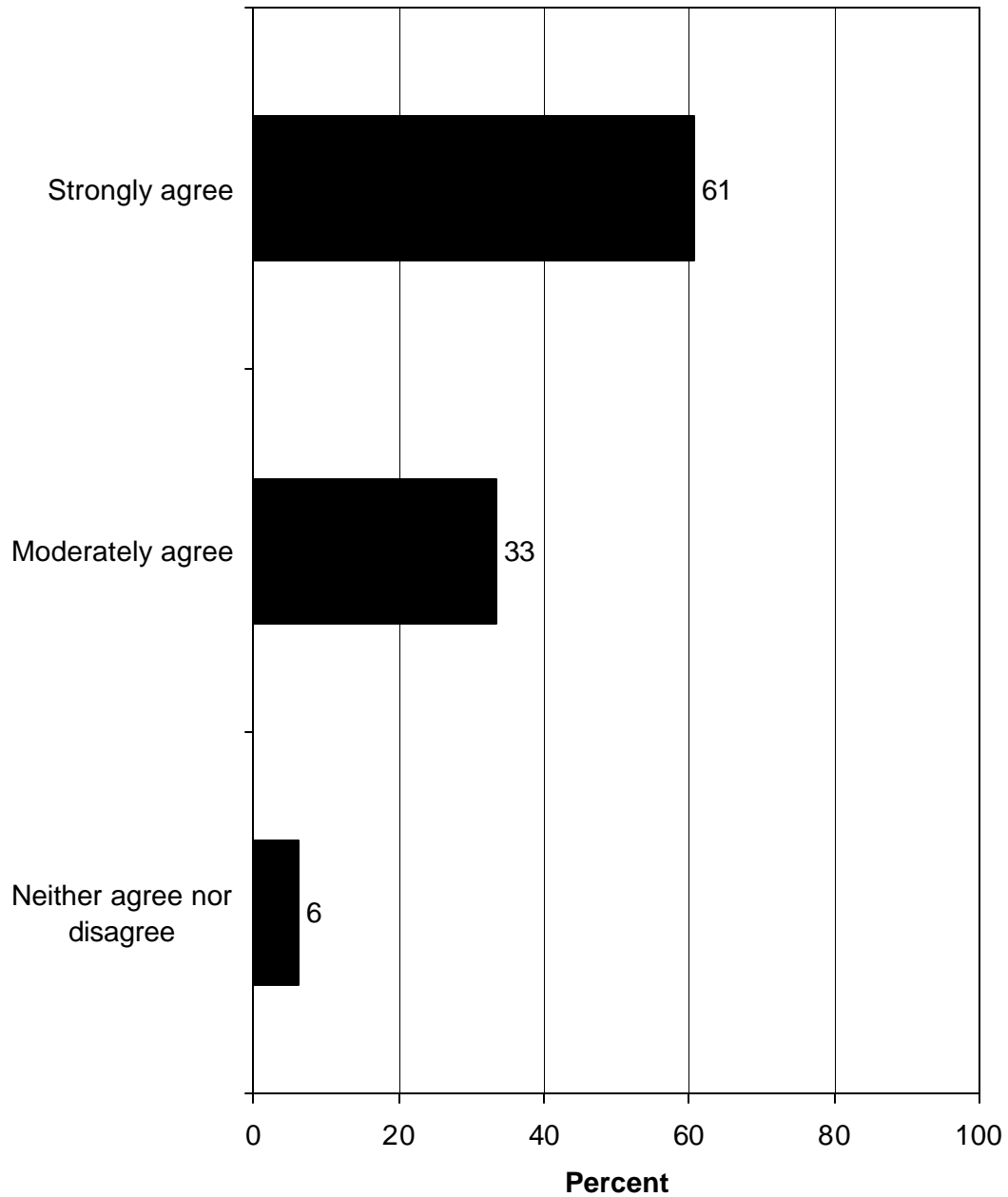
Do you agree or disagree that you have applied what you've learned with regard to local natural resources in your job and/or your decision-making? (Needs Assessment)



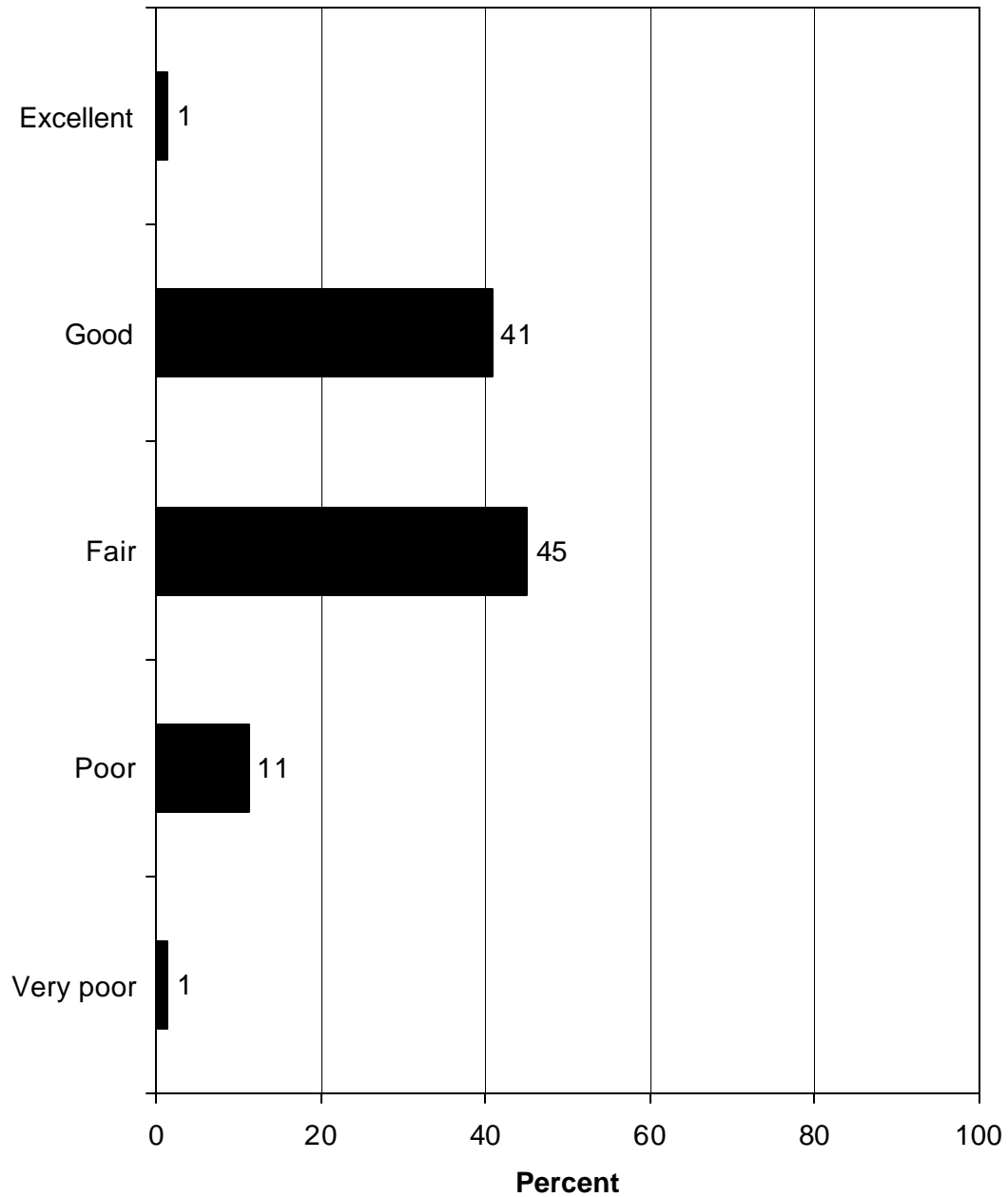
Are you aware of alternatives to conventional zoning standards? (Needs Assessment)



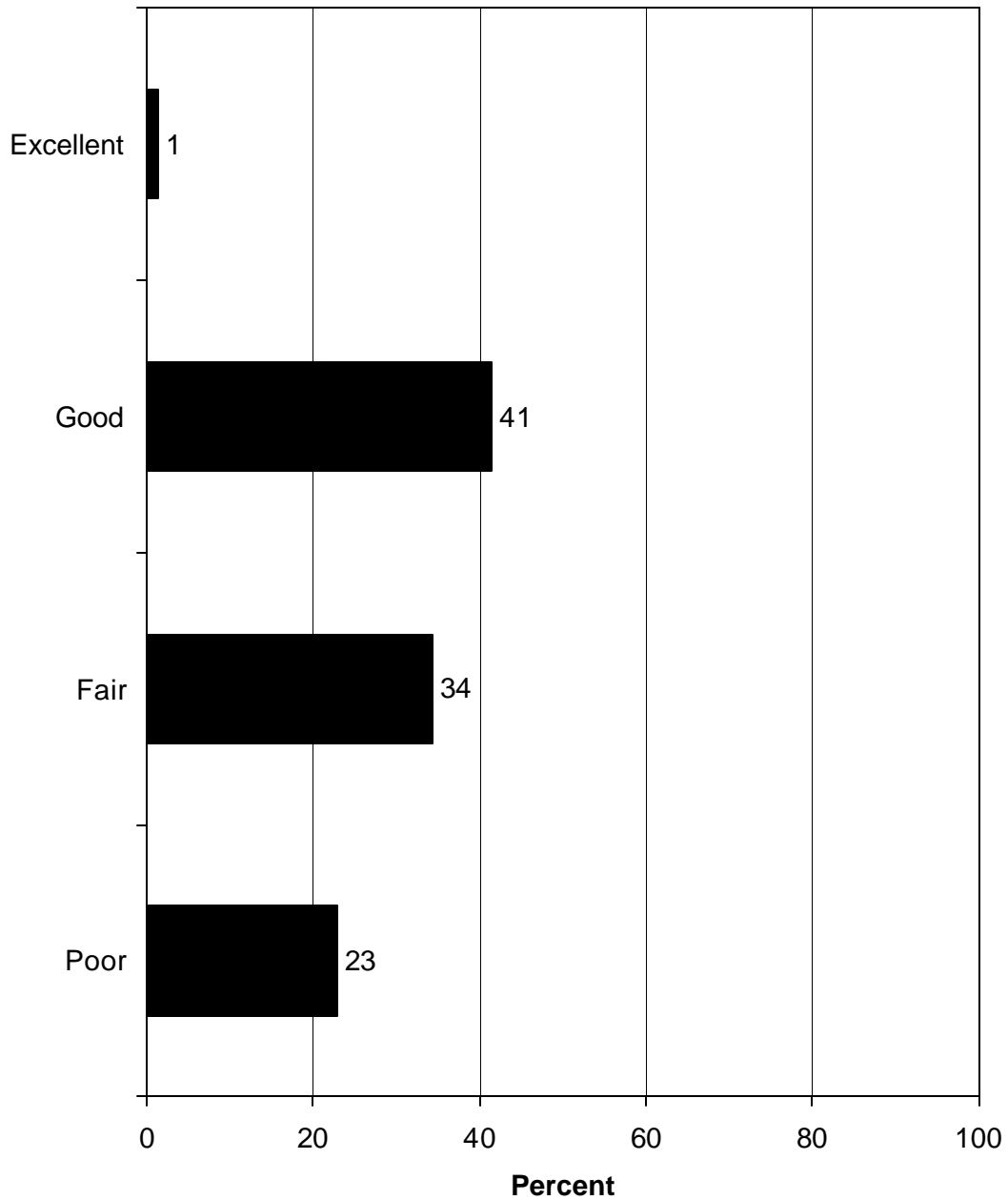
Do you agree or disagree that you feel empowered to shape the future of your community? (Needs Assessment)



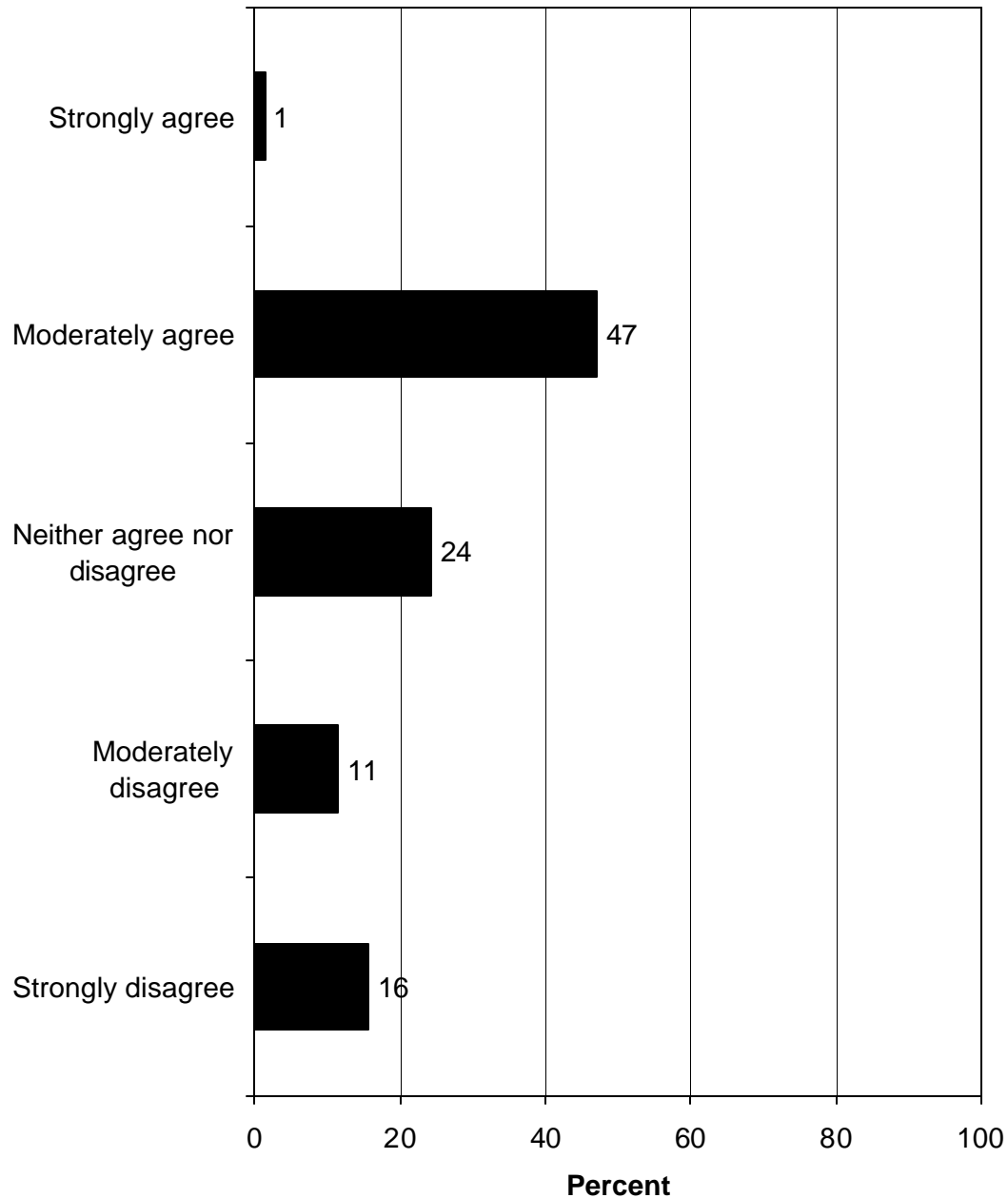
How would you rate the current availability of technology with regard to coastal management within your community? (Needs Assessment)



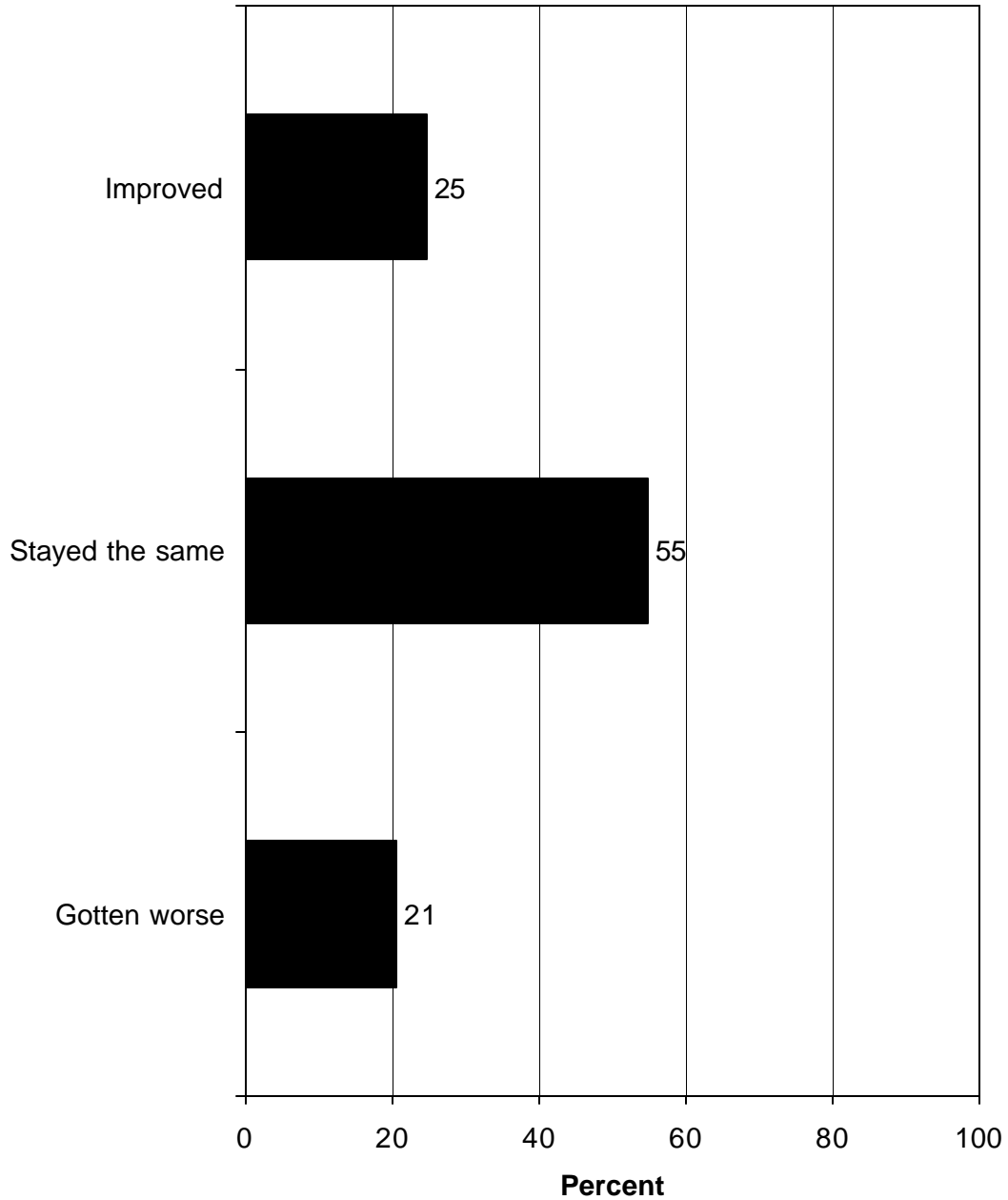
How would you rate the current availability of staff with regard to coastal management within your community? (Needs Assessment)



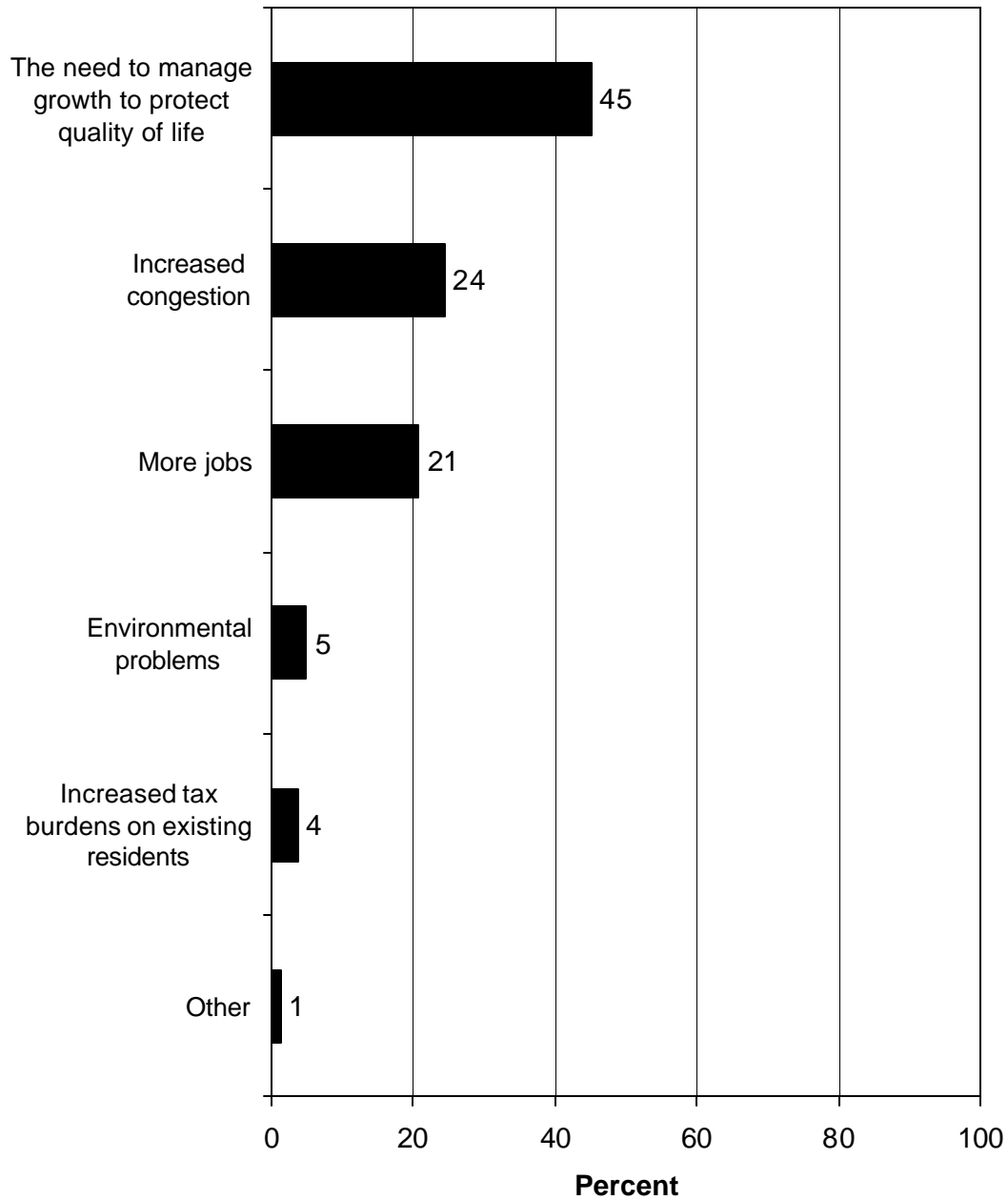
Do you agree or disagree that you have sufficient awareness of funding for projects, workshops, seminars and other coastal management activities within your community? (Needs Assessment)



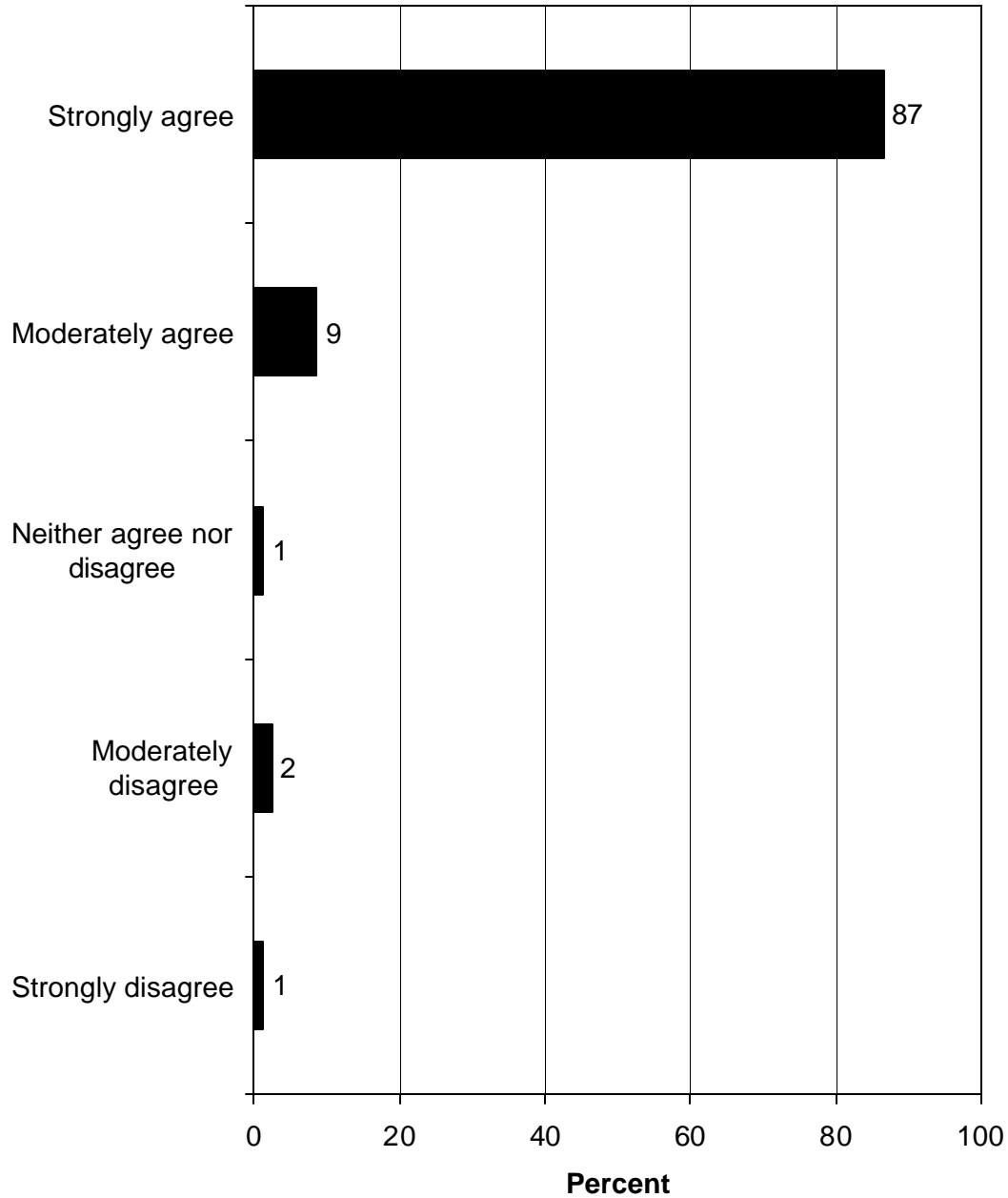
In the past two years, would you say the overall quality of the environment in your coastal community has improved, stayed the same, or gotten worse? (Needs Assessment)



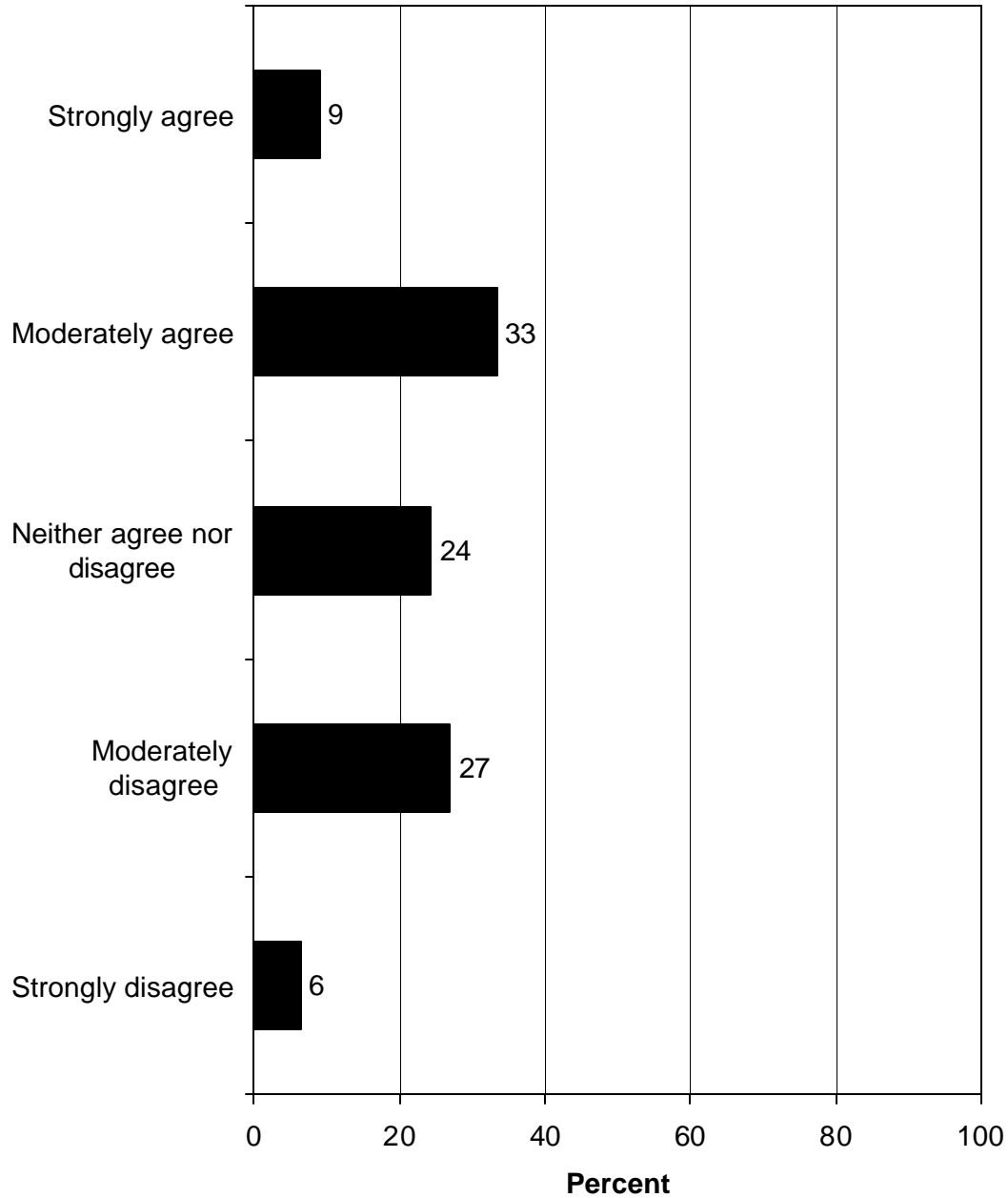
What first comes to mind when you think about growth in and around your community? (Needs Assessment)



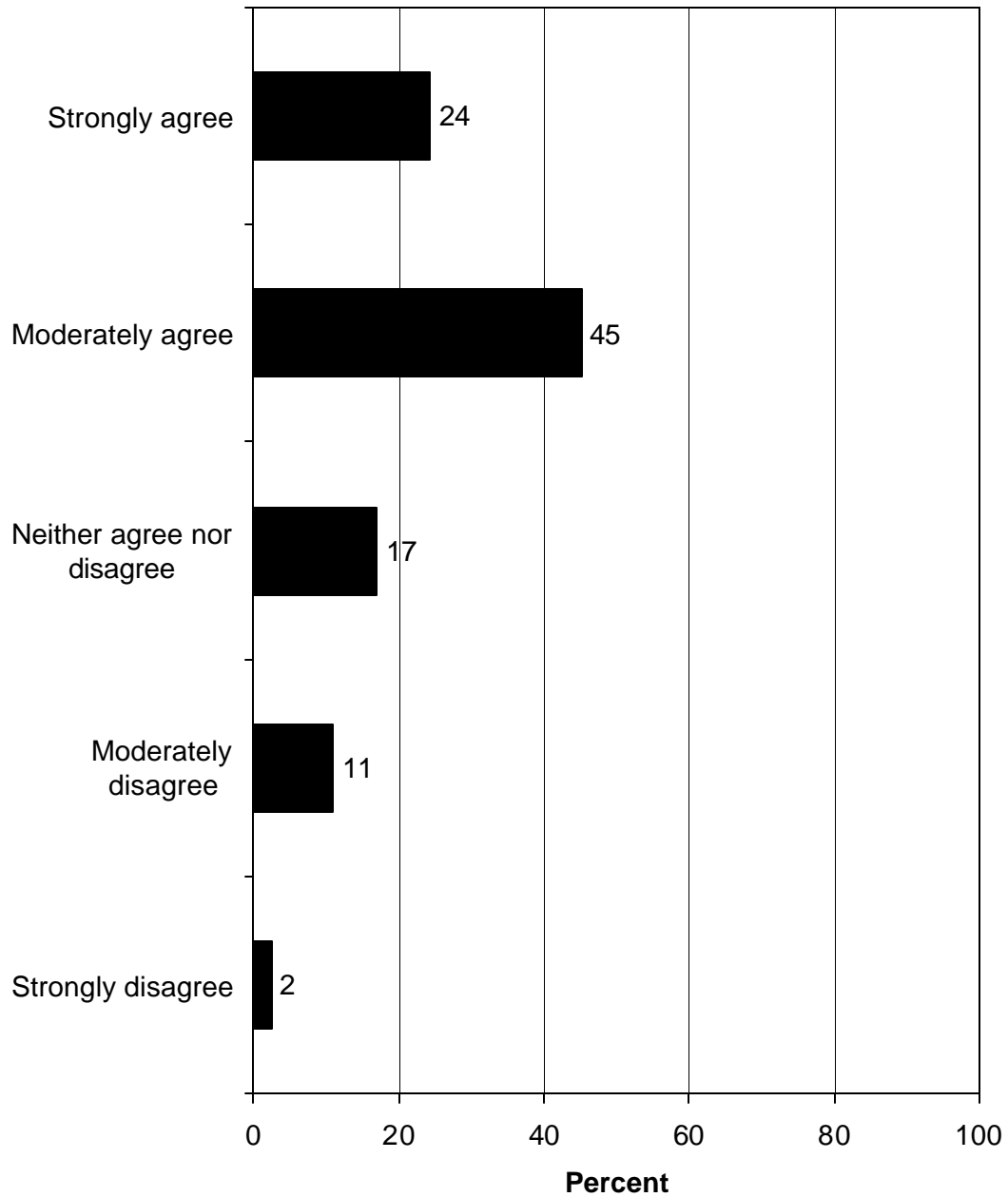
Do you agree or disagree that what is done on land impacts nearby bodies of water? (Needs Assessment)



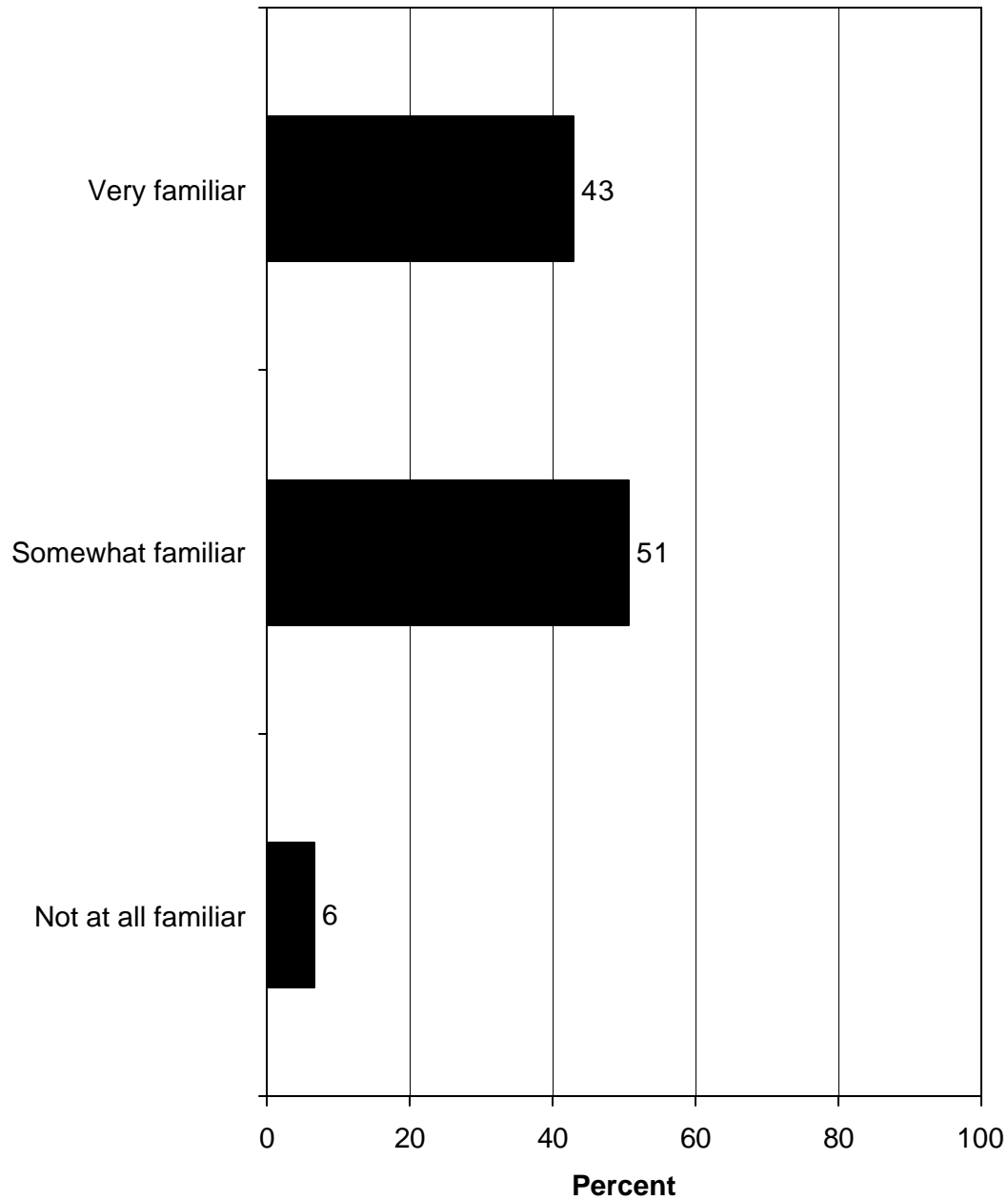
Do you agree or disagree that buffers encroach on the property rights of riparian landowners? (Needs Assessment)



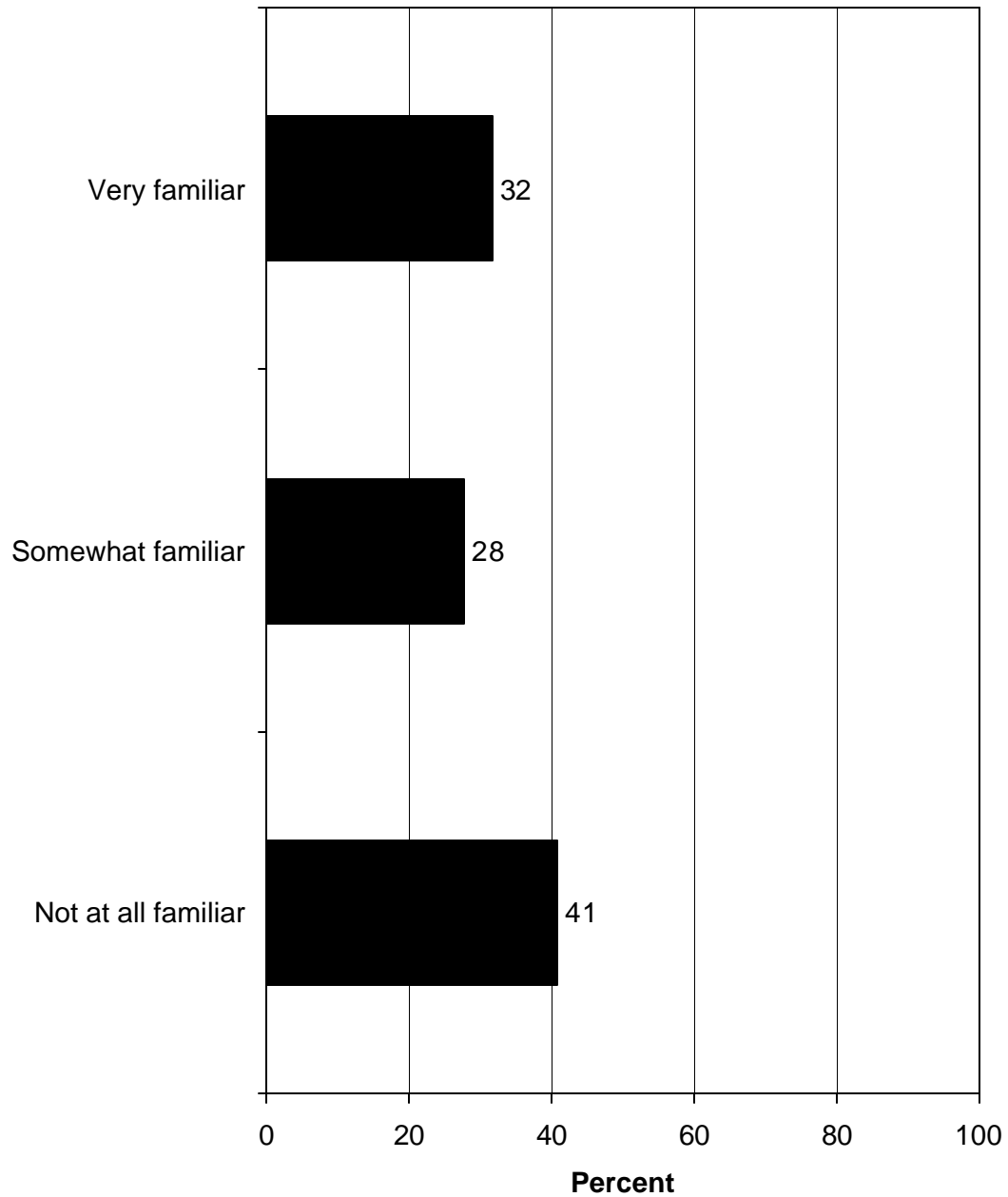
Do you agree or disagree that your community has adequate access to waterways? (Needs Assessment)



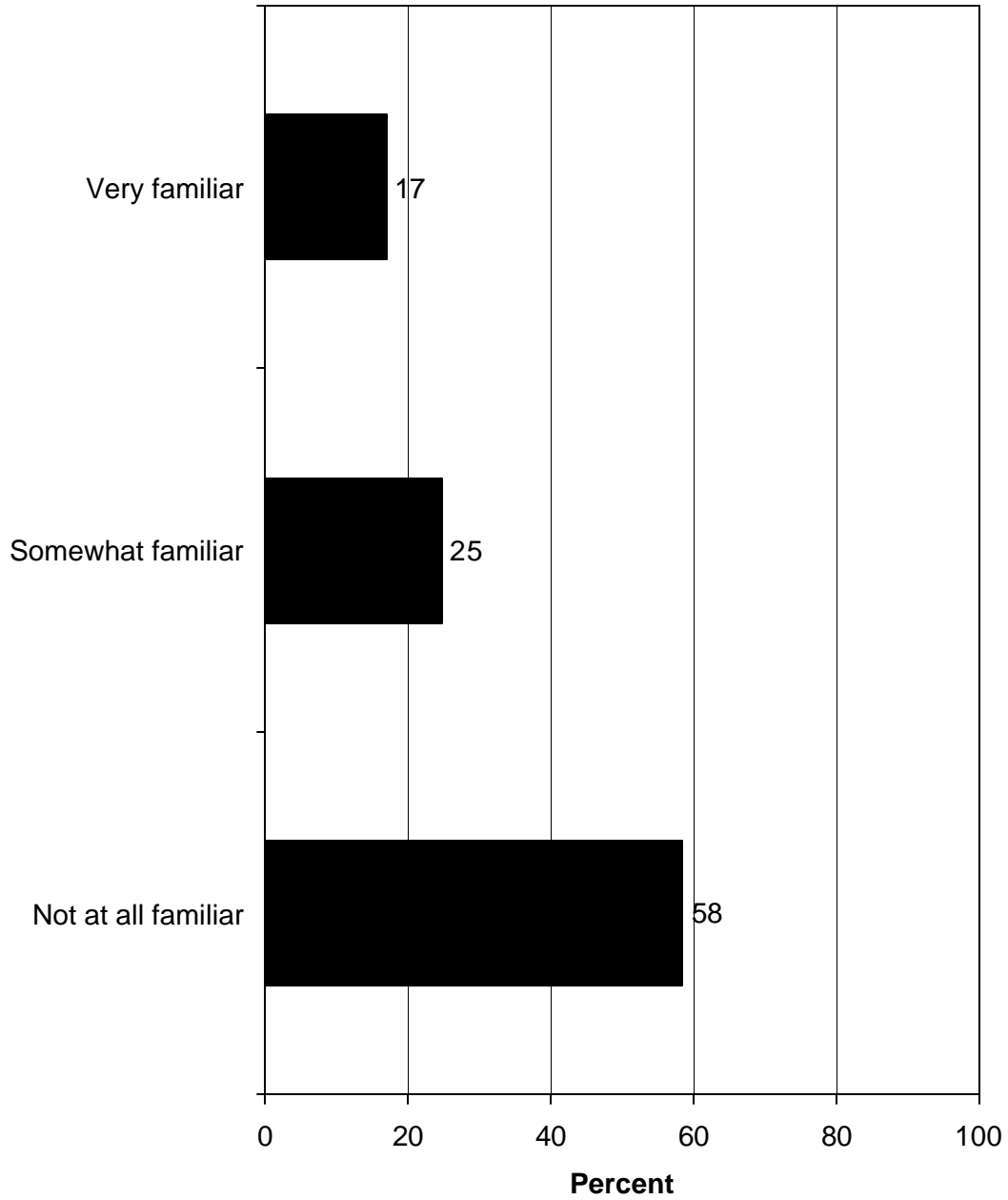
Are you very, somewhat, or not at all familiar with the local codes, ordinances and regulations in your coastal community? (Needs Assessment)



Before this survey, were you very familiar, somewhat familiar, or not at all familiar with the Total Maximum Daily Load program? (Needs Assessment)



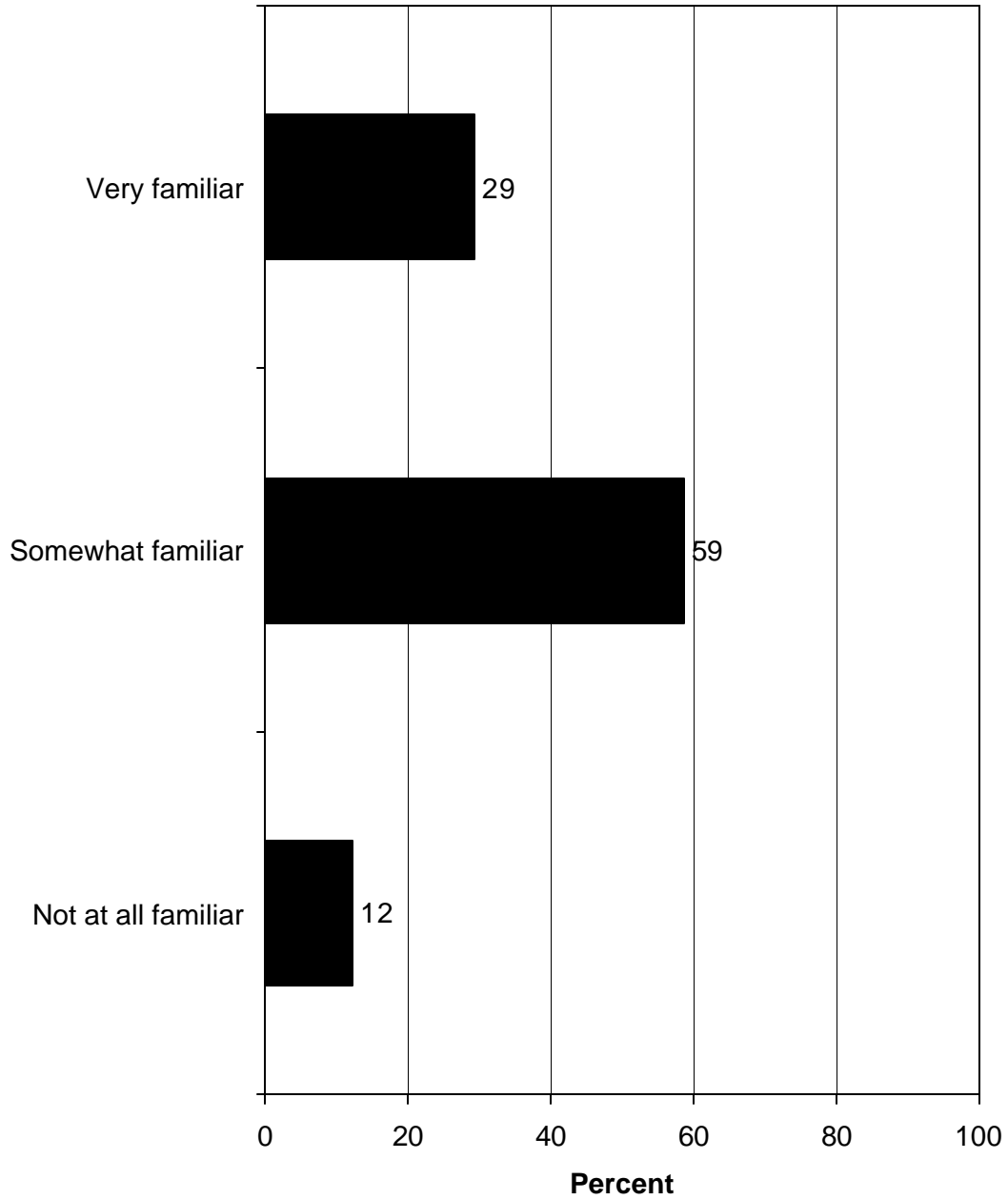
Before this survey, were you very familiar, somewhat familiar, or not at all familiar with Georgia's 303(d) List? (Needs Assessment)



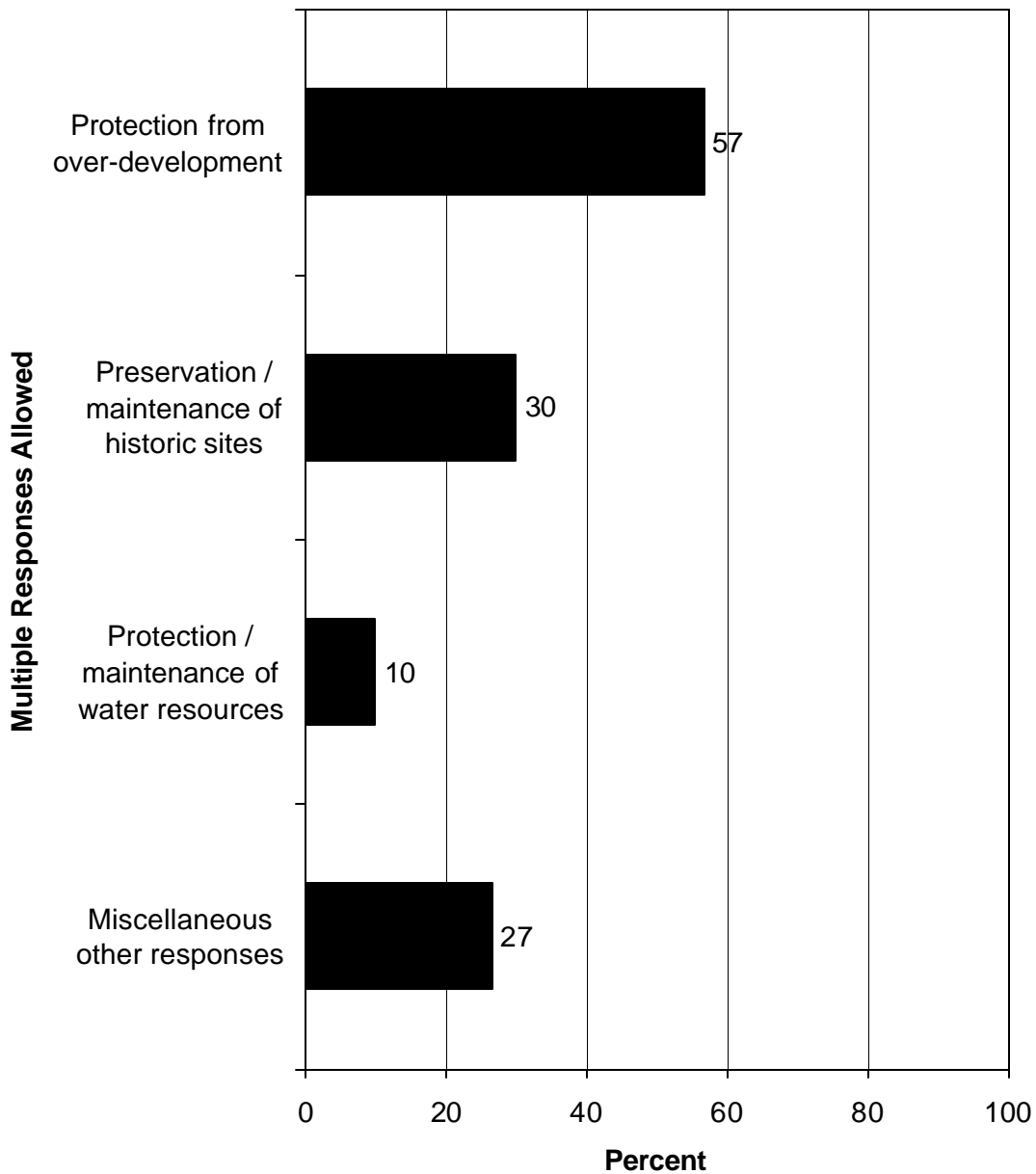
Are you very, somewhat, or not at all familiar with the native animal species in your coastal community? (Needs Assessment)



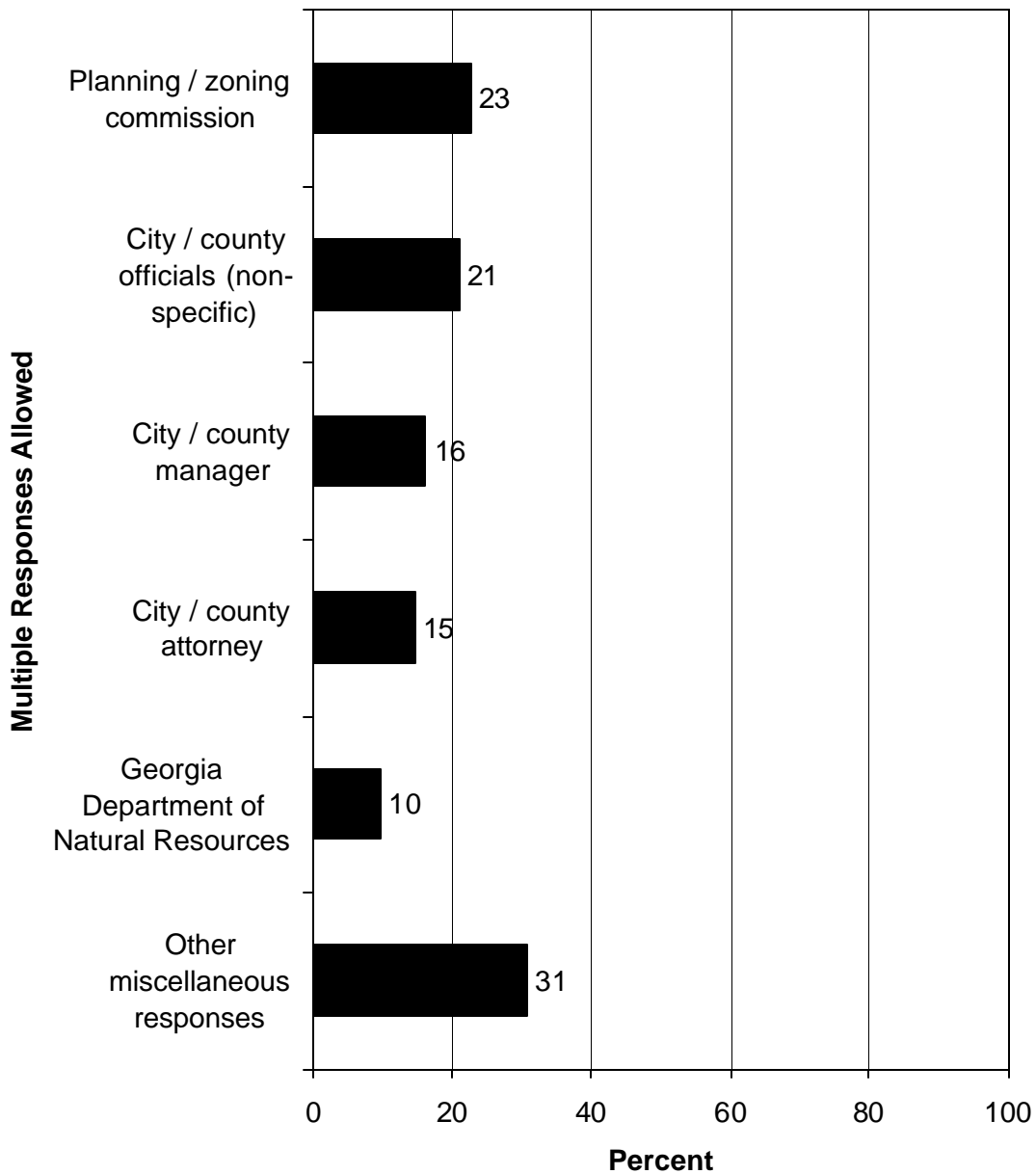
Are you very, somewhat, or not at all familiar with the native plant species in your coastal community? (Needs Assessment)



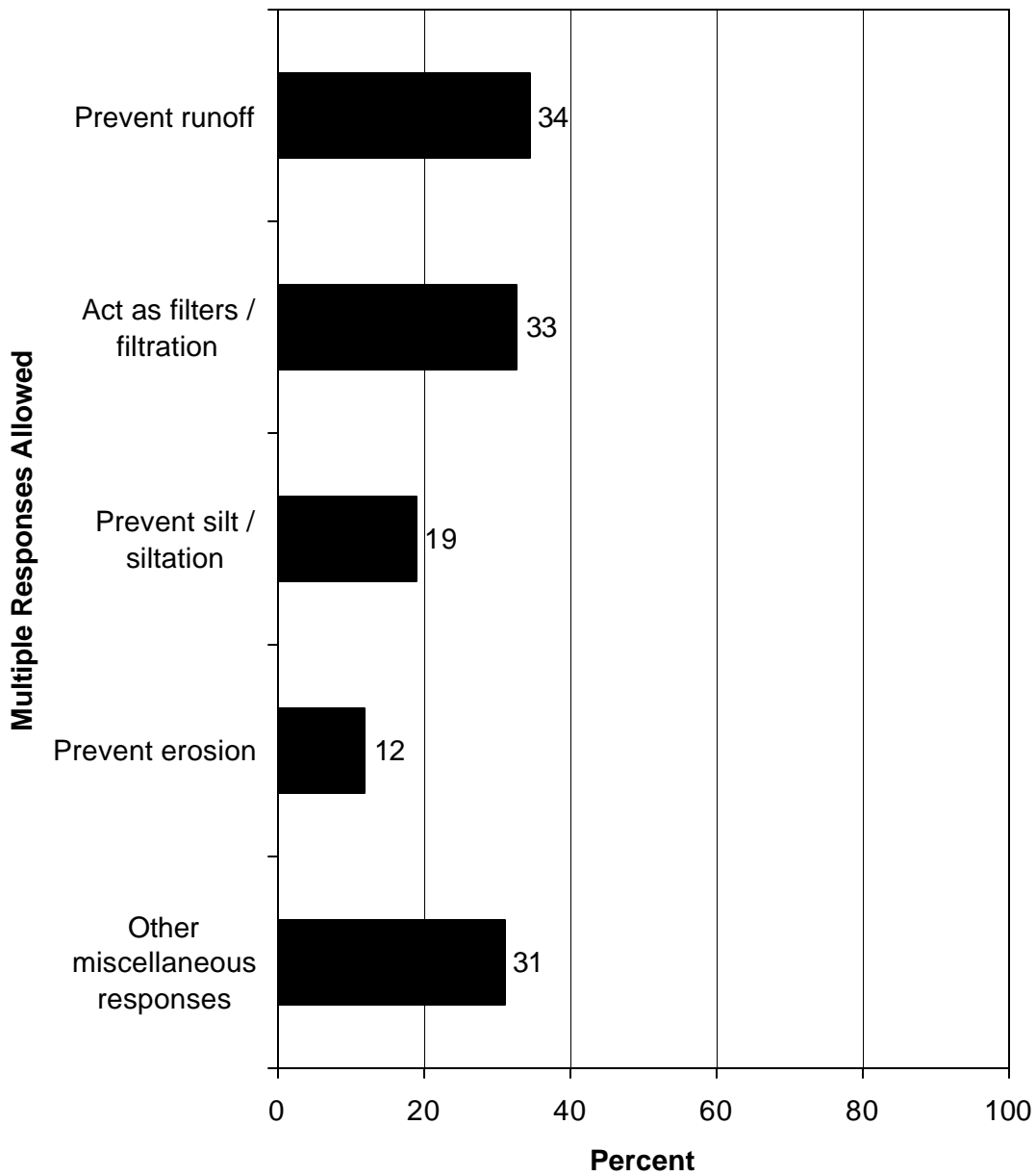
What are the natural and/or historic needs that you feel need more attention within your coastal community? (Needs Assessment)



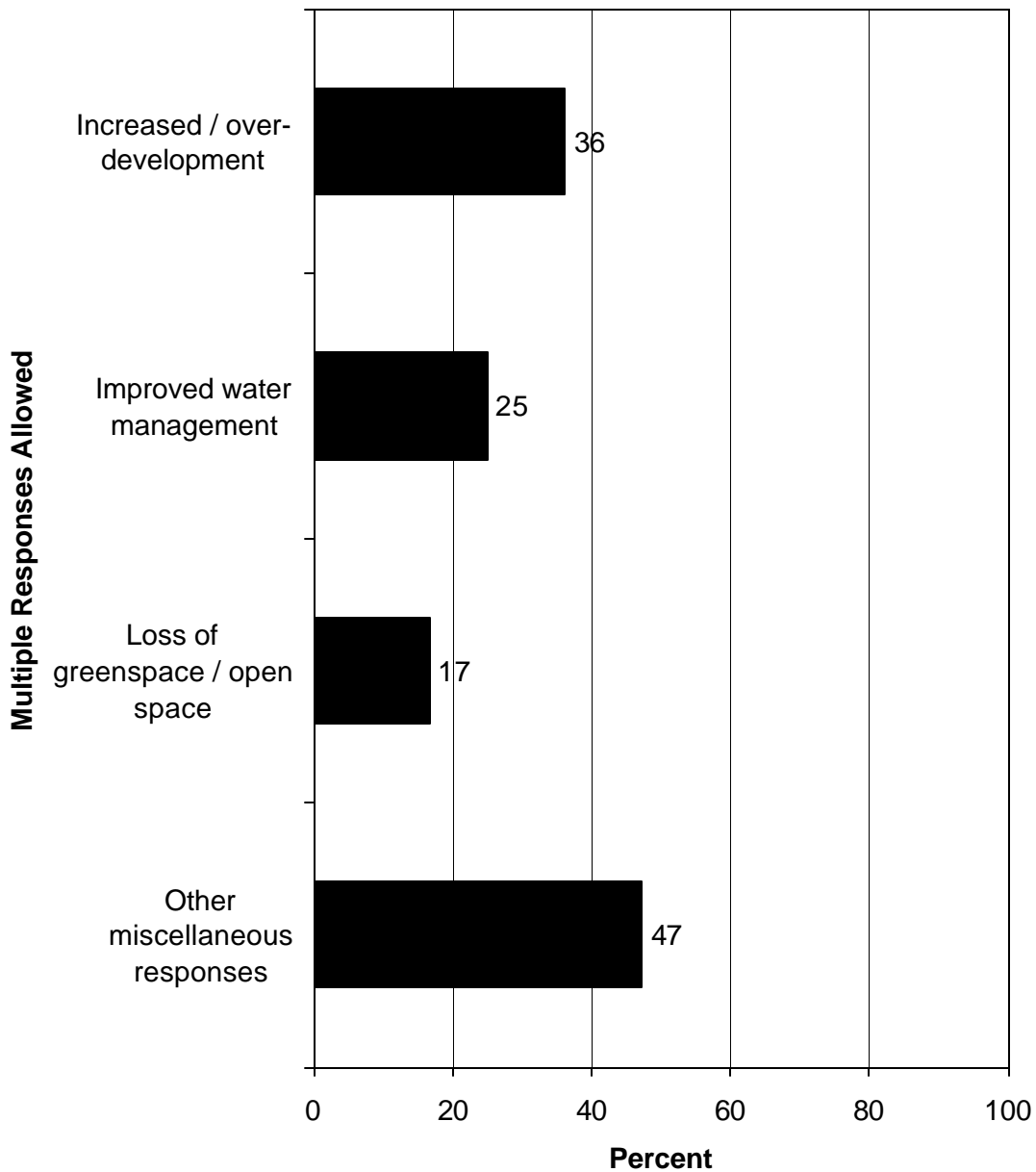
Who do you contact for assistance or information on local codes, ordinances and regulations in your coastal community? (Needs Assessment)



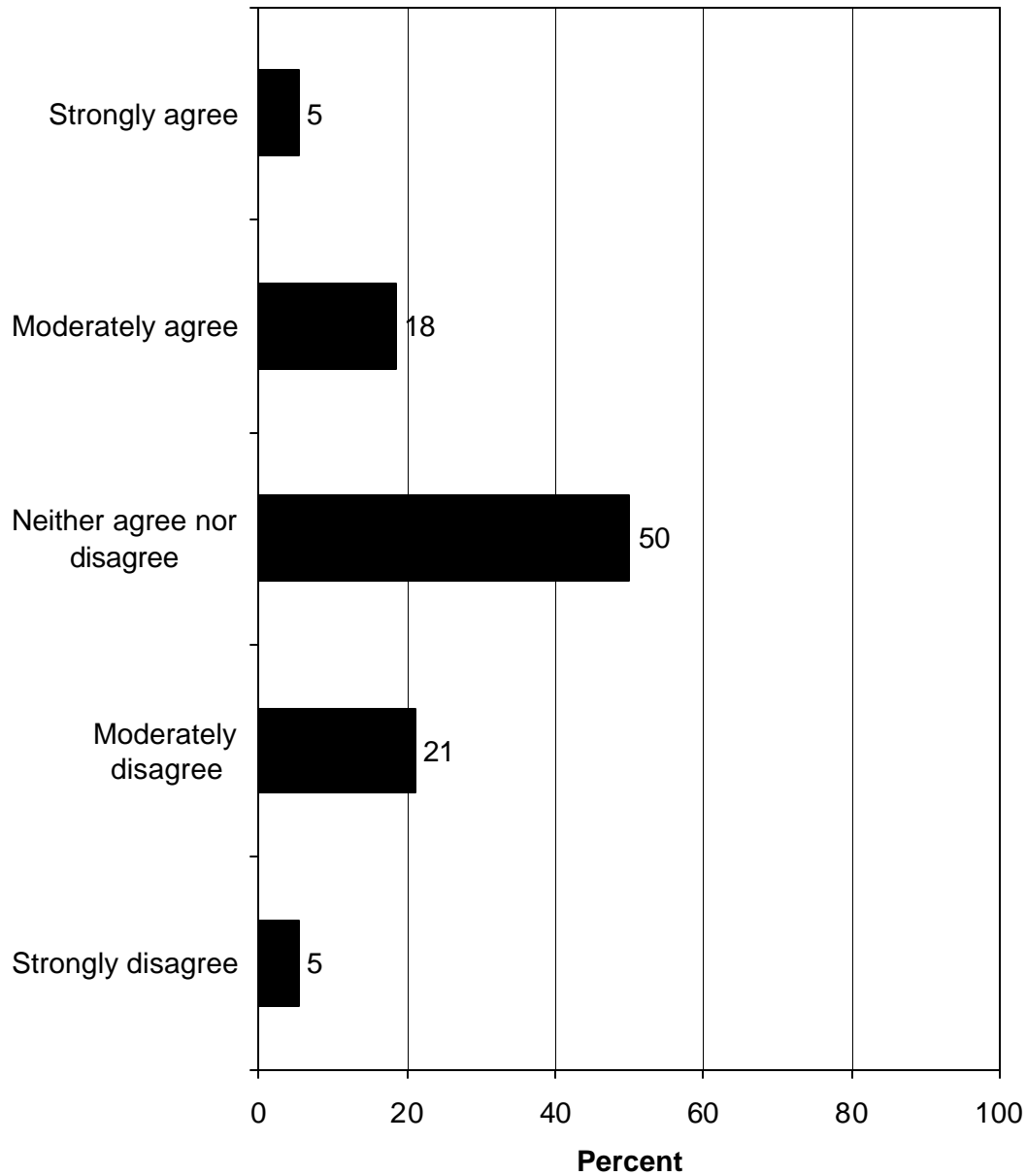
What purpose do buffers serve on water quality? (Needs Assessment)



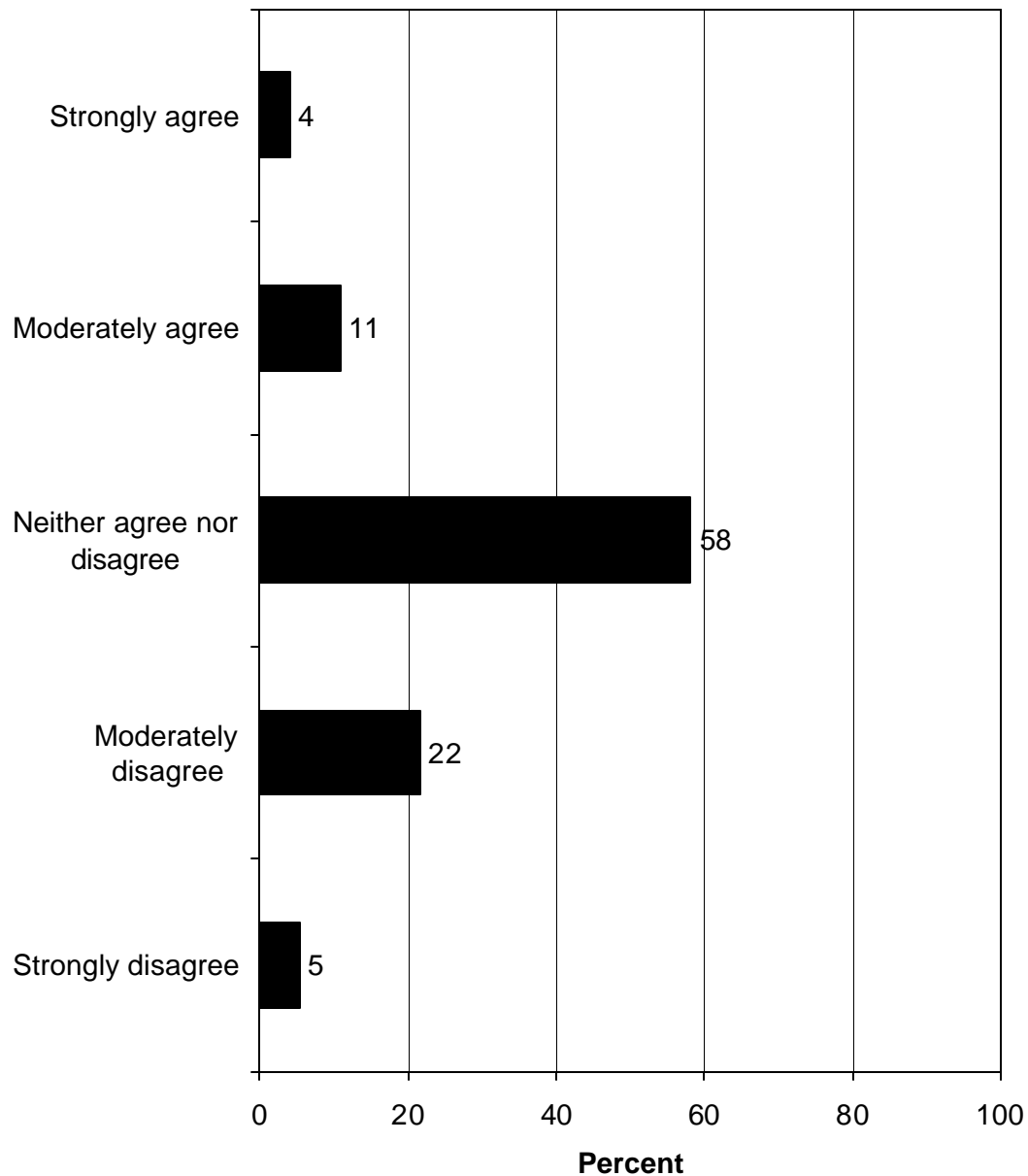
**Please describe any changes you have seen in
your local environment in the past two years.
(Needs Assessment)**



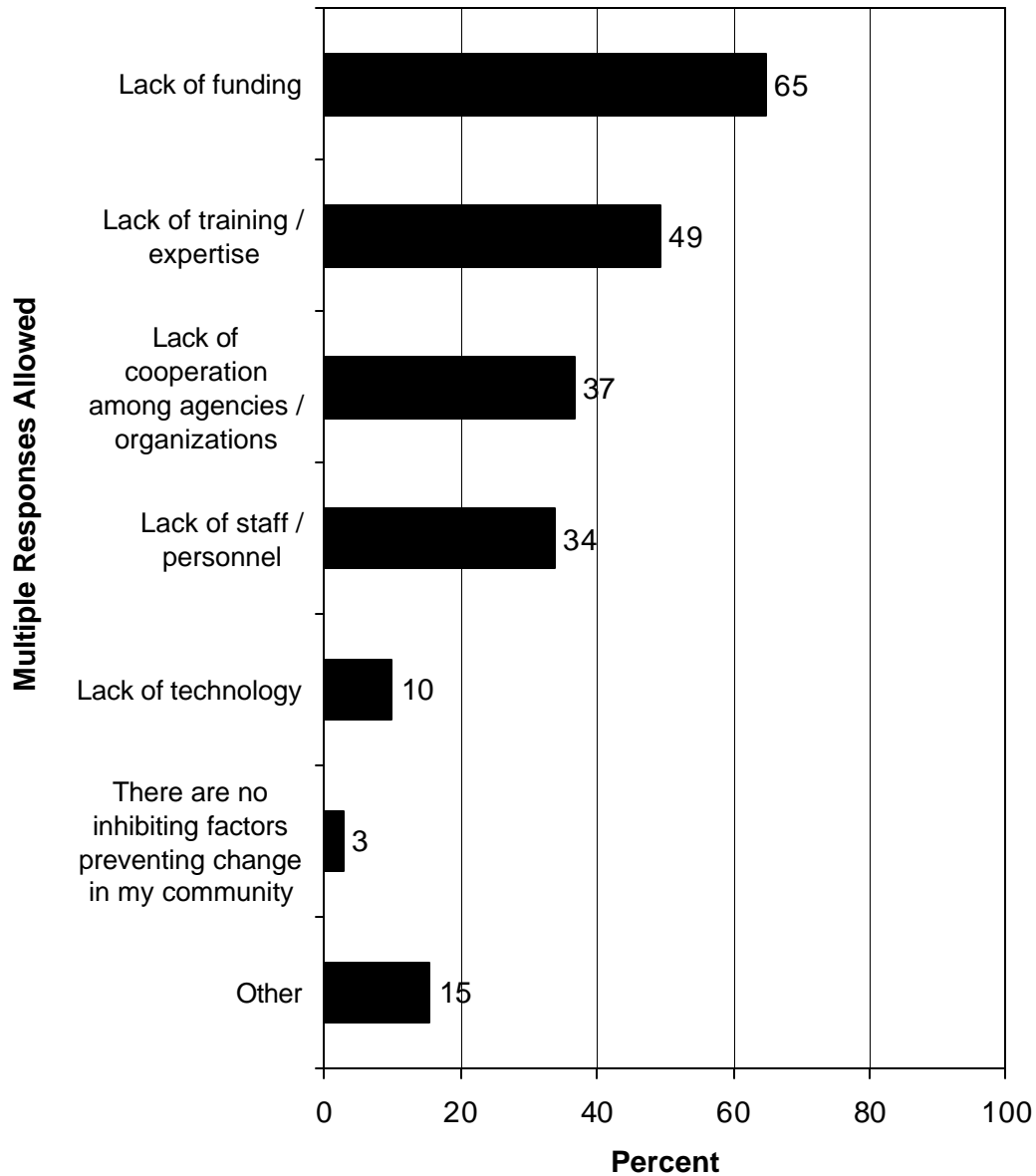
Overall, do you agree or disagree that there is enough available coastal resource professional development for coastal resource decision-makers in the state of Georgia? (Needs Assessment)



Overall, do you agree or disagree that there are enough coastal resource professional development providers that offer training for coastal decision-makers in Georgia? (Needs Assessment)



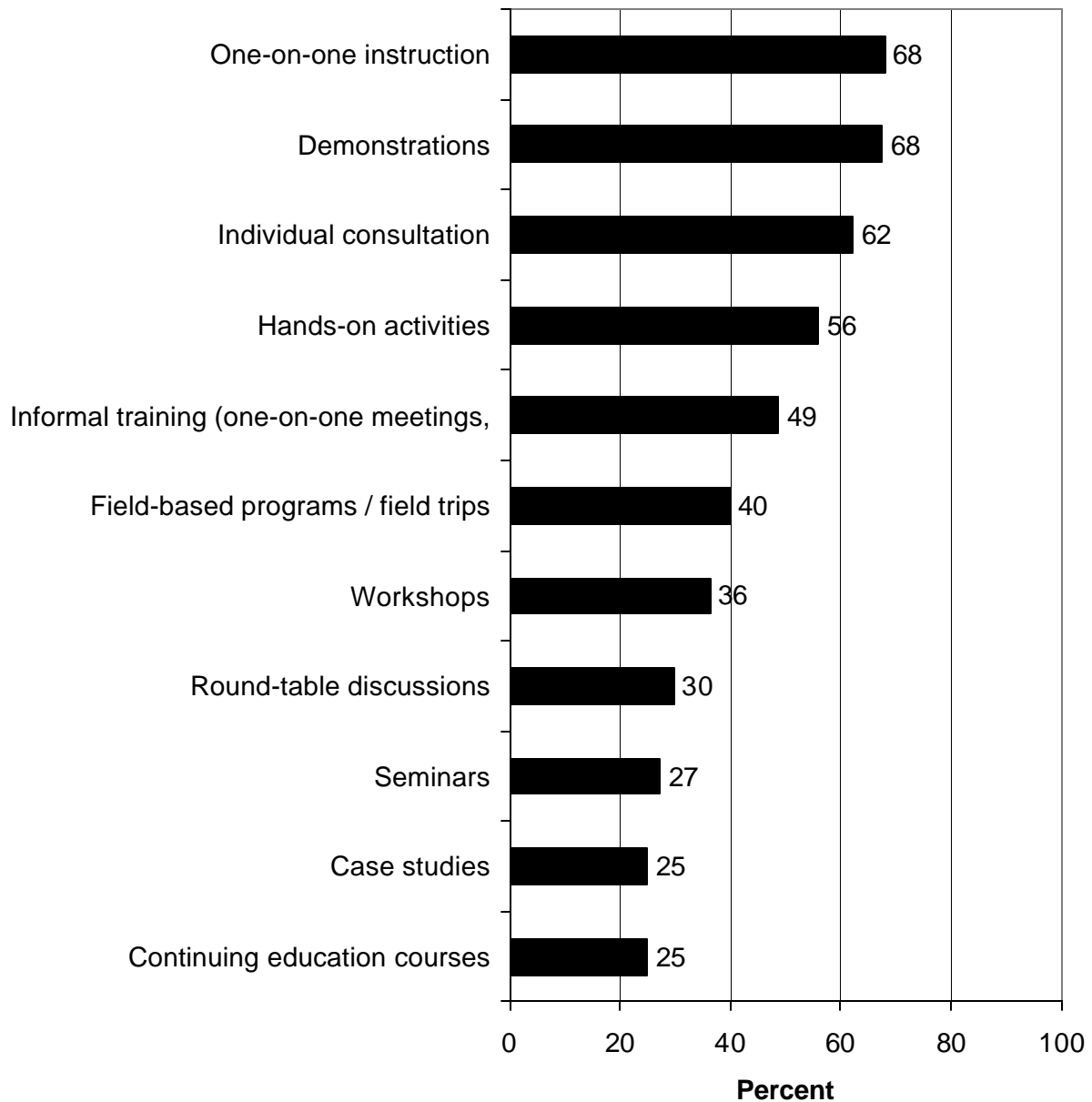
What do you feel are the primary inhibiting factors preventing change and advancement in your community? (Needs Assessment)



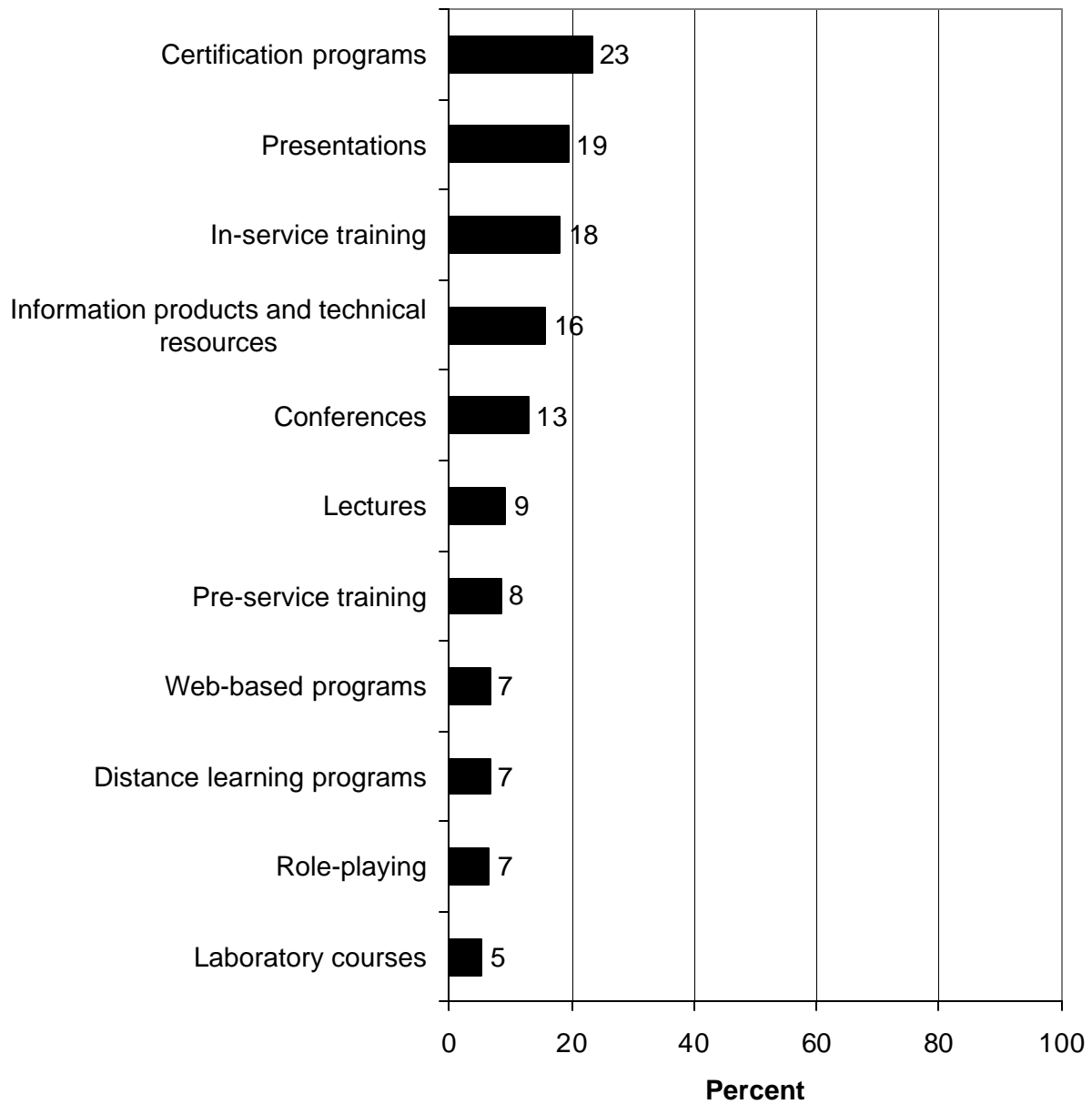
RATINGS AND EFFECTIVENESS OF VARIOUS DELIVERY METHODS FOR COASTAL TRAINING

- The survey asked decision-makers to rate the effectiveness of various coastal resource professional development delivery methods. One-on-one instruction (68%) and demonstrations (68%) topped the list of delivery methods rated as *very* effective by decision-makers.
 - A majority of decision-makers also rated individual consultation (62%) and hands-on activities (56%) as being *very* effective delivery methods.
 - At the bottom of the list were laboratory courses (5%), role-playing, distance learning programs, and Web-based programs (the latter three each with 7% of decision-makers rating them as being *very* effective delivery methods).

Percent who indicated that the following coastal resource professional development delivery methods were very effective in learning about coastal resource issues. (Part 1.) (Needs Assessment)



Percent who indicated that the following coastal resource professional development delivery methods were very effective in learning about coastal resource issues. (Part 2.) (Needs Assessment)

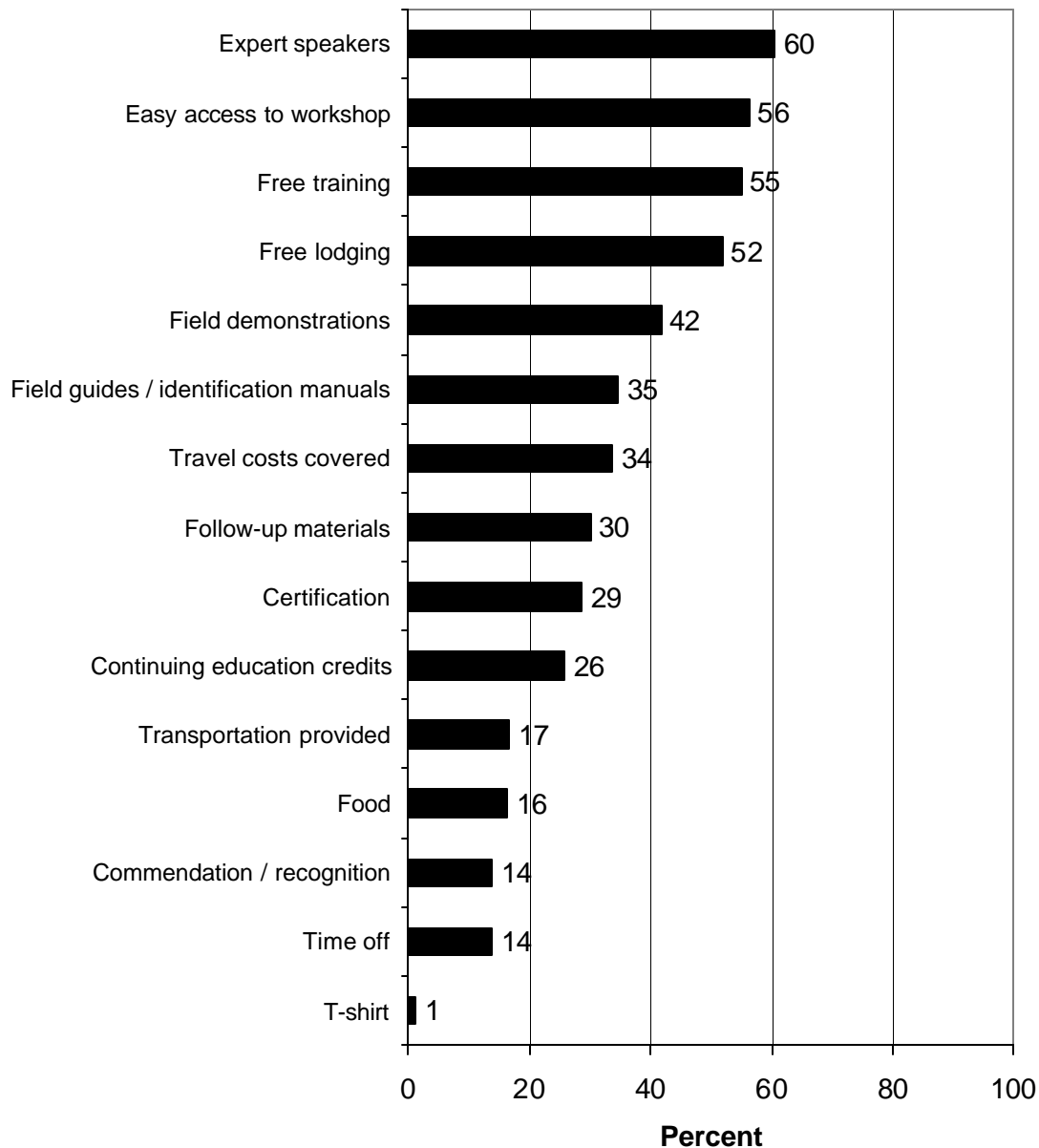


ENCOURAGING PARTICIPATION IN COASTAL RESOURCE PROFESSIONAL DEVELOPMENT PROGRAMS

Incentives for Participation in Coastal Resource Professional Development Programs

- The survey asked decision-makers to rate various incentives for encouraging attendance at training or education/outreach sessions on coastal resource management issues. Expert speakers (60%) topped the incentives rated by a majority of decision-makers as being “high” incentives, followed by easy access to workshops (56%), free training (55%), and free lodging (52%).

**Percent who indicated that the following have a high incentive rating for encouraging attendance to a training or education/outreach session on coastal resource management issues.
(Needs Assessment)**



Timing and Registration for Coastal Resource Professional Development Programs

- The survey asked respondents about the best season for attending coastal resource professional development. Winter was the most common answer (40%) given by decision-makers, followed by the non-preferential “any season” (35%).
 - Spring (6%), summer (9%), and fall (10%) had relatively low levels of preference.

- Respondents were asked about the best day of the week for attending coastal resource professional development. Overwhelmingly, decision-makers chose weekdays (76%) as their preferred day of the week for professional development.
 - Regarding other options, the non-preferential “any day” (19%) was followed by weekends (5%).

- Respondents were asked about the best time of day for attending coastal resource professional development. The majority of decision-makers (57%) indicated that morning would be the best time of day.
 - A quarter of decision-makers (25%) said afternoon, while 18% chose the non-preferential “any time of day.”

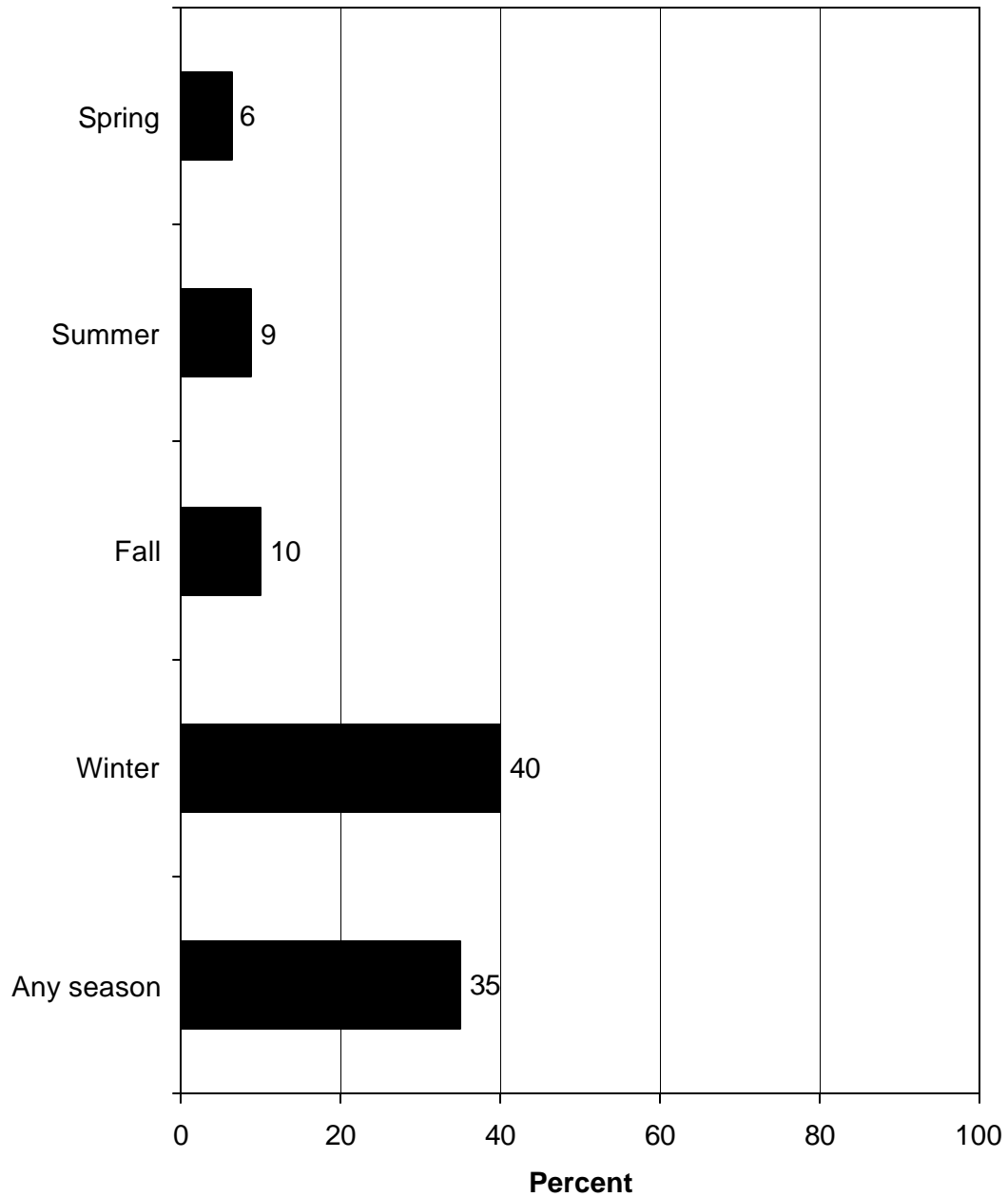
- The survey asked respondents about the best session length for coastal resource professional development. Decision-makers appear to prefer session lengths not exceeding a single day: 41% said that one-hour to a half-day would be the best length, while 40% said a half-day to a day-long.
 - 16% of decision-makers chose the non-preferential “any length of time,” while just 3% chose one-hour or less.

- When asked about preferences for being notified of coastal resource professional development programs, decision-makers overwhelmingly favored direct mail (88%) and e-mail (74%).

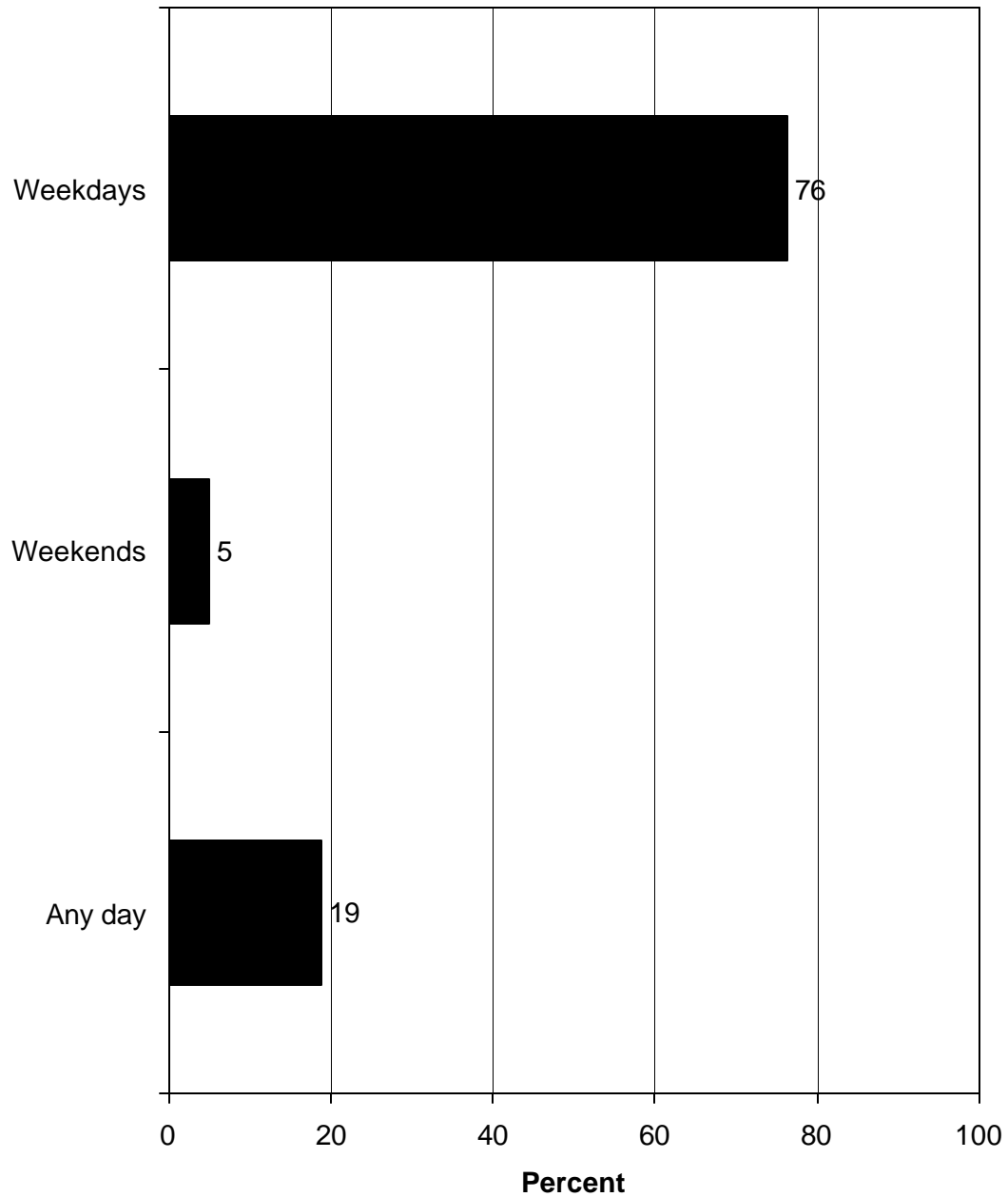
- When asked about preferences for registering for a coastal resource professional development session, decision-makers overwhelmingly favored on-line registration (81%).
 - Mail-in registration (38%) and telephone registration (20%) had smaller levels of preference.

- The survey asked decision-makers about factors affecting their ability to attend coastal resource professional development training. Having no time or being too busy was the top response (37%), followed by family constraints (34%) and that training is not held in convenient locations (29%).
 - Note that over a fifth of respondents (21%) said they have no constraints to attending coastal training, and that 18% said that training is not relevant to their needs.

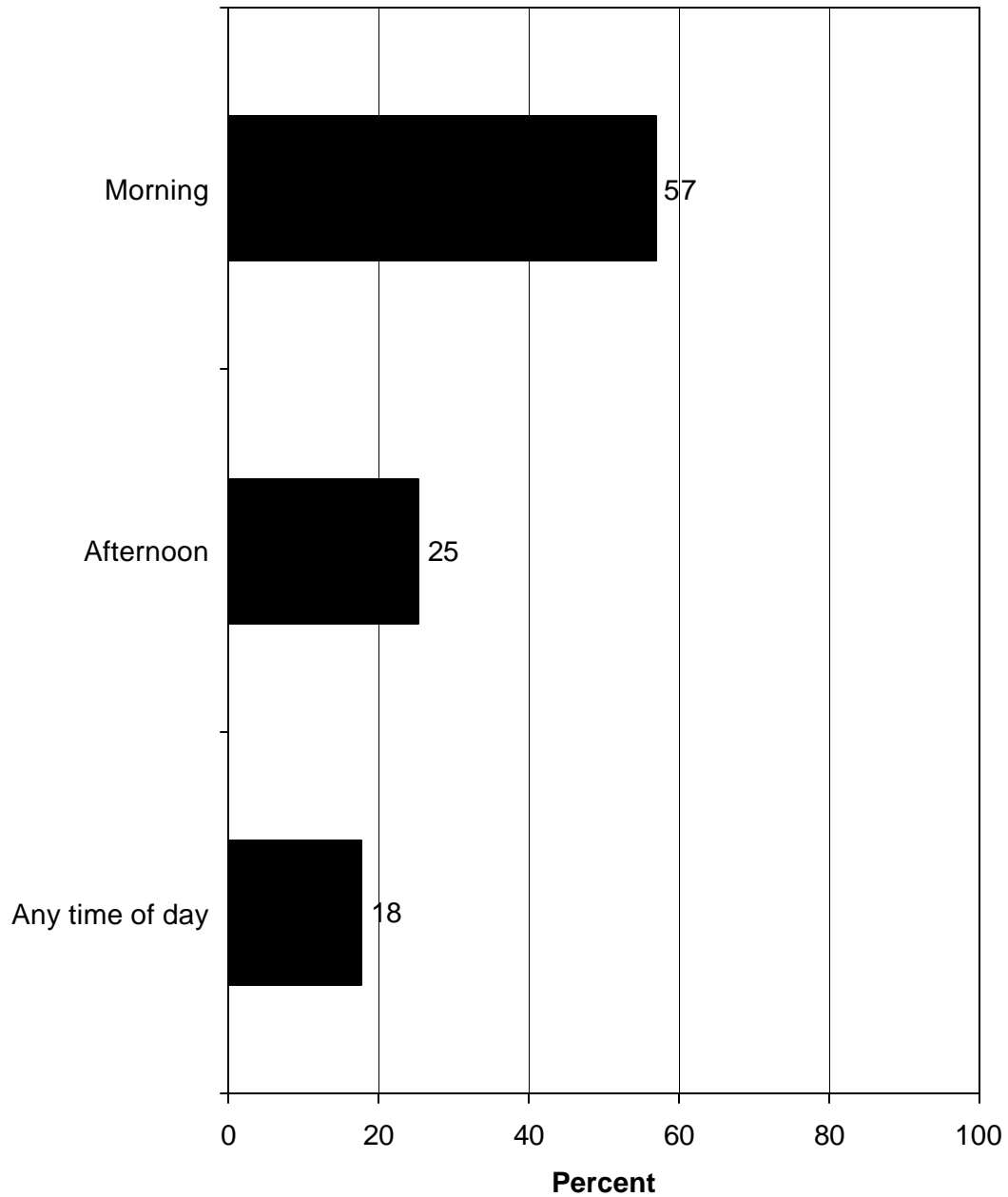
**Which season is the best time for you to attend coastal resource professional development?
(Needs Assessment)**



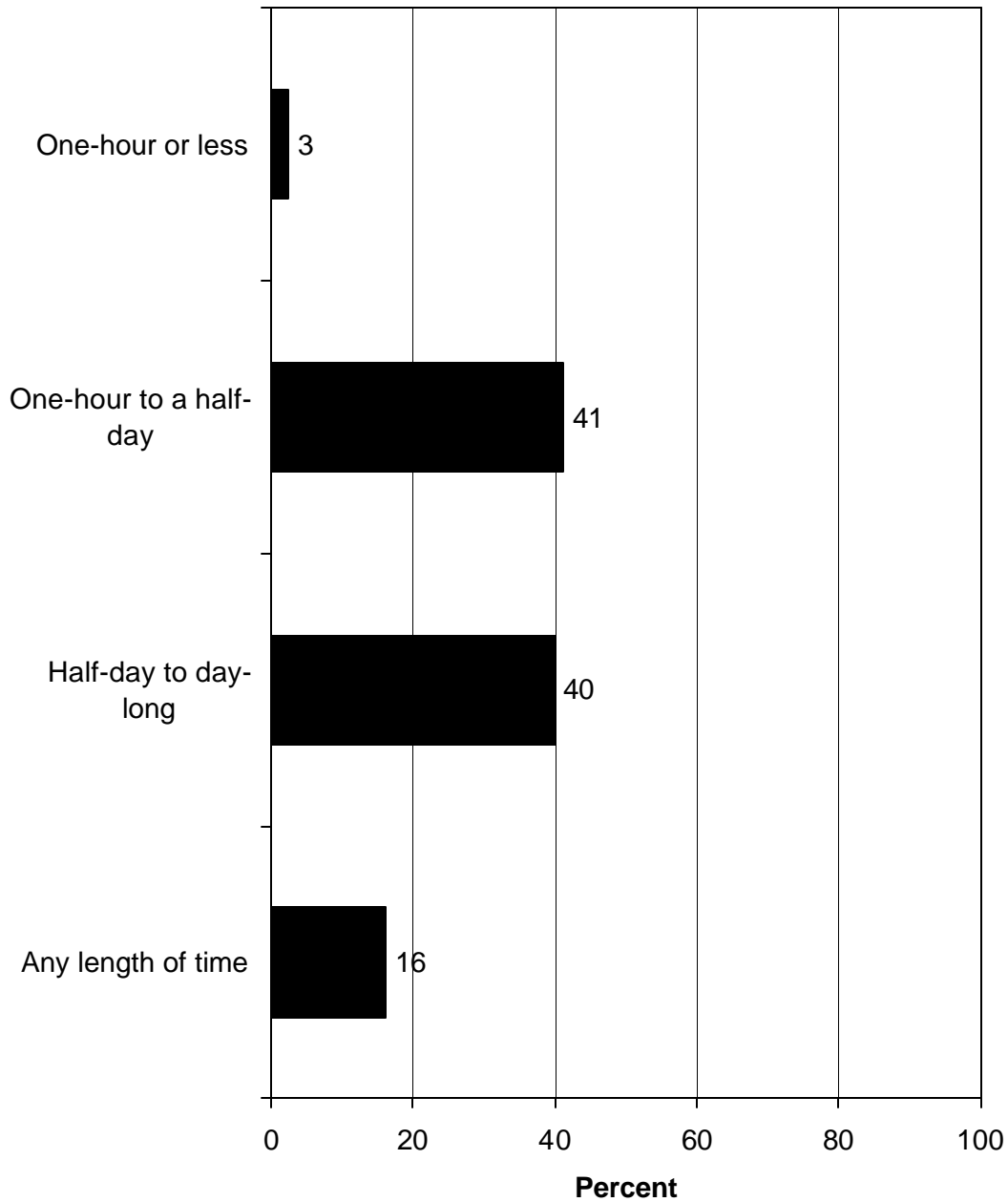
**Which day of the week is the best time for you to attend coastal resource professional development?
(Needs Assessment)**



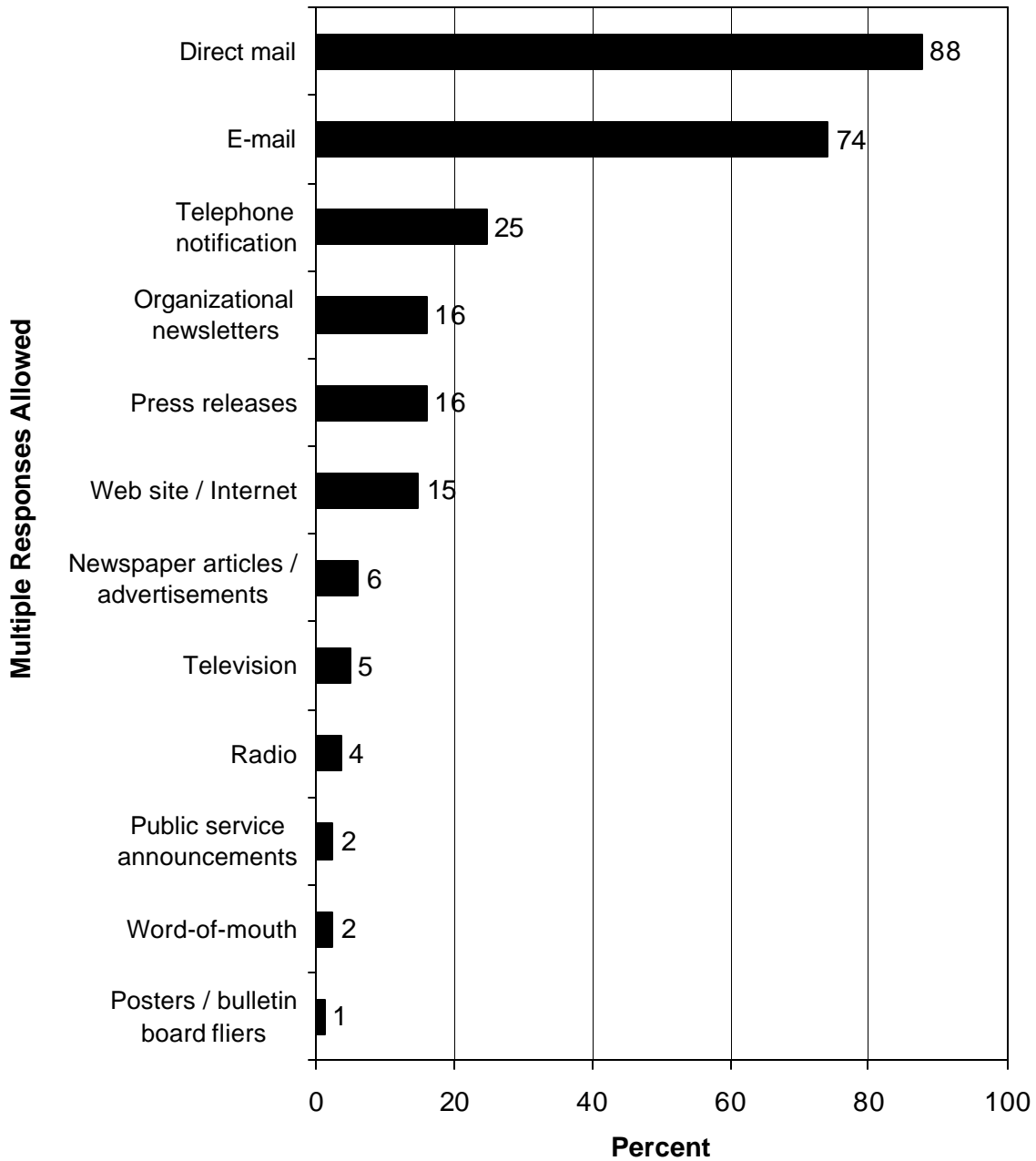
What time of day is best for you to attend coastal resource professional development? (Needs Assessment)



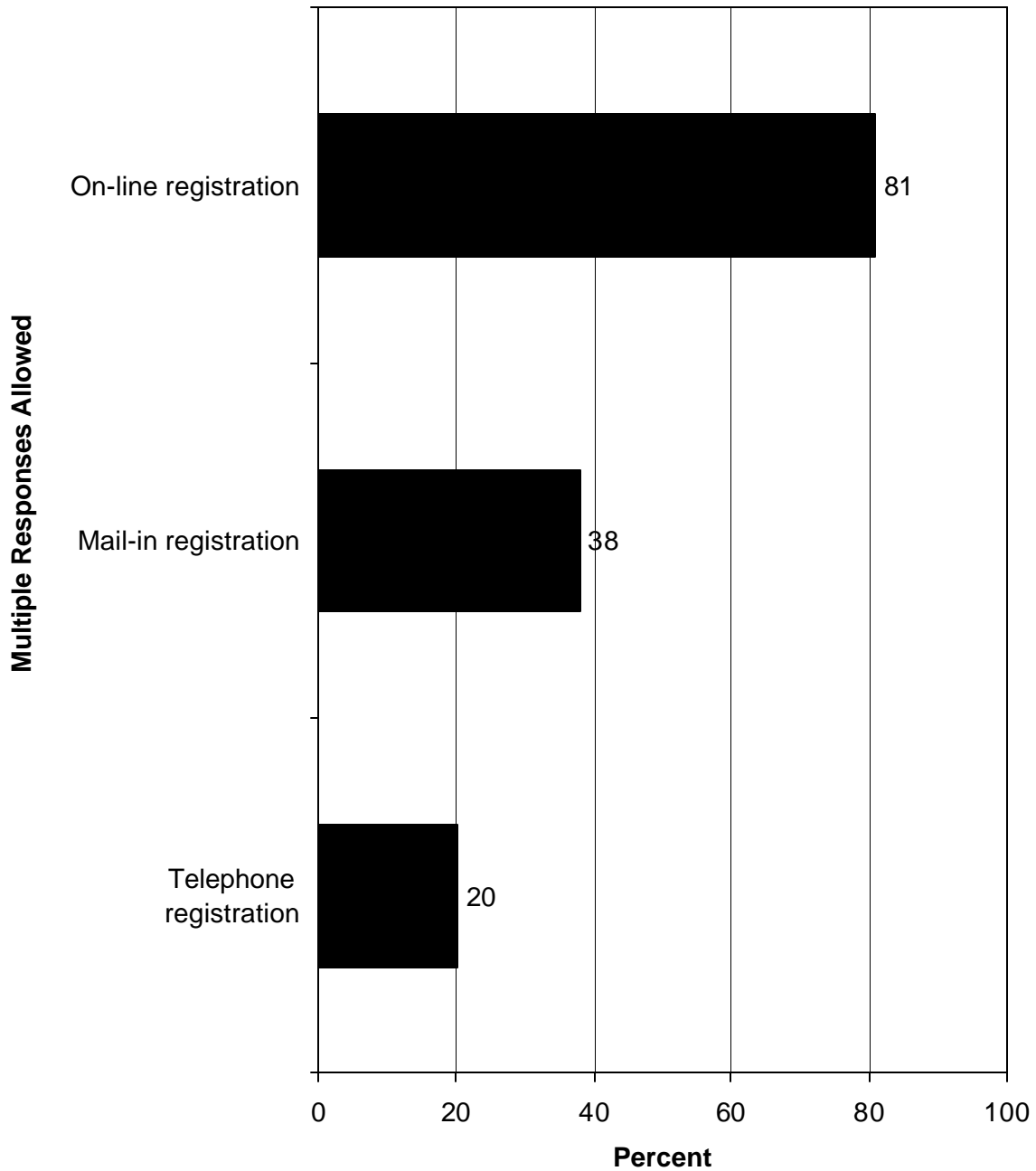
**Which session length is the best time for you to attend coastal resource professional development?
(Needs Assessment)**



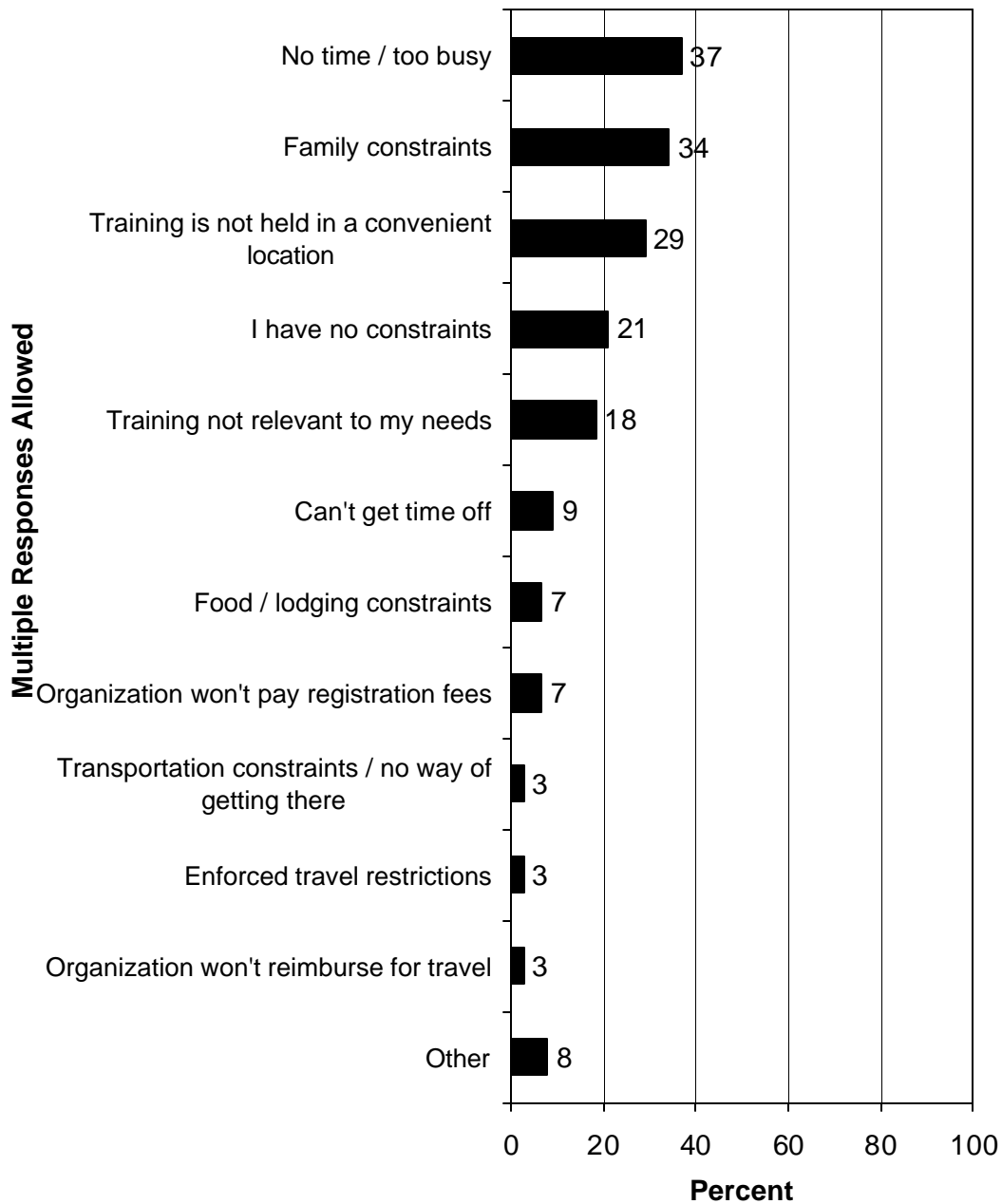
How would you prefer to be notified/made aware of coastal resource professional development programs? (Needs Assessment)



**How do you prefer to register for a coastal resource professional development session?
(Needs Assessment)**



What factors affect your ability to attend coastal resource professional development training? (Needs Assessment)



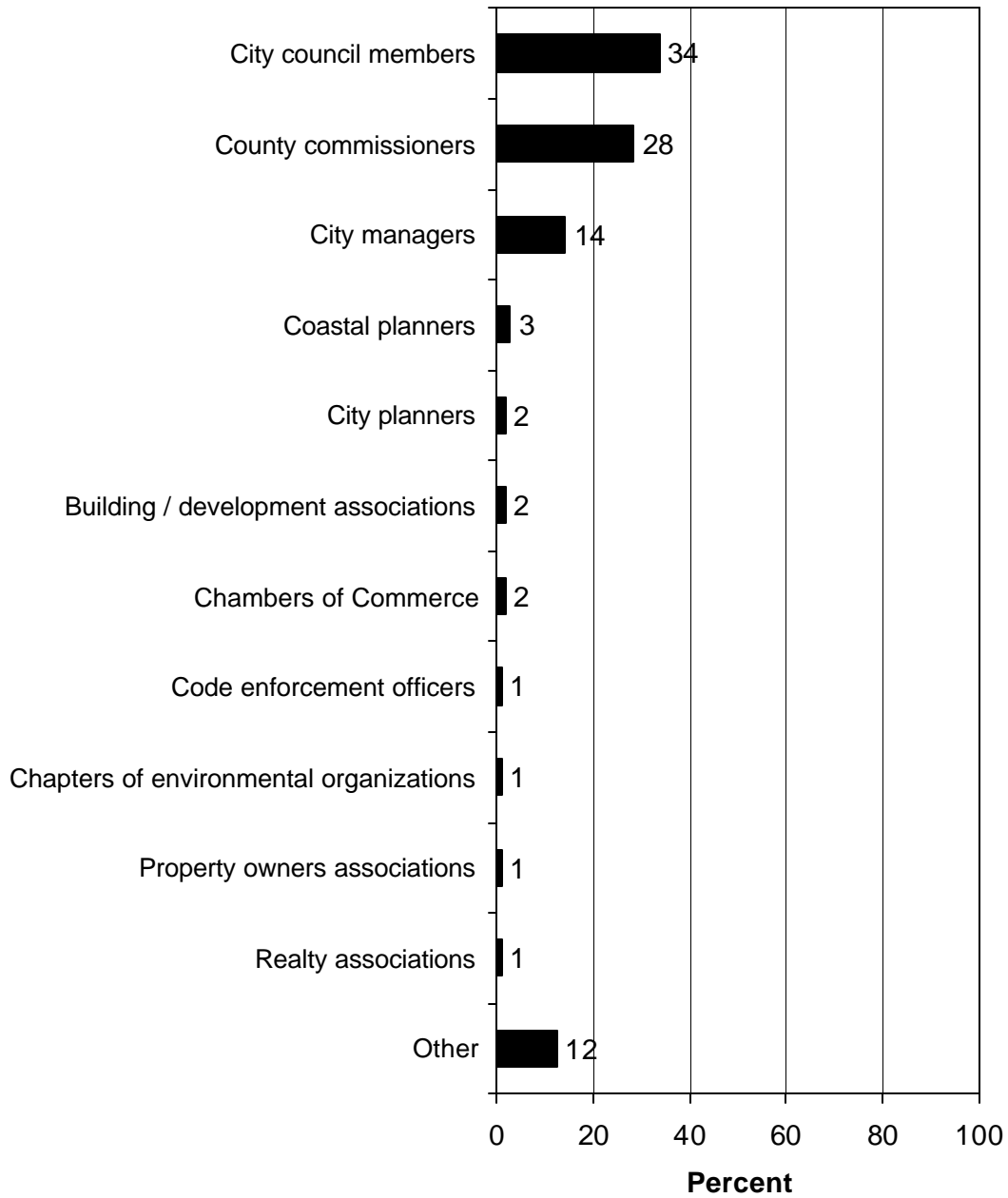
NEEDS ASSESSMENT DEMOGRAPHIC AND PROFESSIONAL INFORMATION

- City council members (34%), county commissioners (28%), and city managers (14%) were the most common decision-makers who participated in the survey.
 - Note that 12% of respondents answered “other” as their professional position: respondents of this group included city architects, local development authority executives, planning and zoning administrators, and historic preservation planners.

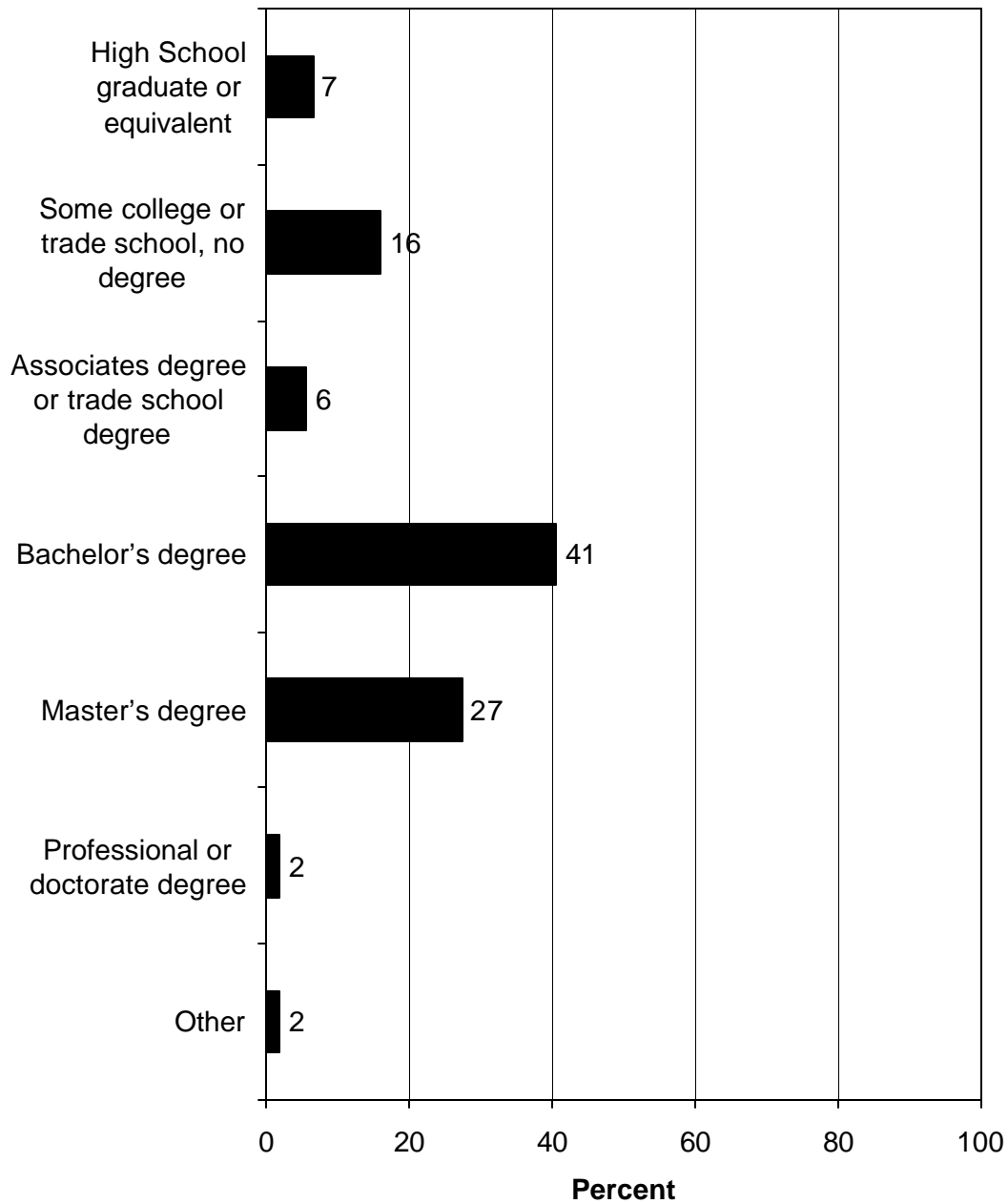
- The majority of decision-makers (70%) indicated having completed at least a bachelor’s degree, with a further 29% having completed a Master’s or professional or doctorate degree.

- Respondents from the 11 coastal counties were fairly evenly distributed, with Chatham (30%) and Camden (17%) being the top counties for decision-maker respondents.

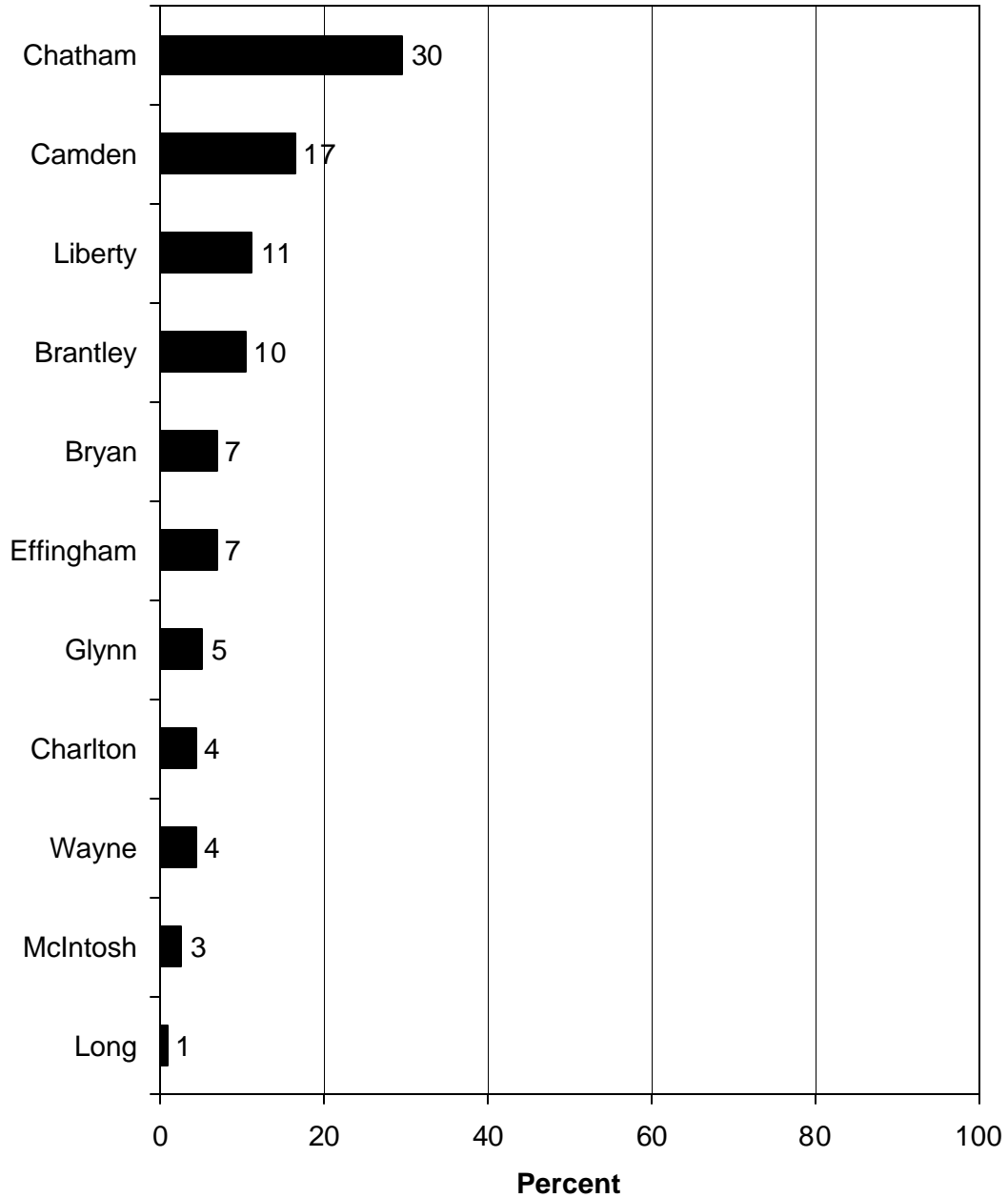
First, please select the category that best describes your position. (Needs Assessment)



**Please describe your educational background
and/or details of your professional training. (Needs
Assessment)**



In what county do you work? (Needs Assessment)



MARKET INVENTORY RESULTS

- The following section discusses the results of the market inventory administered to coastal resource training and information providers. This survey was used to inventory the available programs used for coastal resource training and information. All respondents to the market inventory were employees and volunteers of agencies and organizations that produce training and information programs. (Note that in the section that follows, “organizations” refers to all providers of coastal resource training and information, including organizations, agencies, and institutions.)

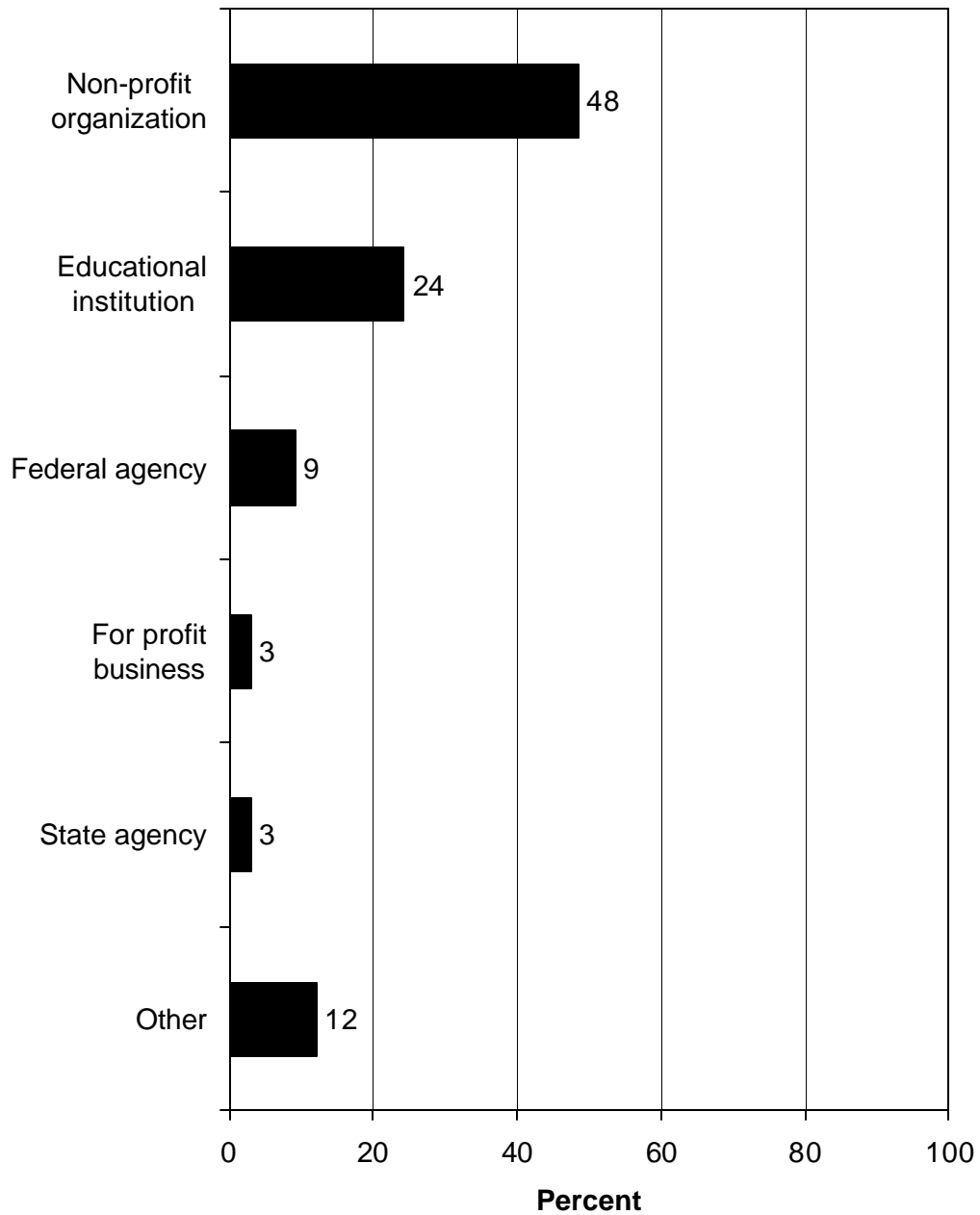
ORGANIZATION NAME, TYPE, AND OPERATIONAL DETAILS

- Names of the agencies and organizations that responded to the market inventory are listed in the following table.

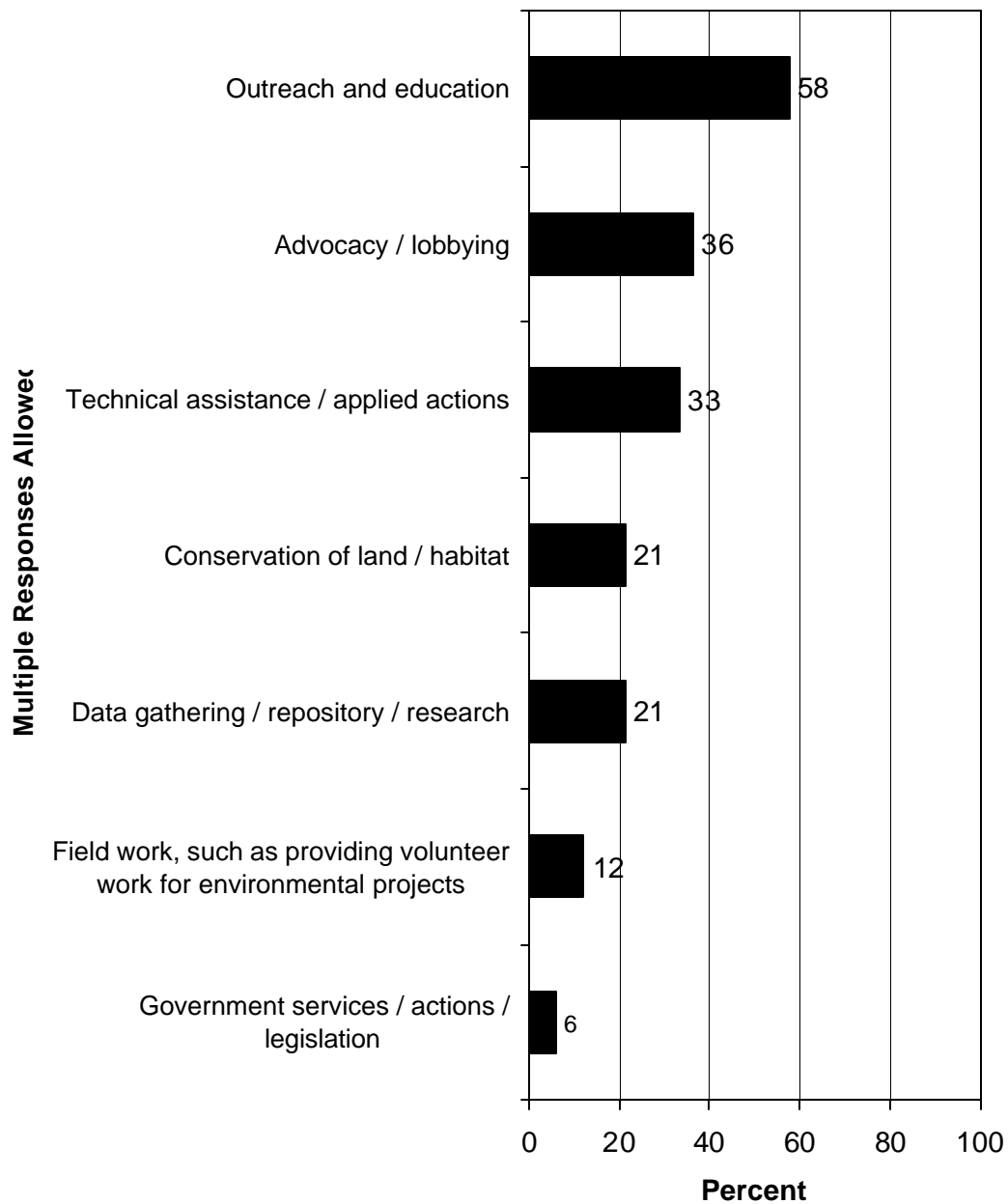
Altamaha Riverkeeper
Center for a Sustainable Coast
Center for Watershed Protection
Chatham County-Savannah Metropolitan Planning Commission
Clean Coast
Sierra Club, Georgia Chapter, Coastal Group
Coastal States Organization
East Carolina University Coastal Maritime Council
Farris Cadle, Inc.
Georgia Department of Natural Resources, Coastal Resources Division
Georgia Association of Water Professionals
Georgia Coastal Research Council
Georgia Environmental Policy Institute
Georgia Land Trust
Georgia River Network
Georgia Southern University
National Oceanic and Atmospheric Administration, National Ocean Service, National Center for Coastal Ocean Science, Center for Coastal Environmental Health and Biomolecular Research (NOAA/NOS/NCCOS/CCEHBR)
Okefenokee National Wildlife Refuge
Satilla Riverwatch Alliance, Inc. d/b/a Satilla Riverwatch
Savannah State University
Skidaway Institute of Oceanography
SouthEast U.S. Atlantic Coastal Ocean Observing System
Southeast Watershed Forum
Surfrider Foundation
The Conservation Fund
The Trust for Public Land
U.S. Fish and Wildlife Service
University of Georgia Cooperative Extension, Brantley County
University of Georgia Cooperative Extension, Bryan County
University of Georgia Cooperative Extension (unspecified county)
University of Georgia Cooperative Extension (unspecified county)
University of Georgia Marine Extension Service
Upper Etowah River Alliance

- Non-profit organizations (48%), educational institutions (24%), and federal agencies (9%) were the top organization types to which the market inventory was administered.
- The survey asked about the mission statements of organizations responding to the market inventory. Most commonly, organizations involved in coastal resource issues have missions focusing on outreach and education (58%), followed by advocacy/lobbying (36%) and technical assistance/applied actions (33%).
 - Just over a fifth of organizations (21%) have missions focusing on conservation of land/habitat and data gathering/repository/research.
- Regarding organizations' specific areas of expertise in coastal resource training and information, over half of the organizations (55%) have expertise in biology, botany, ecology, and the natural sciences, while over a third have expertise in resource management/policies (39%) and data acquisition/research (36%).
 - Over a quarter of organizations (27%) have expertise in water quality.
- Most commonly, coastal resource organizations have staff sizes of 16 or more people (23%).

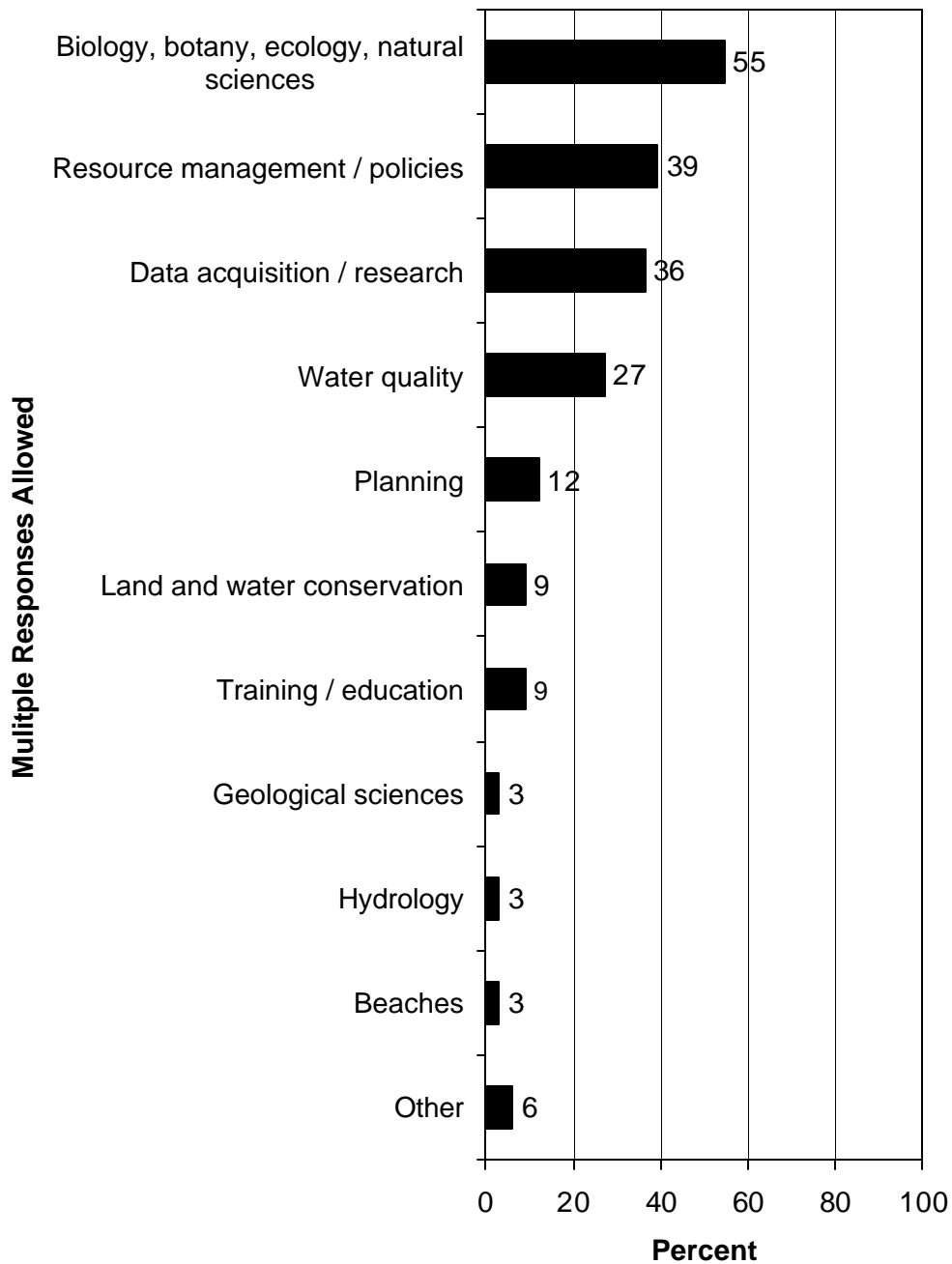
Which of the following best describes your organization? (Market Inventory)



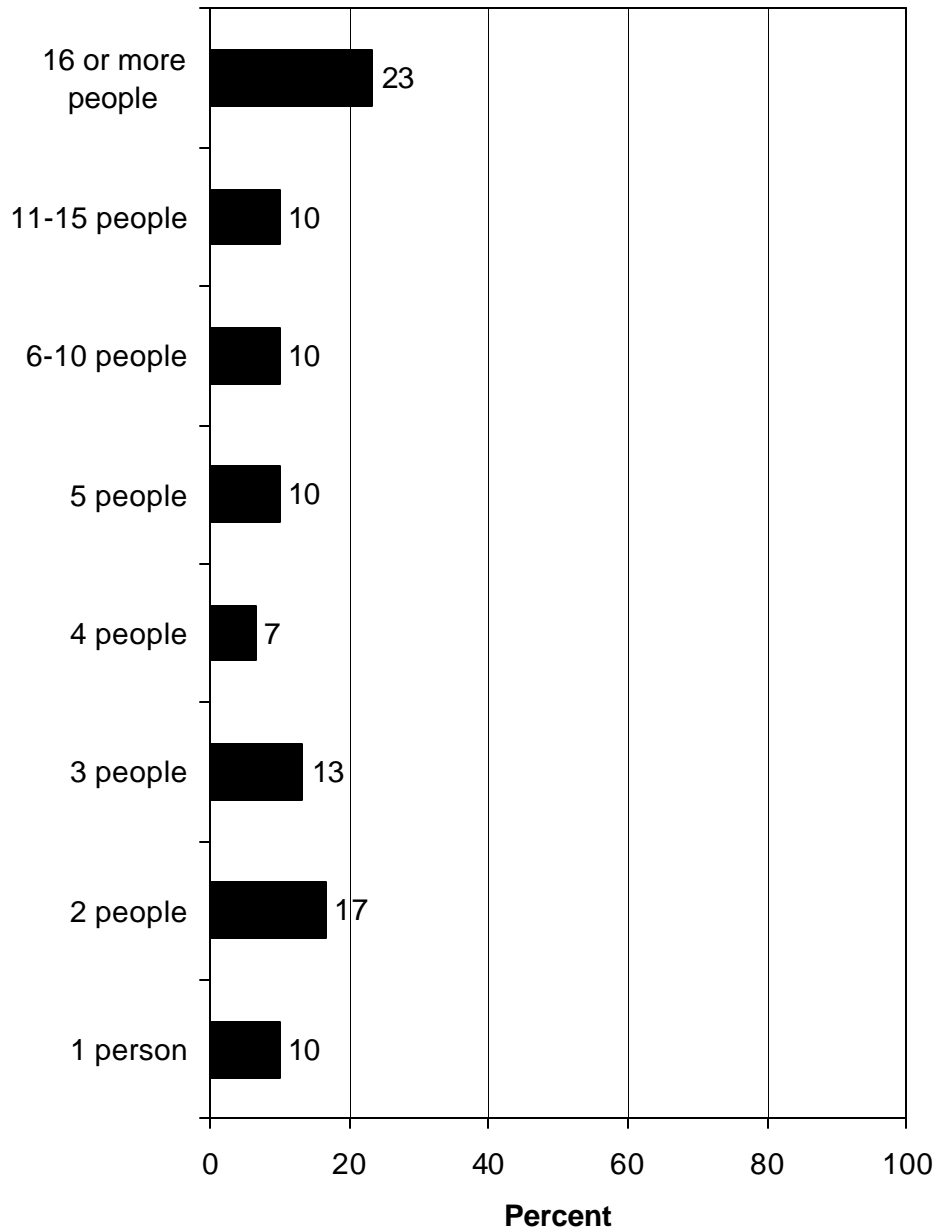
Missions of organizations responding to the market inventory. (Market Inventory)



**Agencies/organizations' specific areas of expertise regarding coastal resource training or information.
(Market Inventory)**



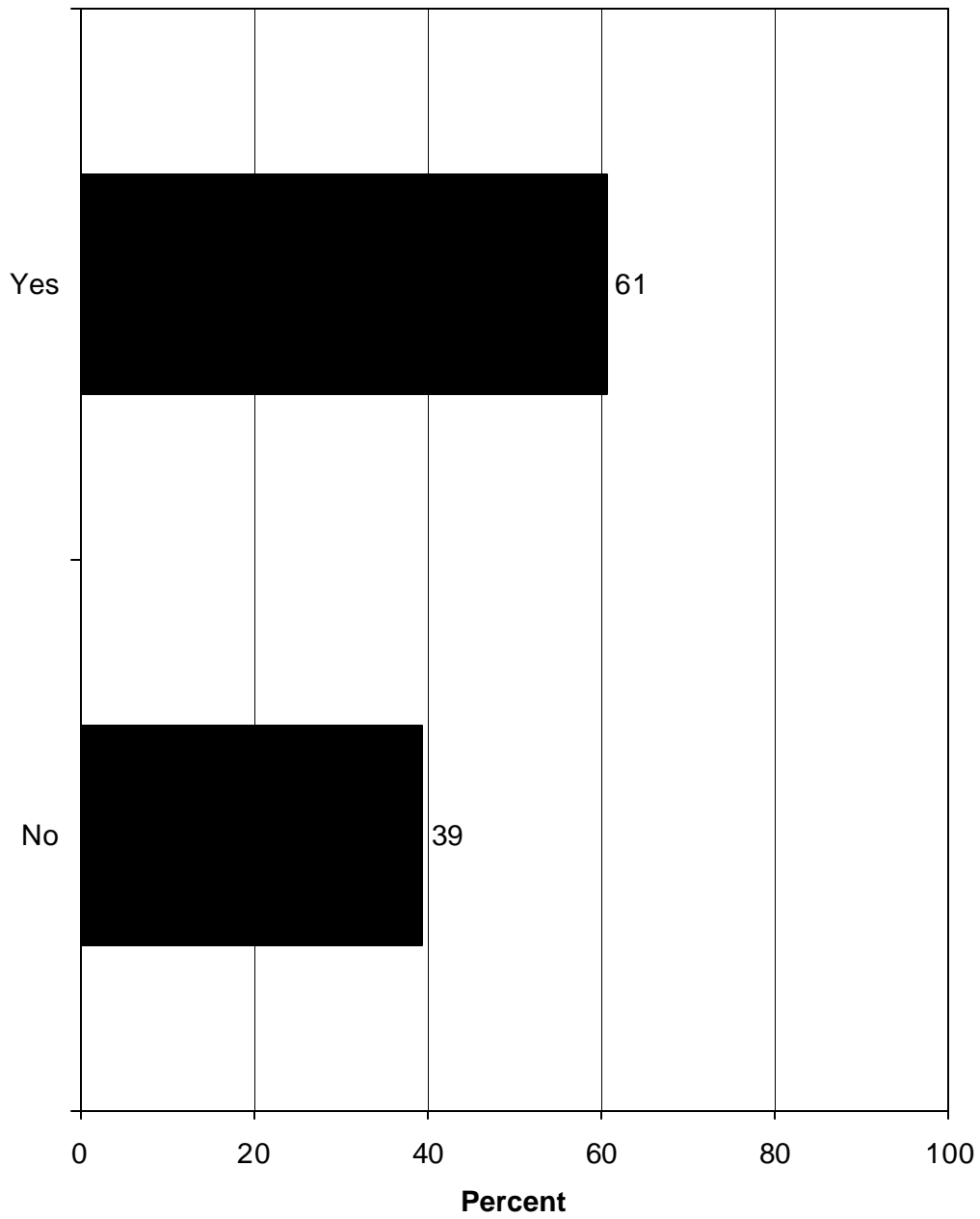
What is your total staff size? (Market Inventory)



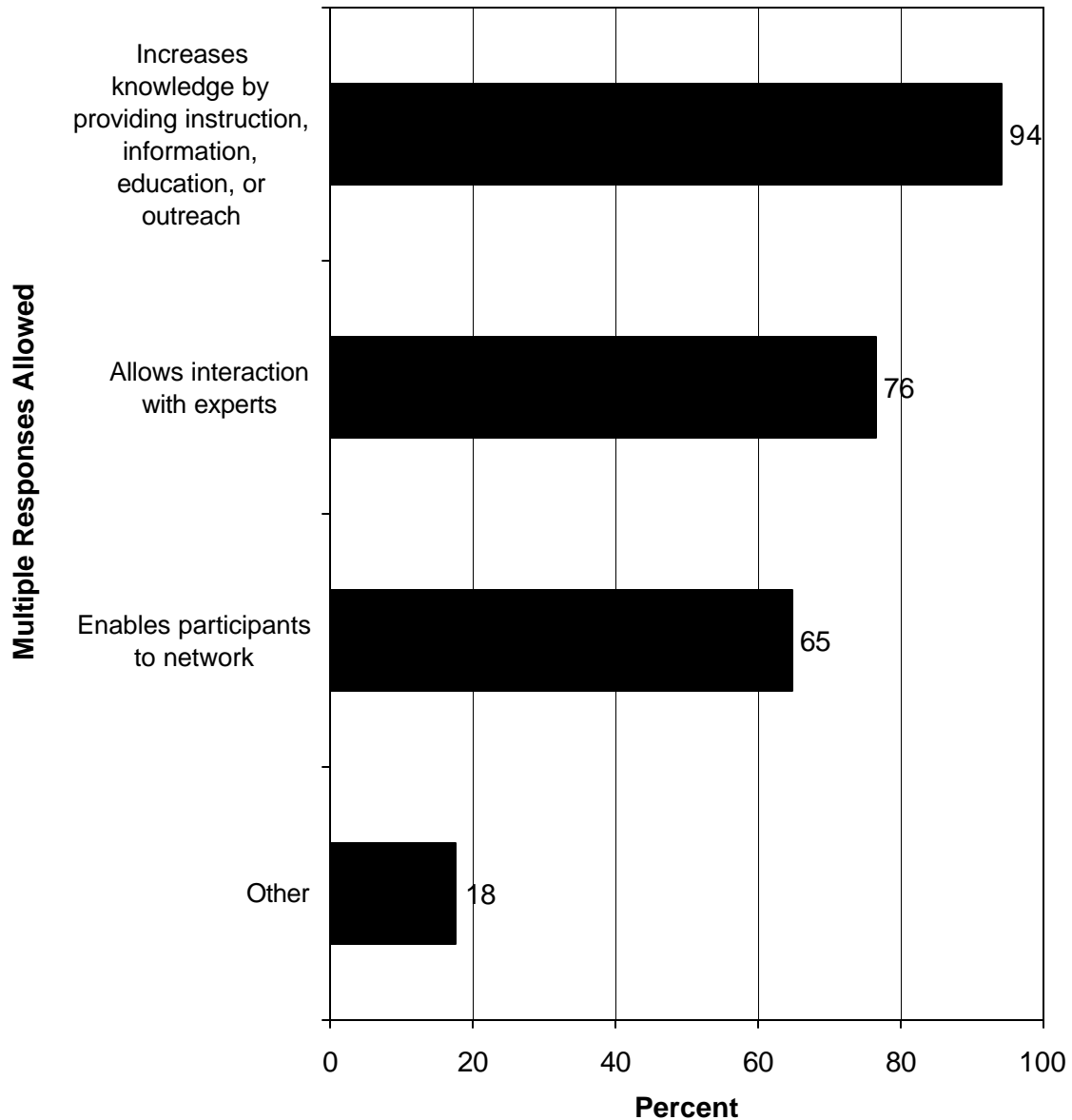
PARTICIPATION IN COASTAL RESOURCE TRAINING

- The survey's definition of coastal resource training stated that the training must accomplish at least two of the following objectives relating to scientific, ecological, and coastal natural resource issues: increase knowledge or skills by providing instruction, information, education, or outreach; enable interaction with an expert; or enable participants to access a network of professionals. Based on this definition, respondents to the market inventory were asked if their respective organizations participate in coastal resource training: 61% responded that they do.
- The overwhelming majority of organizations that provide coastal resource training (94%) indicate that their training increases knowledge by providing instruction, information, education, or outreach. Over three-quarters of organizations providing coastal resource training (76%) say that their training allows interaction with experts, while 65% of coastal resource training organizations say that their training meets the criteria of enabling participants to access a network of professionals.

Do you participate in coastal resource training? (Market Inventory)



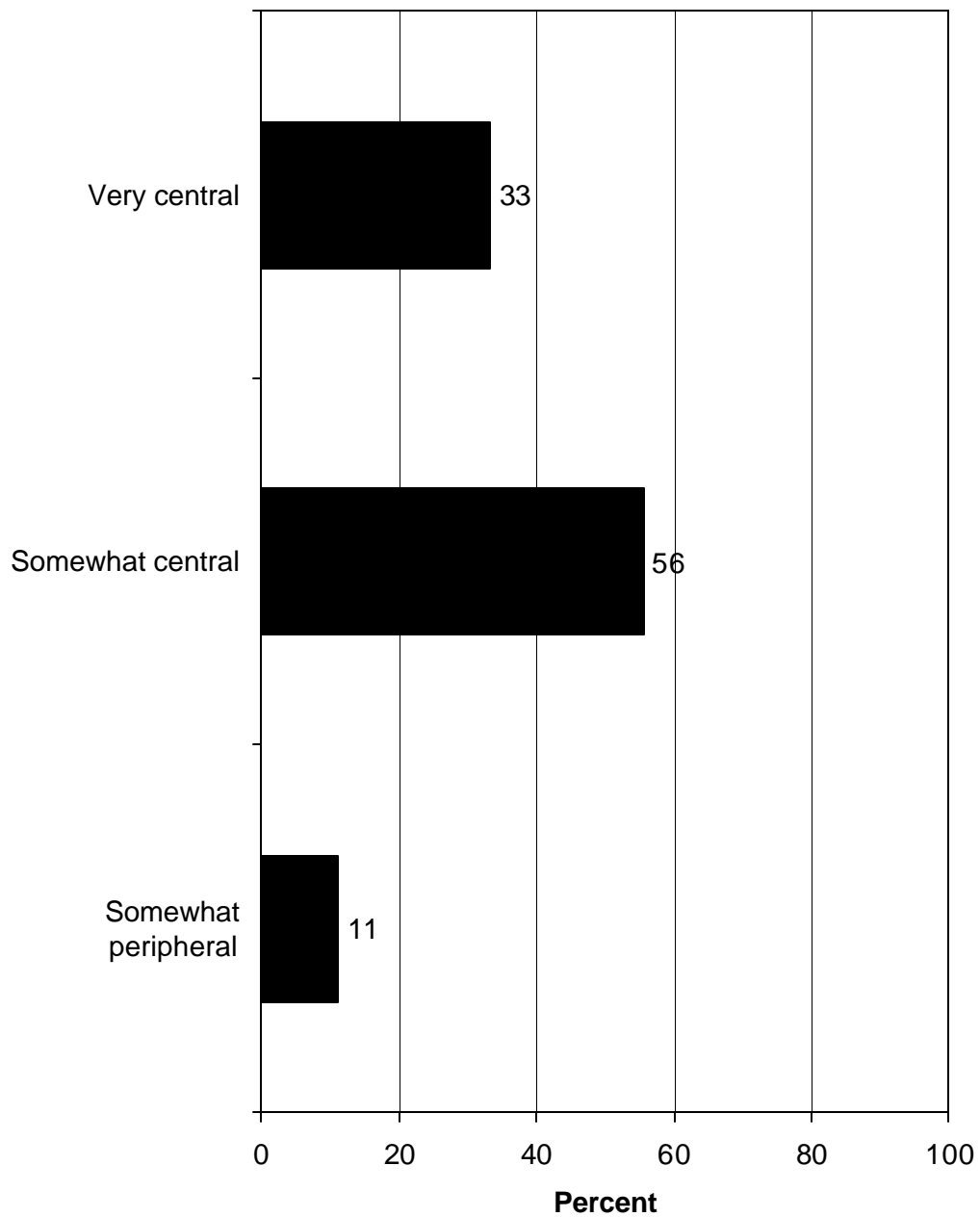
Which of these criteria would you say the coastal training you provide fulfills? (Market Inventory)



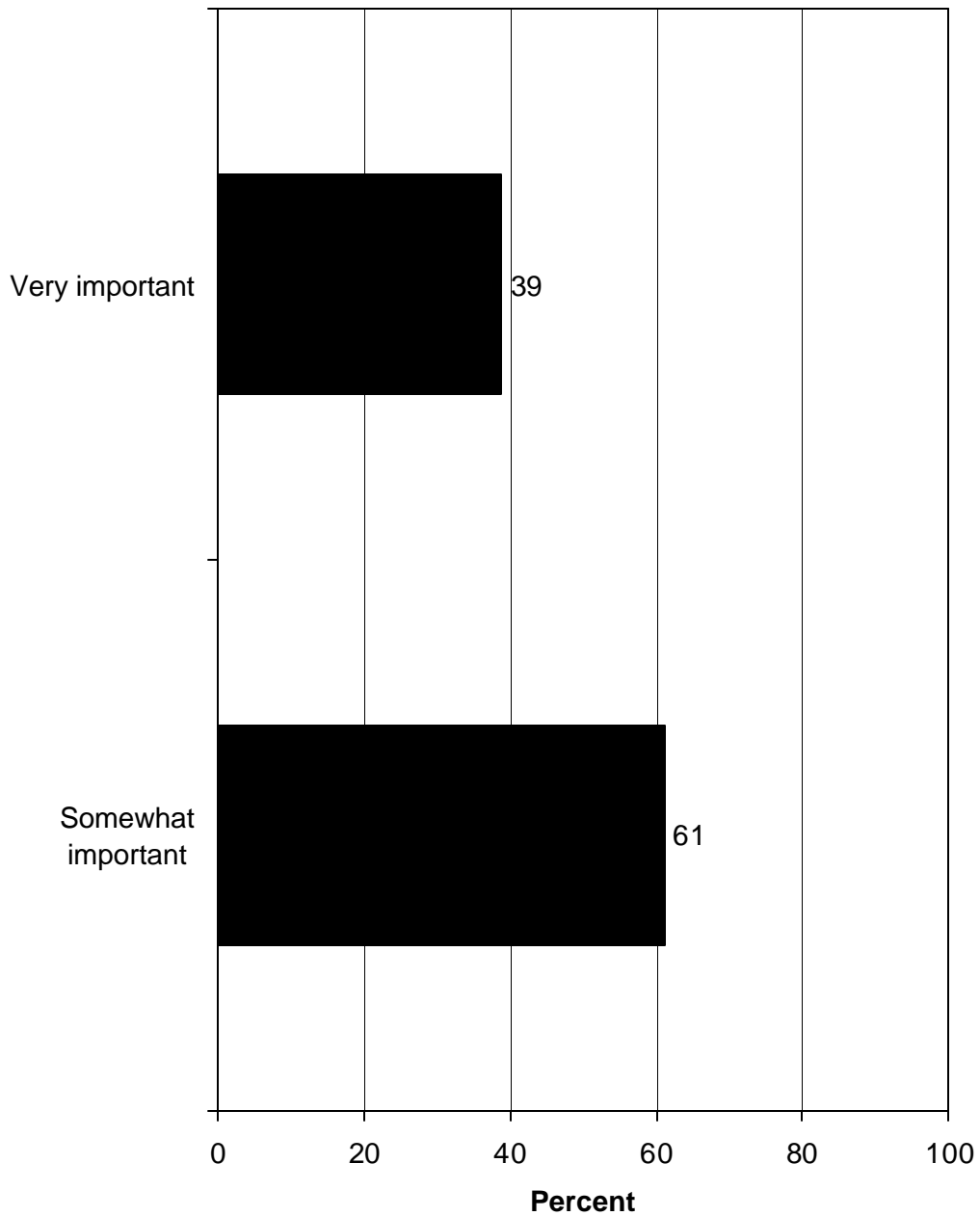
Coastal Resource Training Focus Within Organizations

- The survey asked respondents to indicate, relative to the overall mission of their organization, how central the provision of coastal resource training is to their organization. A third of coastal resource training organizations (33%) consider the provision of training to be *very* central to their organization, while 56% consider it to be somewhat central.
- The survey asked respondents to rate the importance of coastal resource training compared to other programs within their organizations. While the majority of respondents said that coastal resource training is somewhat important (61%) within their organization, 39% said it was *very* important.
- Most commonly, organizations that provide coastal resource training dedicate no more than one full-time employee specifically to coastal resource training or information.
 - A third of organizations that provide coastal resource training (33%) have four or more employees involved in, but not specifically dedicated to, coastal resource training or information.
- The survey asked respondents to describe the specific outcomes their organizations try to achieve with coastal training or information sessions. Over a third of organizations that provide coastal training do so with the intention of educating the public about coastal resources (36%), followed by influencing public opinion/advocating/lobbying (18%) and providing technical assistance (18%).

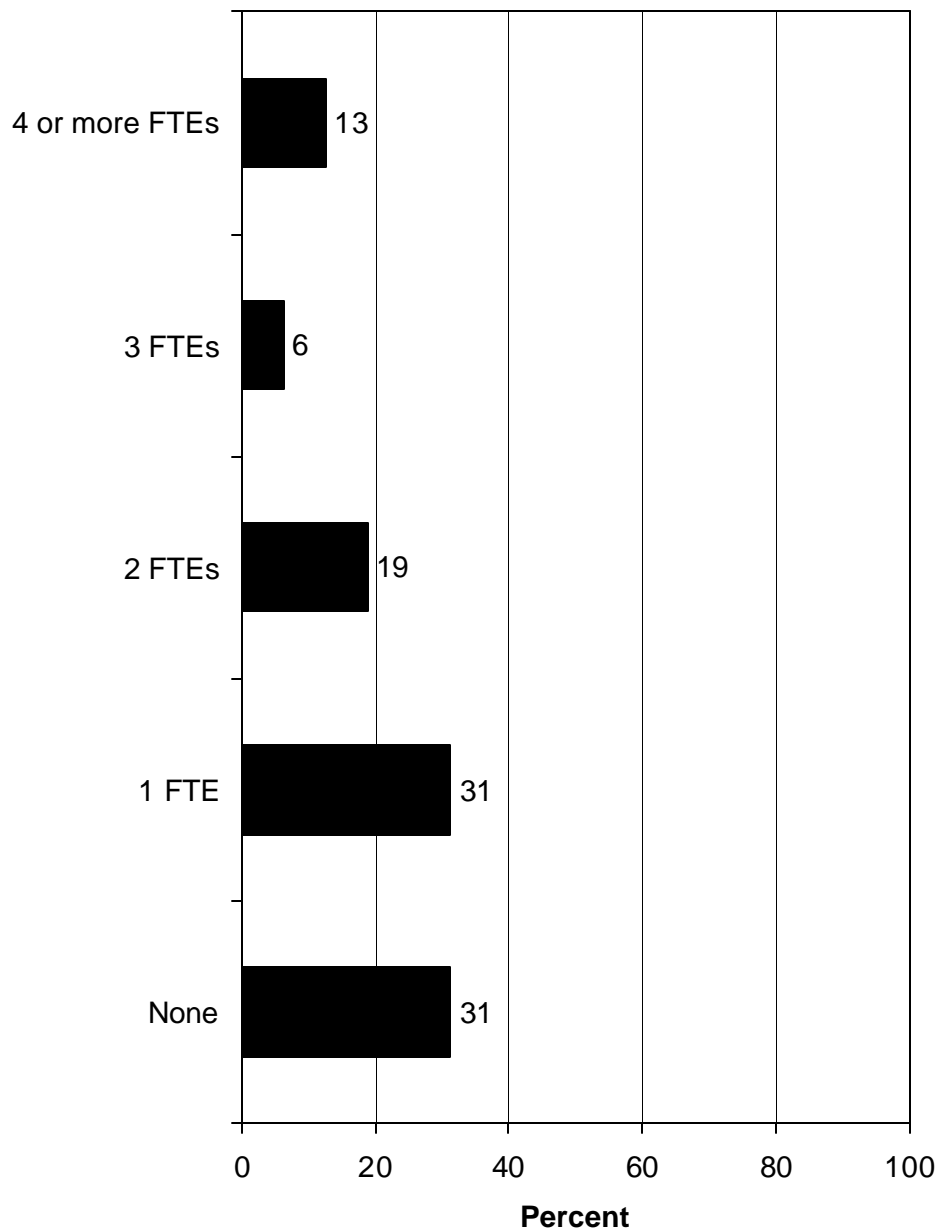
**Relative to your agency/organization's mission,
how central is providing coastal resource training
or information? (Market Inventory)**



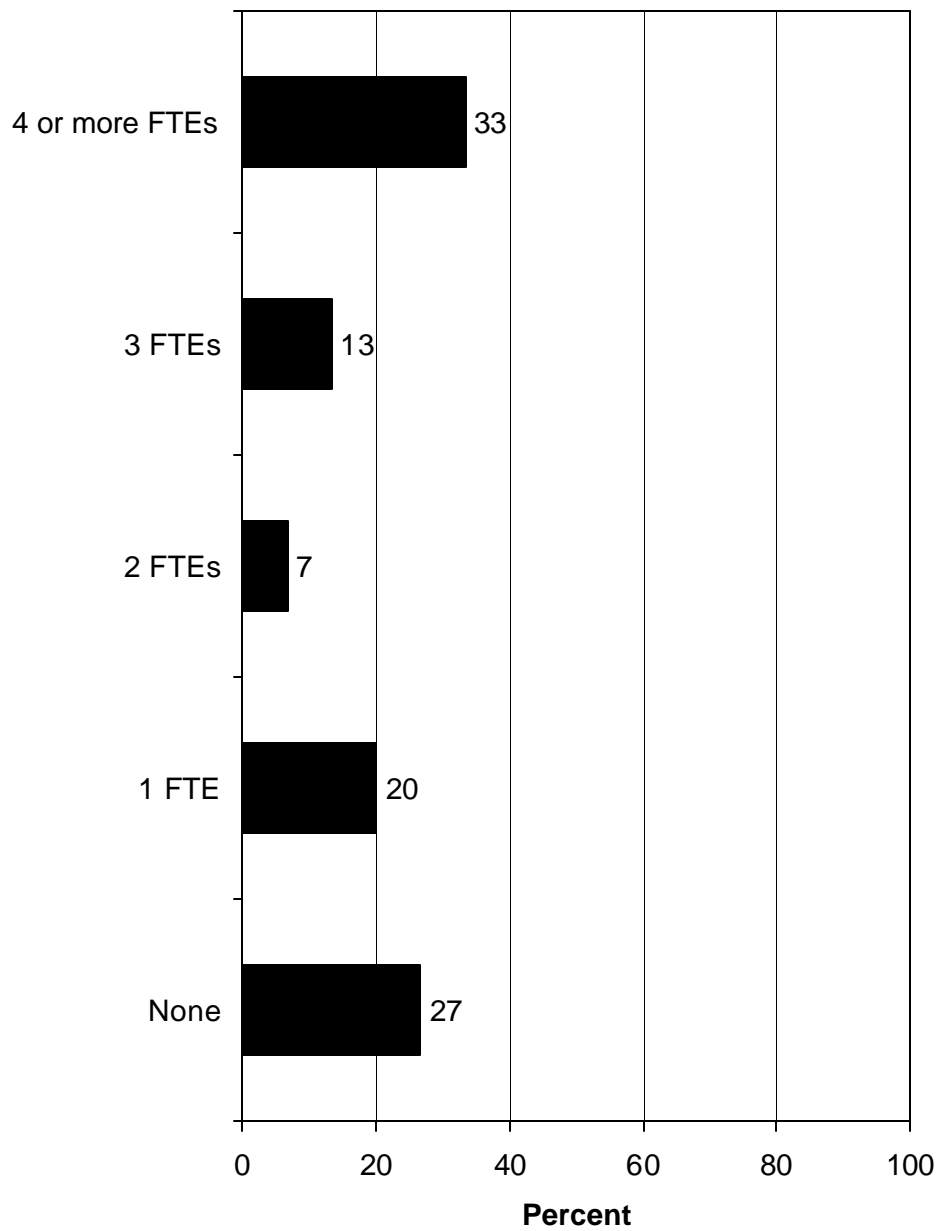
Compared to other programs in your agency/organization, how important would you say coastal training is? (Market Inventory)



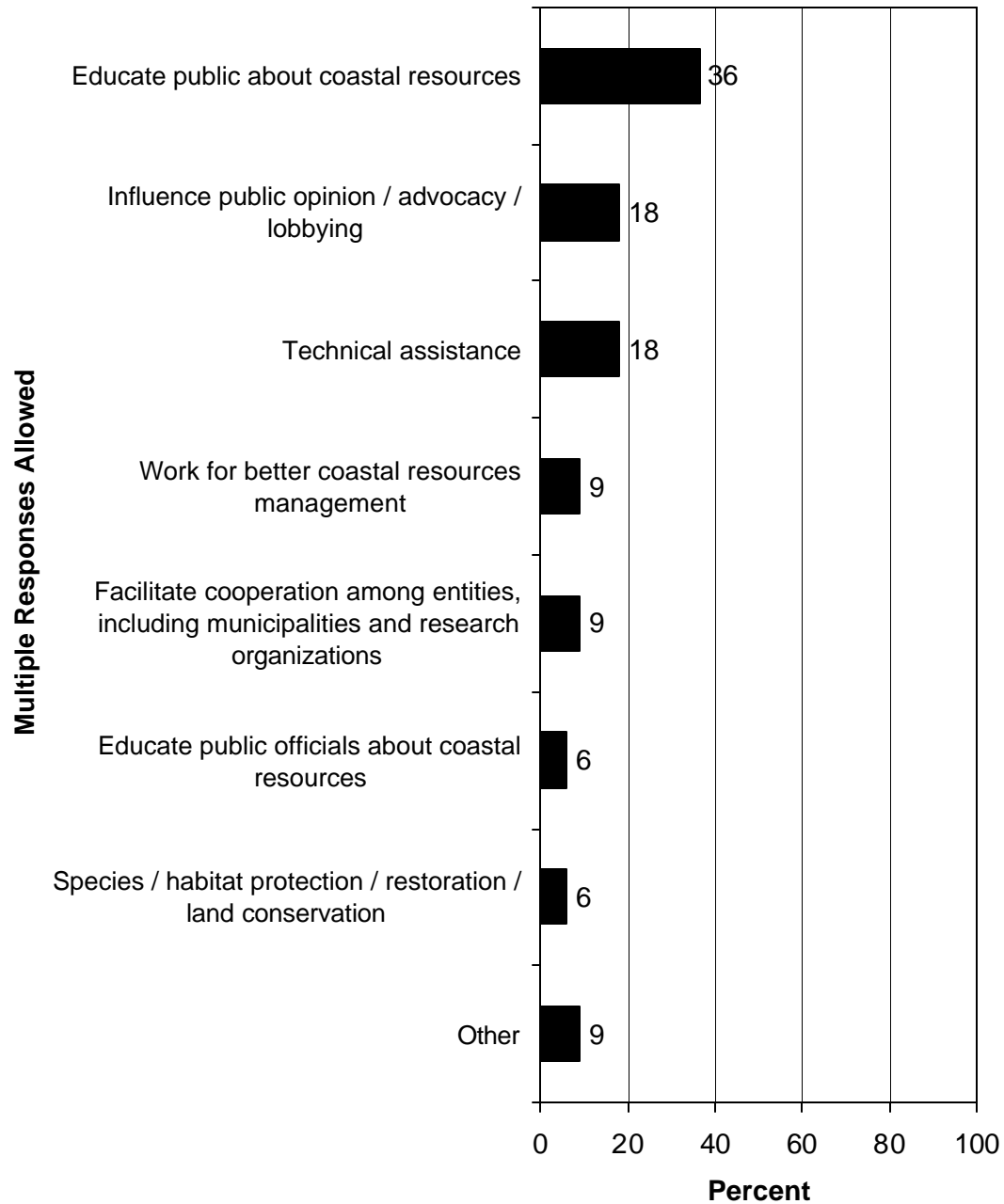
How many FTEs (full-time staff positions) do you dedicate specifically to coastal resource training or information? (Market Inventory)



How many other FTEs (full-time staff positions) are involved in, but not specifically dedicated to, coastal resource training or information? (Market Inventory)



Specific outcomes that agency/organization is trying to achieve with training or information sessions. (Market Inventory)



Coastal Resource Training and Programmatic Elements

- The survey asked how many different coastal resource training programs organizations conduct (in general, with no time period specified). A quarter of organizations providing coastal resource training (25%) produce six or more programs, while another quarter (25%) produce just one program.
 - Over a third of organizations (34%) produce two or three training programs.

- Respondents from organizations providing coastal resource training were asked how many coastal resource training or information sessions their department or organization conducted in the past year. The majority of these organizations conducted three or more programs (79%).
 - Over a fifth of organizations (21%) conducted 11 or more training programs or information sessions in the past year.

- Regarding documents related to coastal resource training and information produced by organizations in the past year, the majority of organizations providing coastal resource training produced at least two documents (67%), with 40% having produced four or more documents.
 - A fifth of organizations (20%) did not produce any documents related to coastal resource training and information in the past year.

- Most commonly, organizations did not produce other training materials in addition to programs, information sessions, and documents (multimedia, etc.); however, nearly a third of organizations providing coastal resource training (31%) produced 1 to 2 additional training materials in the past year while another (23%) produced more than six additional training materials in the past year. Only 8% of organizations produced 3 to 5 materials.

- The survey asked about the approximate number of people for whom departments or organizations had provided coastal resource training or information in the past year. Most commonly, organizations provided coastal resource training or information to between 100

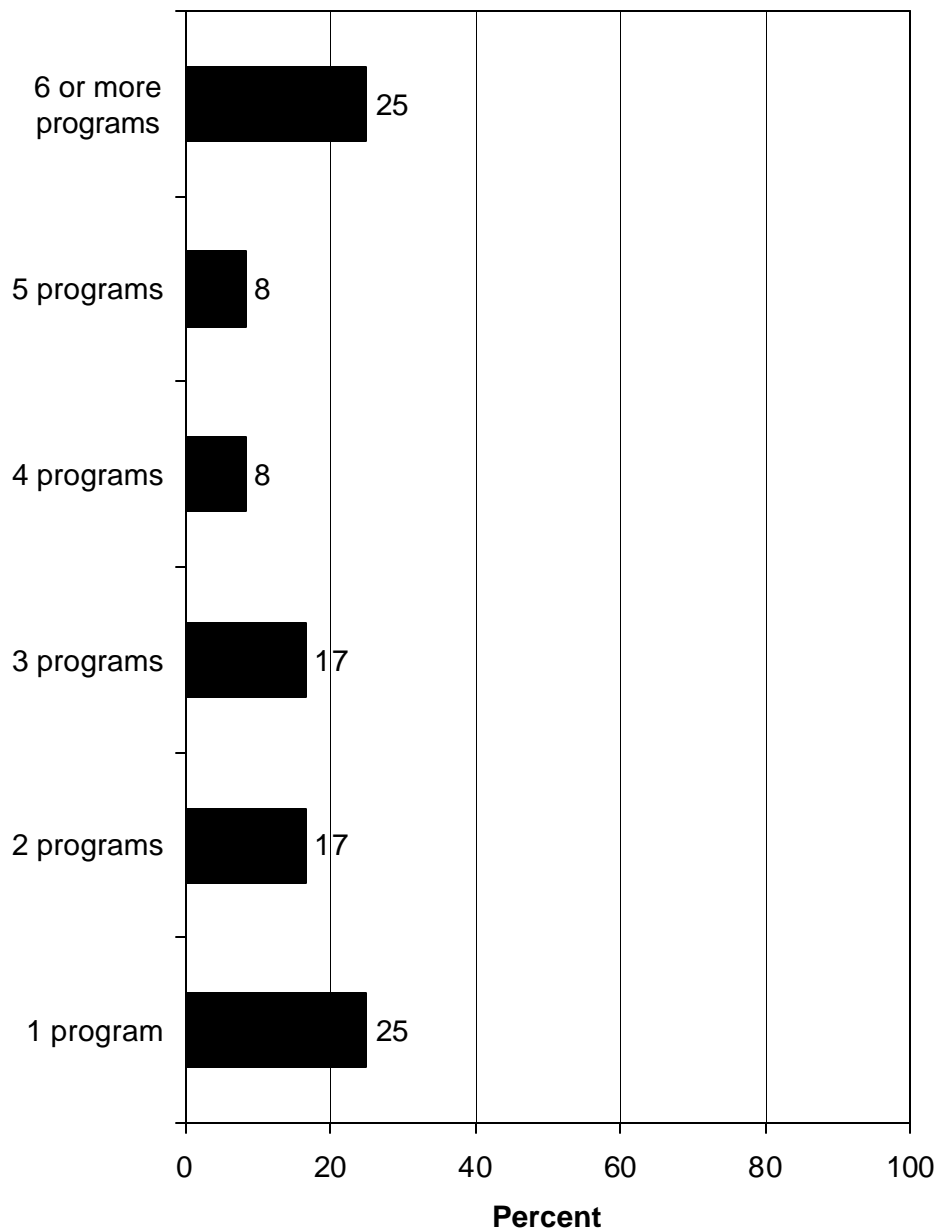
and 500 people (47%). A fifth of organizations (20%) provided training or information to more than 500 people.

- Over a quarter of organizations (27%) provided coastal resource training or information to not more than 50 people.
- The survey asked organizations that provide coastal resource training whether the training sessions were held local to the organization itself, local to the participants being served, or in an area central to both parties. Most commonly, training sessions are held in an area local to participants (47%).
- Over a quarter of organizations that provide coastal resource training (29%) conduct training sessions in an area central to both parties.
- Regarding the average length of a typical coastal resource training event, most organizations conduct training events that do not exceed one day in length: 44% of organizations that provide coastal resource training typically conduct training lasting a half-day to a day, while 28% conduct events lasting from one hour to a half-day.
- The survey asked respondents to estimate the average cost for their organization or department to develop and provide coastal resource training. Most commonly, the development and provision of coastal resource training costs between \$100 and \$500 per participant (36%).
- Over a quarter of organizations (27%) are able to develop and provide coastal resource training without cost to the organization.
- The survey asked organizations about the average cost of the registration fee for a participant to receive coastal resource training or information. Most commonly, coastal resource training is free for participants (46%).
- Nearly a third of organizations providing coastal resource training (31%) have registration fees of between \$1 and \$100, while over a fifth (23%) have fees of \$101 or more.

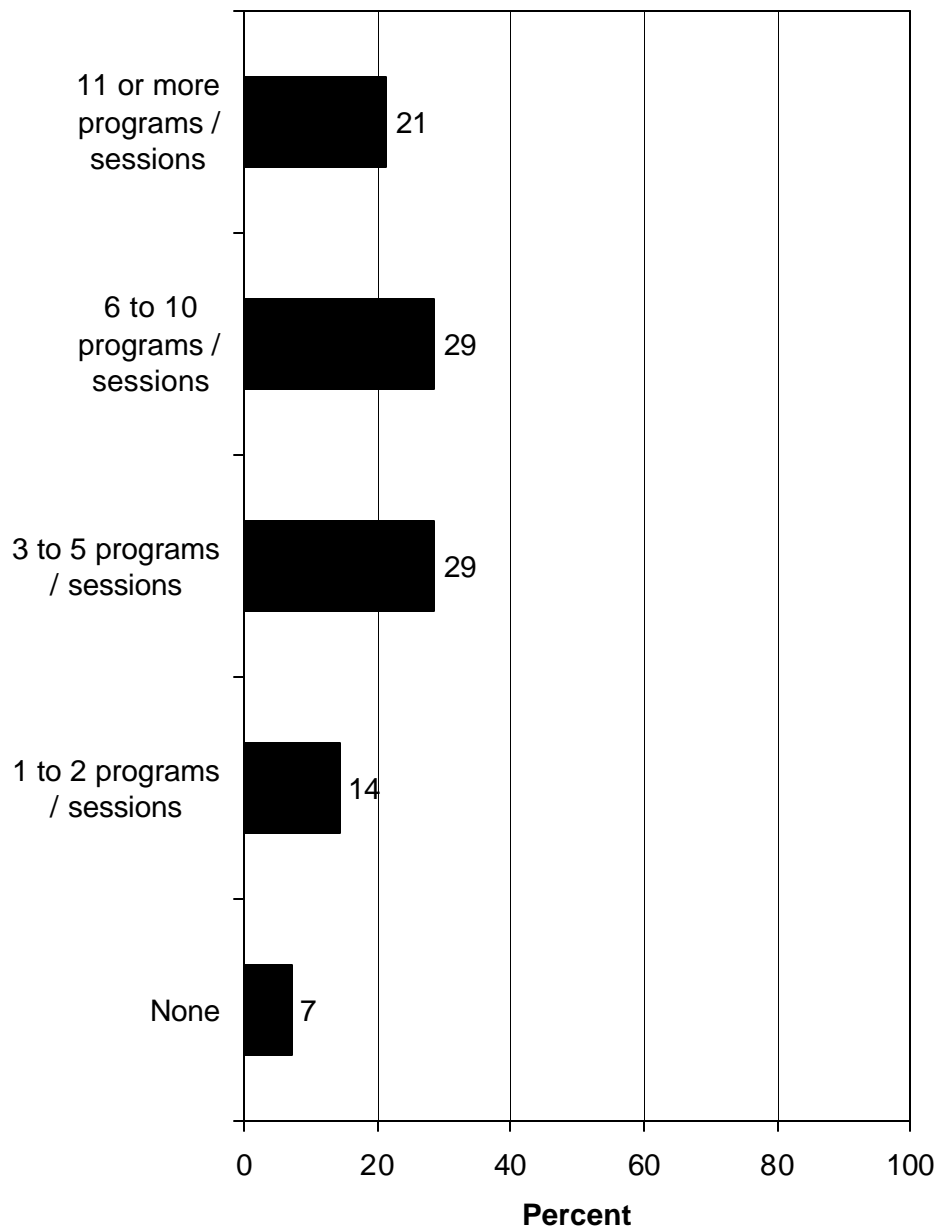
- Over a third of organizations that participate in coastal resource training (36%) budget more than \$10,000 per year for training and information purposes. More than a quarter of organizations (27%) do not budget over \$5,000 for coastal training and information, while a further 27% have no specific yearly budget for coastal training and information services.

- More than half of organizations that participate in coastal resource training (56%) have an evaluation component as part of their training programs.

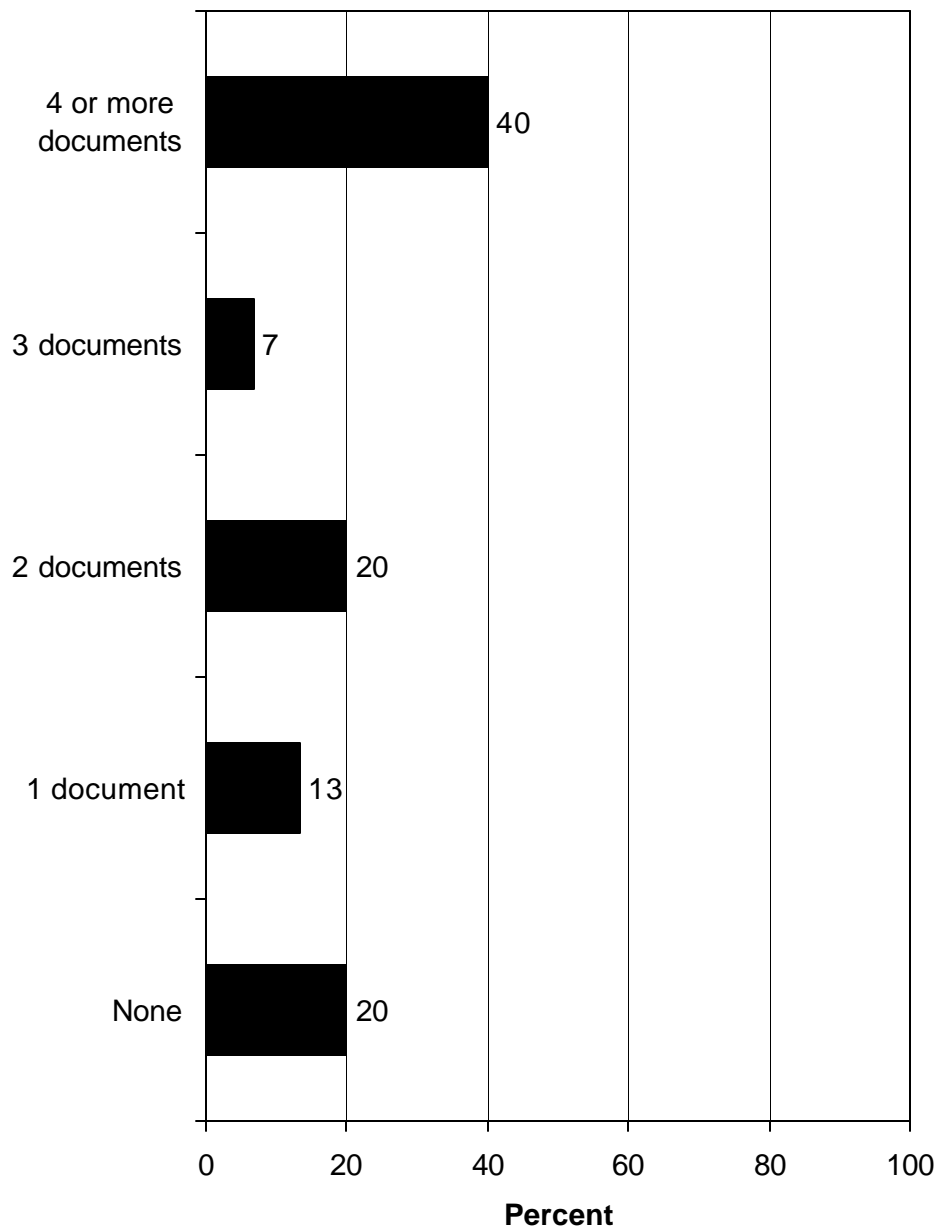
How many different coastal resource training programs does your organization/agency department/division conduct? (Market Inventory)



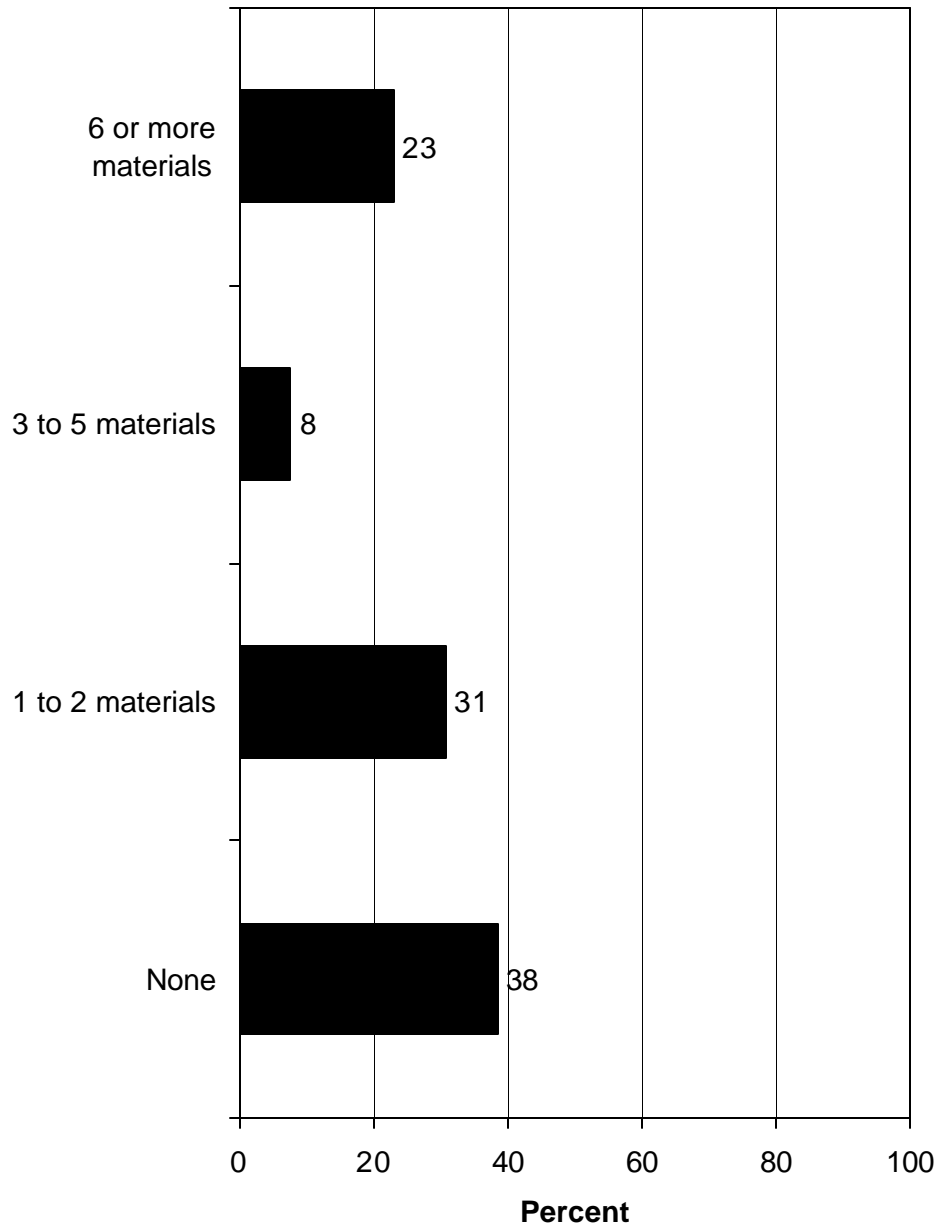
How many coastal resource training programs or information sessions did your department/division or agency/organization conduct in the past year? (Market Inventory)



How many documents related to coastal resource training or information did your department/division or agency/organization produce last year? (Market Inventory)



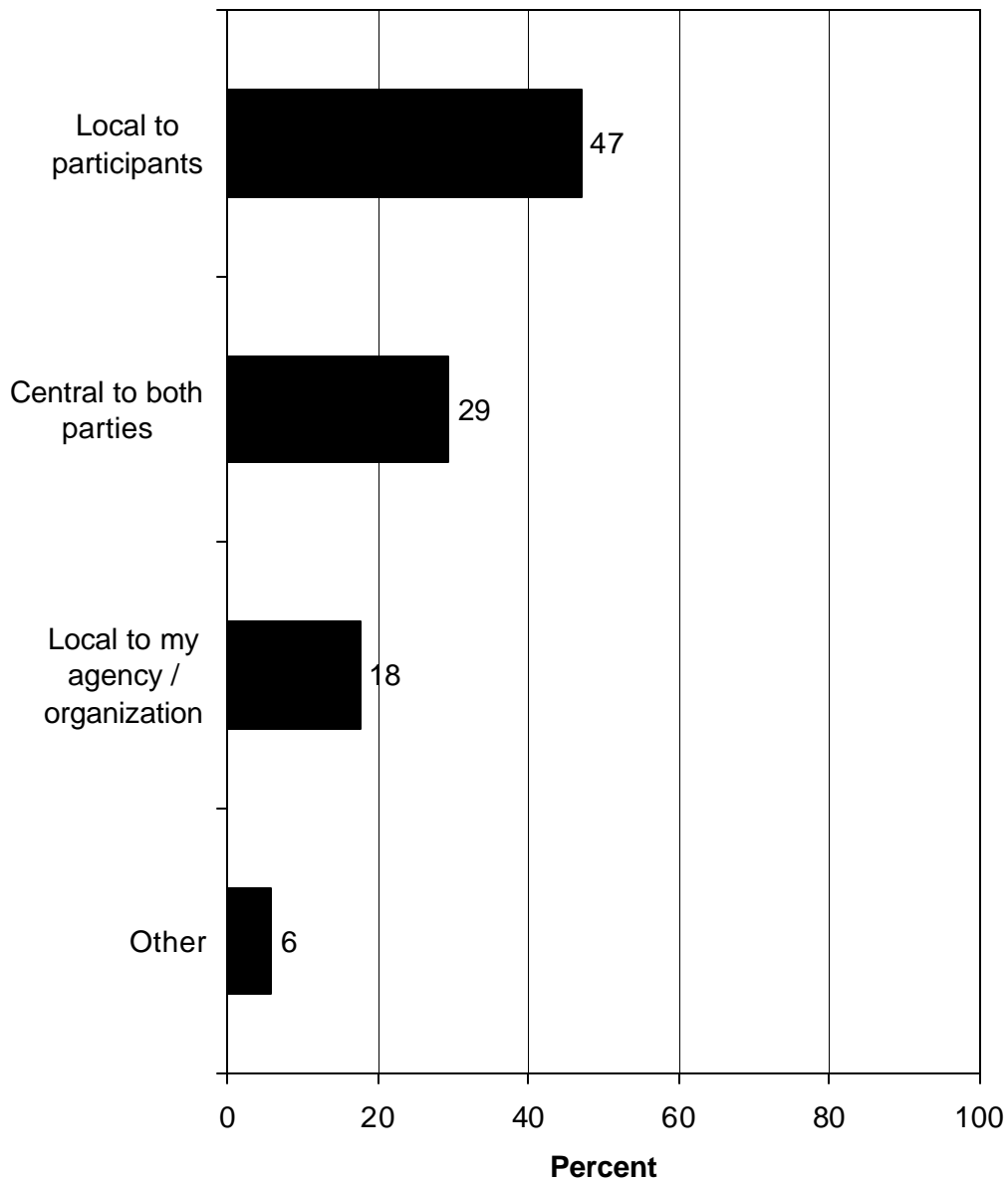
How many other training materials (multimedia, etc.) did your department/division or agency/organization produce last year? (Market Inventory)



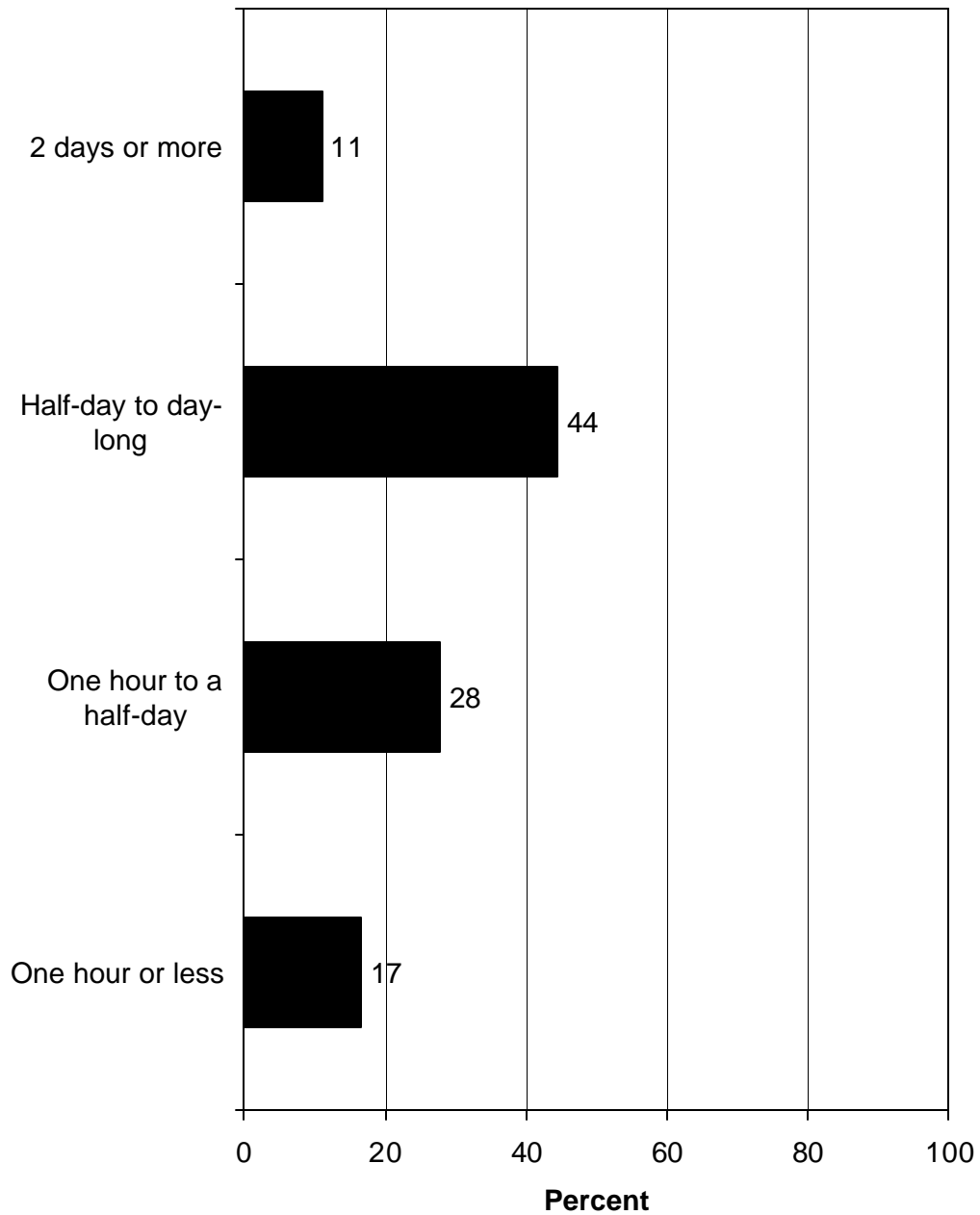
For approximately how many people did your department/division or agency/organization provide coastal resource training or information in the past year? (Market Inventory)



When providing coastal resource training, are the training sessions generally held local to your agency/organization, local to the participants being served, or are the training sessions held in an area central to both parties? (Market Inventory)



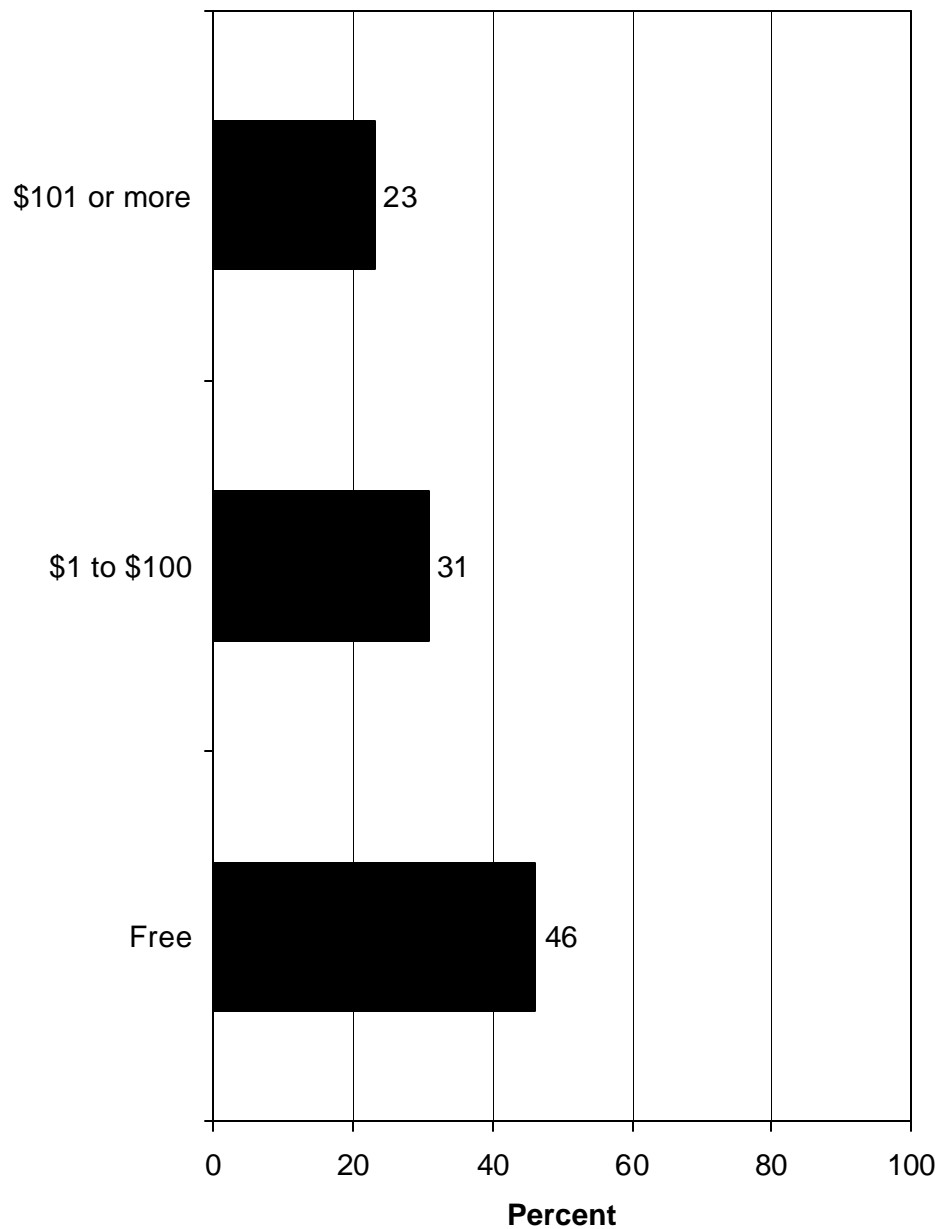
What is the average length of a typical coastal resource training event? (Market Inventory)



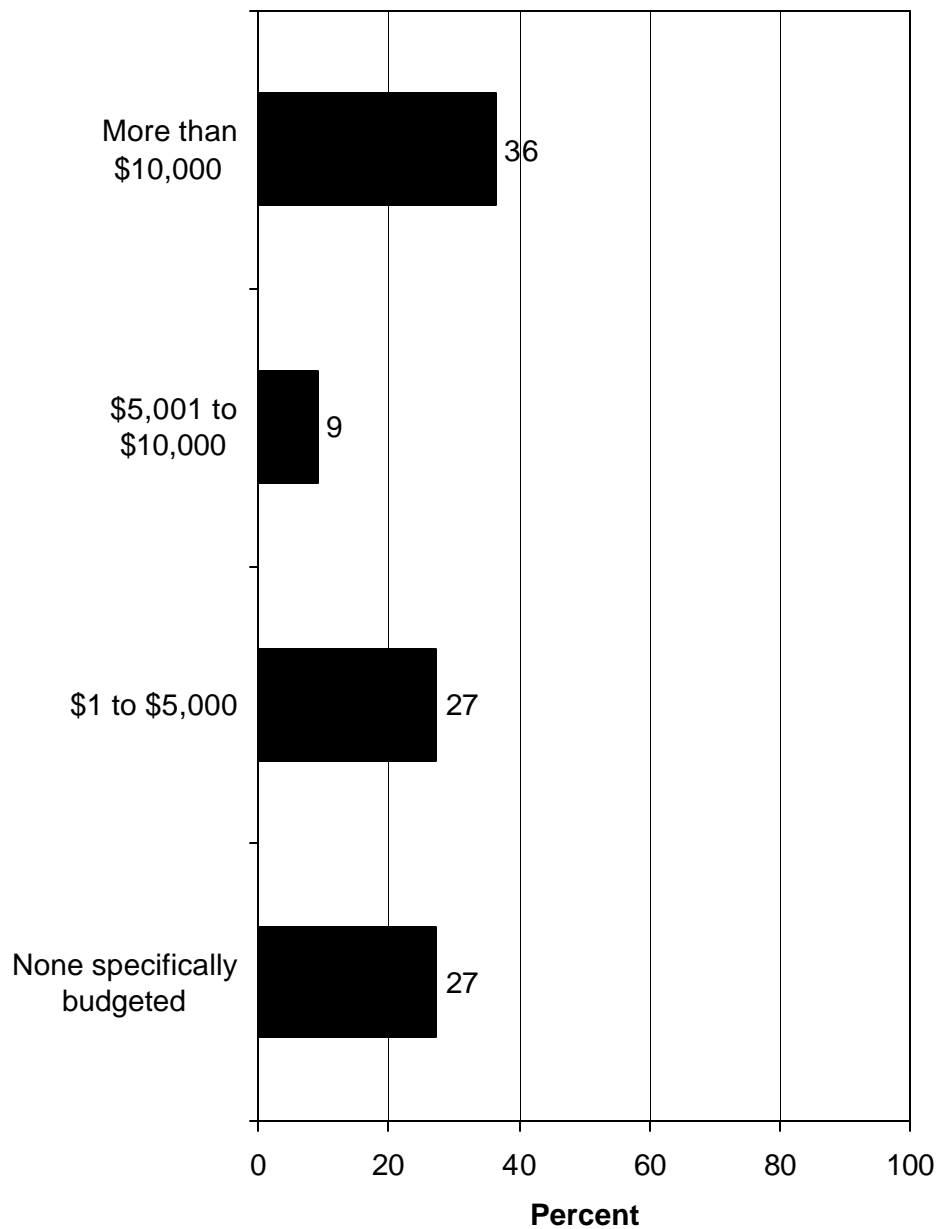
**What is the average cost, per participant, for your division/department or agency/organization to develop and provide coastal resource training or information?
(Market Inventory)**



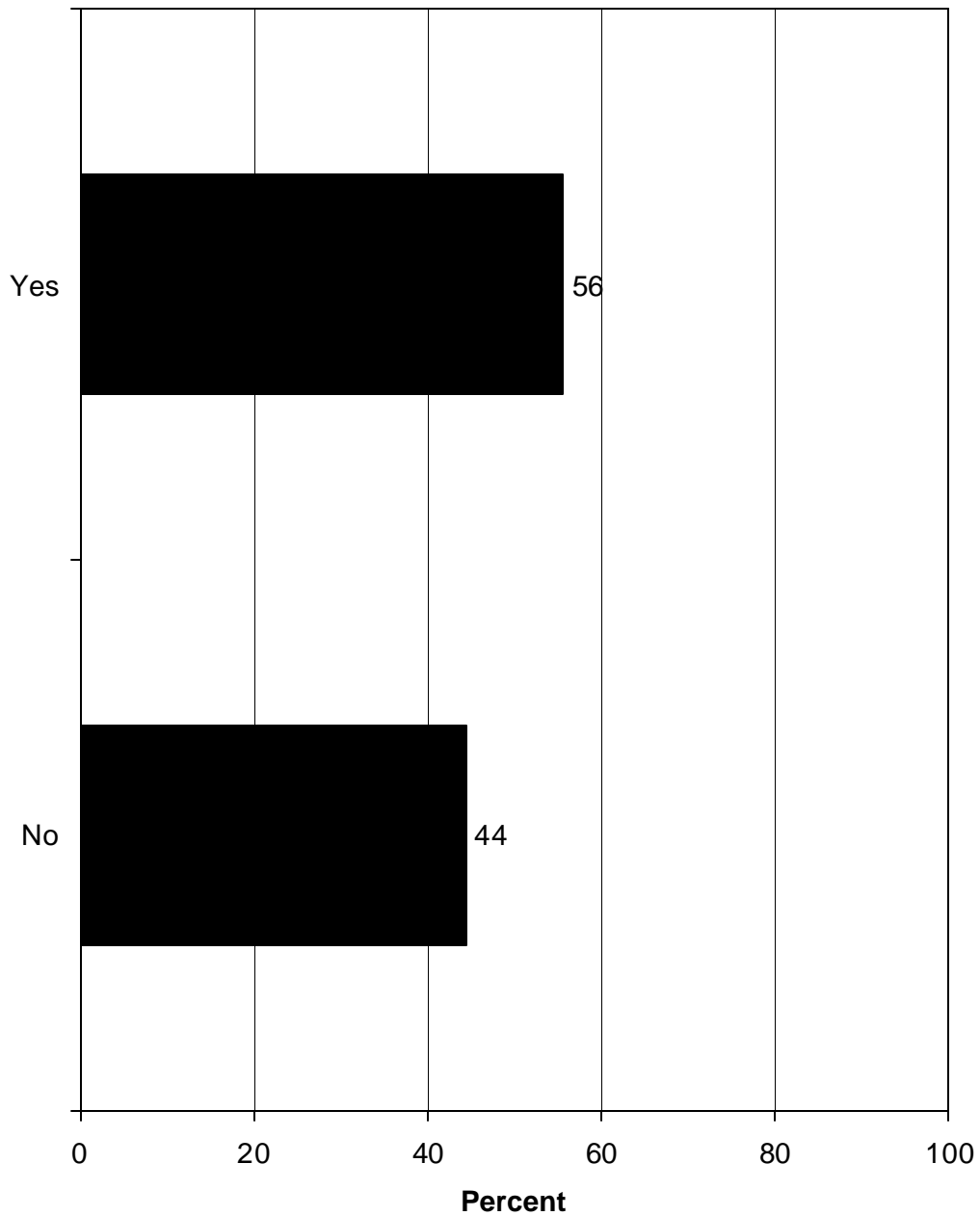
What is the average cost or registration fee for a participant to receive coastal resource training or information from your department/division or agency/organization? (Market Inventory)



Overall, what is the yearly dollar amount that is budgeted by your division/department or agency/organization specifically for coastal resource training or information? (Market Inventory)



Does your agency/organization have an evaluation component as part of its coastal resource training programs? (Market Inventory)

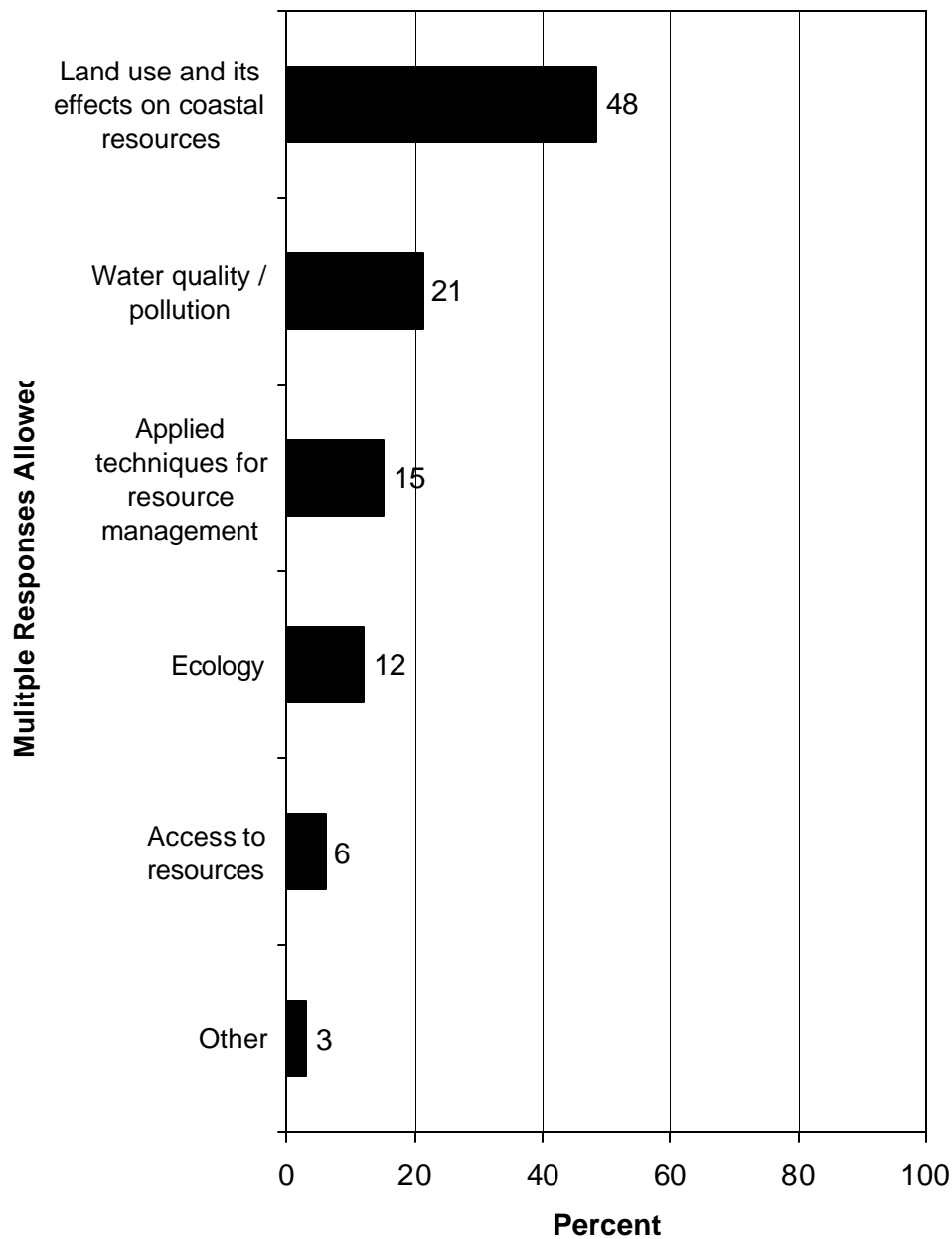


Topic Areas Offered for Coastal Resource Training

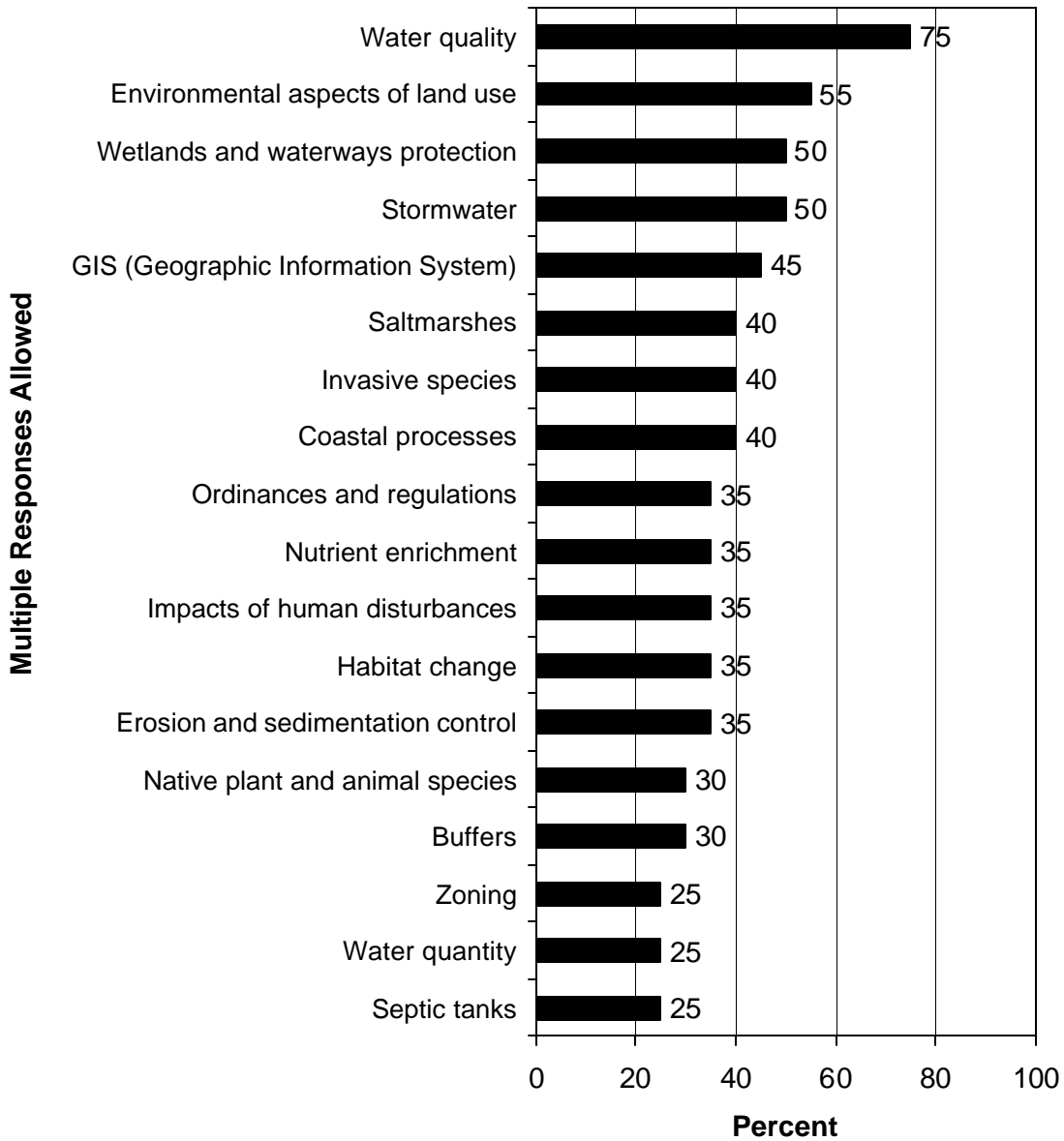
- Respondents from organizations providing coastal resource training were asked about their organization's highest priorities for coastal resource training or information topics. Land use and its effects on coastal resources was the most common response (48%), followed by water quality/pollution (21%).
 - Other topics considered by organizations to be of highest priority for training and information included applied techniques for resource management (15%), ecology (12%), and access to resources (6%).

- The survey asked about the various coastal resource information topics/skills training areas offered by organizations' coastal resource training programs. The majority of coastal resource training providers offer information and/or skills training on water quality (75%), while 55% offer training and information on the environmental aspects of land use.
 - Half of the organizations offer training and information on wetlands and waterways protection (50%) and stormwater (50%).
 - At the bottom of the list of topics/skills training areas addressed by organizations are boat/marina management, coastal construction, docks and piers, renewable energy, sustainable building: each of these topic areas is offered by 5% of coastal resource training organizations.

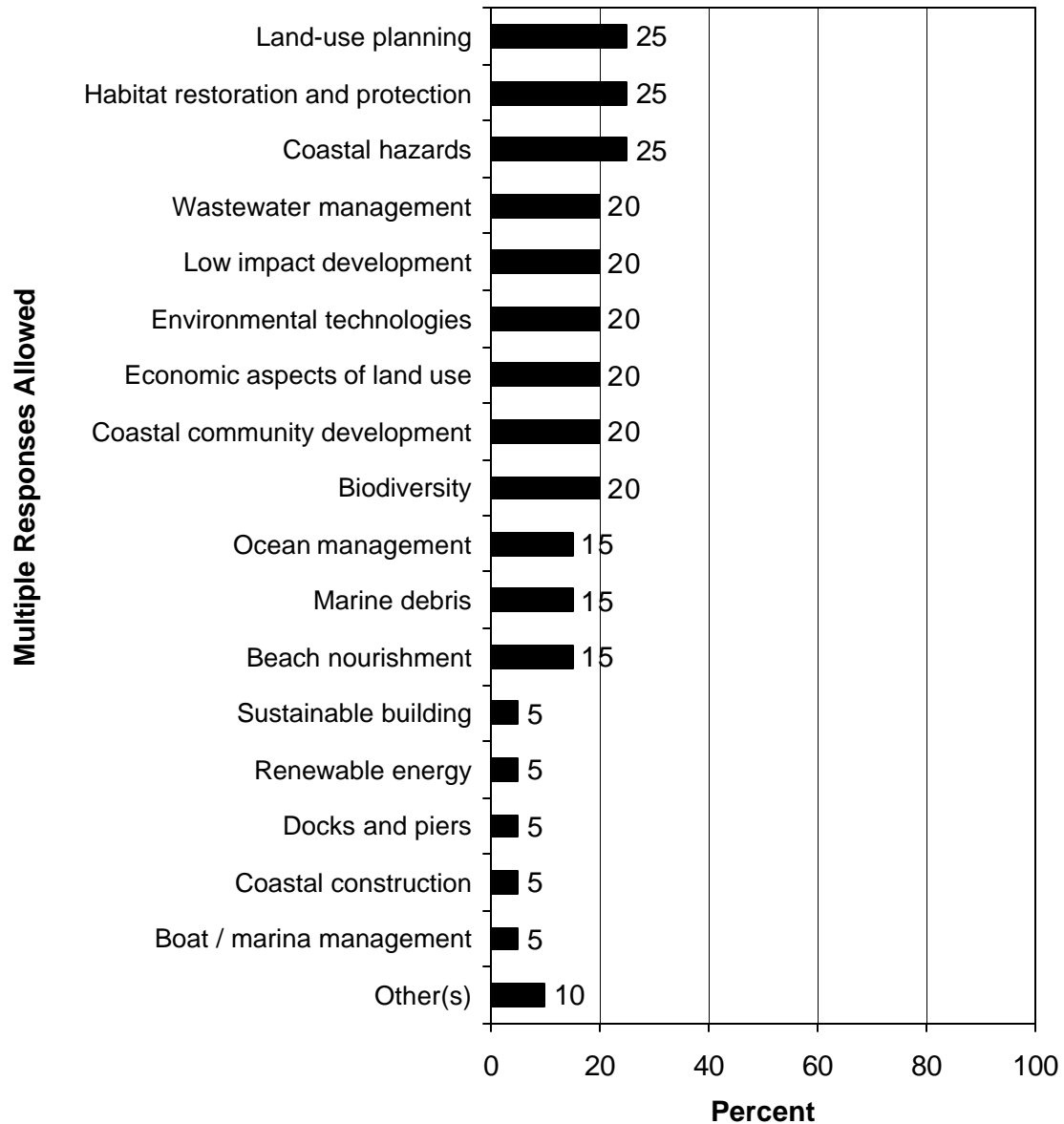
Highest priority coastal resource training or information topics. (Market Inventory)



Which of the following coastal resource information topics/skills training does your agency/organization offer in its coastal resource training program? (Part 1.) (Market Inventory)



Which of the following coastal resource information topics/skills training does your agency/organization offer in its coastal resource training program? (Part 2.) (Market Inventory)



Groups Targeted for Coastal Resource Training

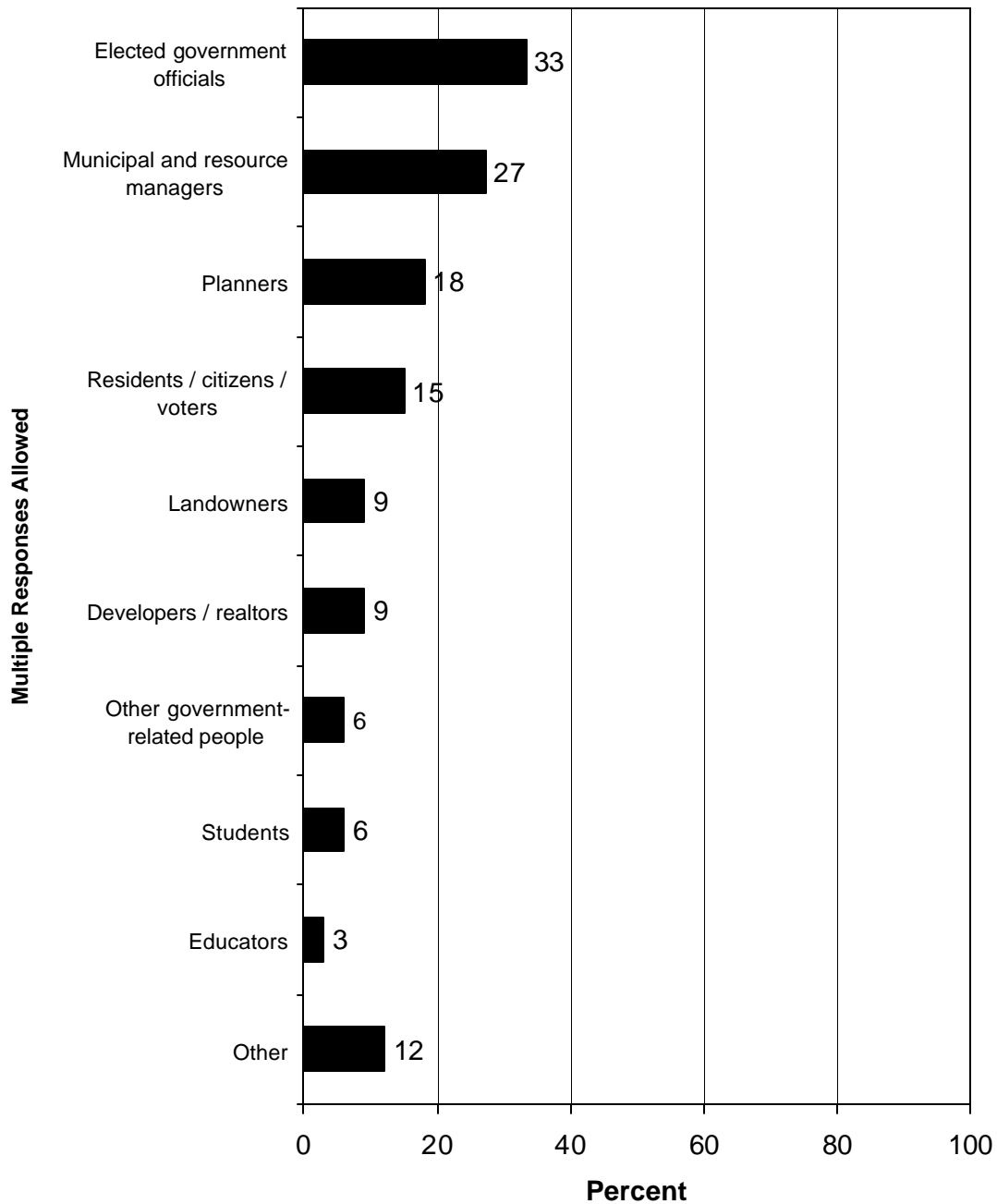
- The survey asked respondents about the highest priority participant groups for coastal resource training or information. Most commonly, organizations providing coastal resource training consider elected government officials (33%) to be of highest priority for training or information, followed by municipal and resource managers (27%), planners (18%), and residents/citizens/voters (15%).

- Respondents from organizations providing coastal resource training were asked about the general types of participants who utilize their coastal resource training and information services. The majority of respondents (56%) named volunteer organizations as common participants, followed by appointed officials (44%), universities (38%), and locally elected decision-makers (38%).

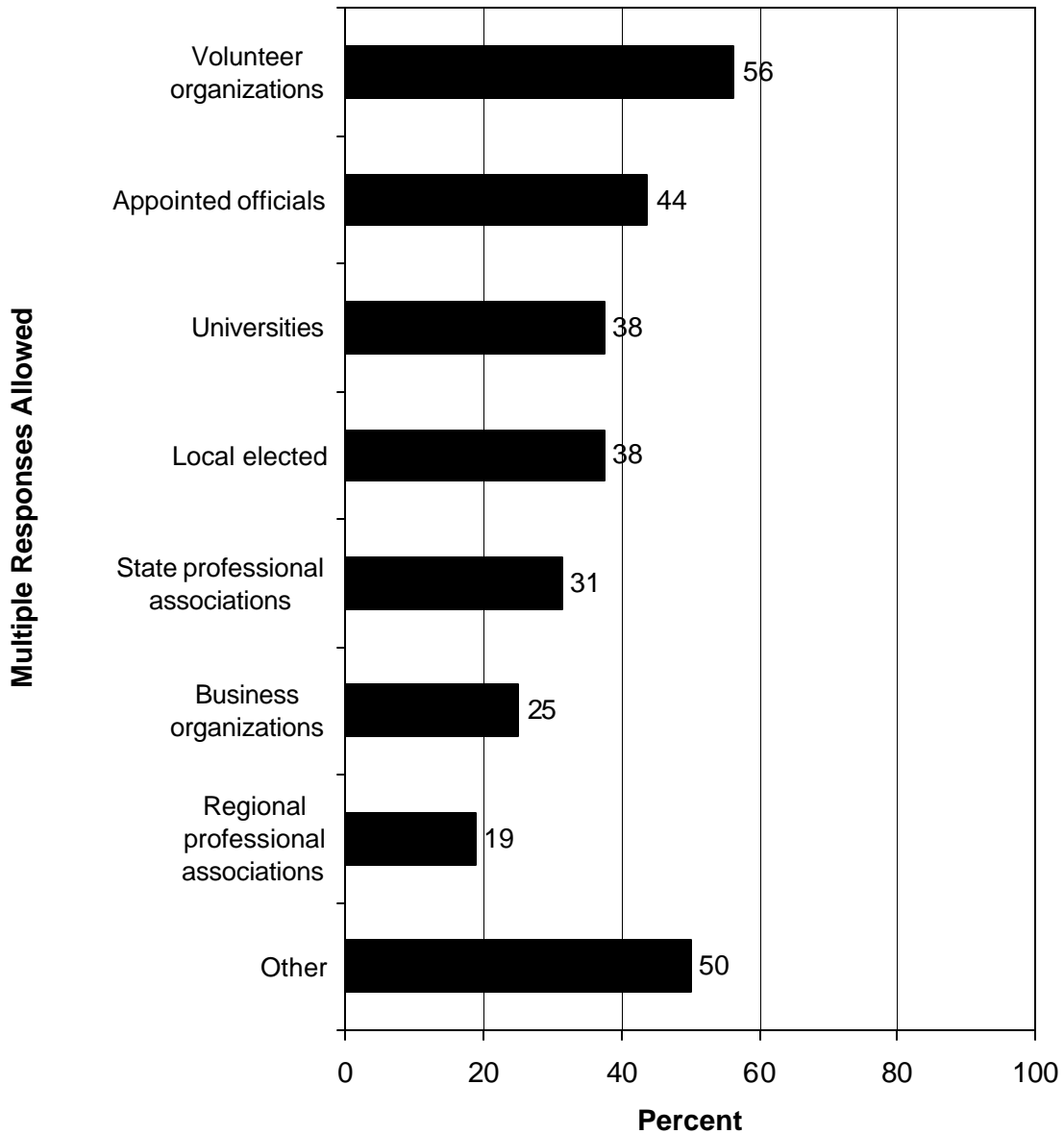
- Following the question on general participant types, the survey asked about the specific positions of people who utilize coastal resource training and information services from organizations that provide coastal resource training. More than three-quarters of respondents (76%) said that members of the general population utilize their organization's training and information services, while 59% named chapters of environmental organizations.
 - A majority of respondents named Environmental Protection Agency personnel (53%), environmental educators (53%), and environmental consultants (53%) as specific groups utilizing their organizations' coastal resource training and information services, as well.

- The survey asked about the groups coastal resource training organizations currently target for training and information. Most commonly, organizations providing coastal resource training target members of the general population (65%), followed by marine resource agency personnel (41%), coastal planners (41%), coastal regulators (41%), and environmental educators (35%).
 - At the bottom of the list of groups targeted for coastal resource training are commercial property owners associations, Rotary International, and tourist boards.

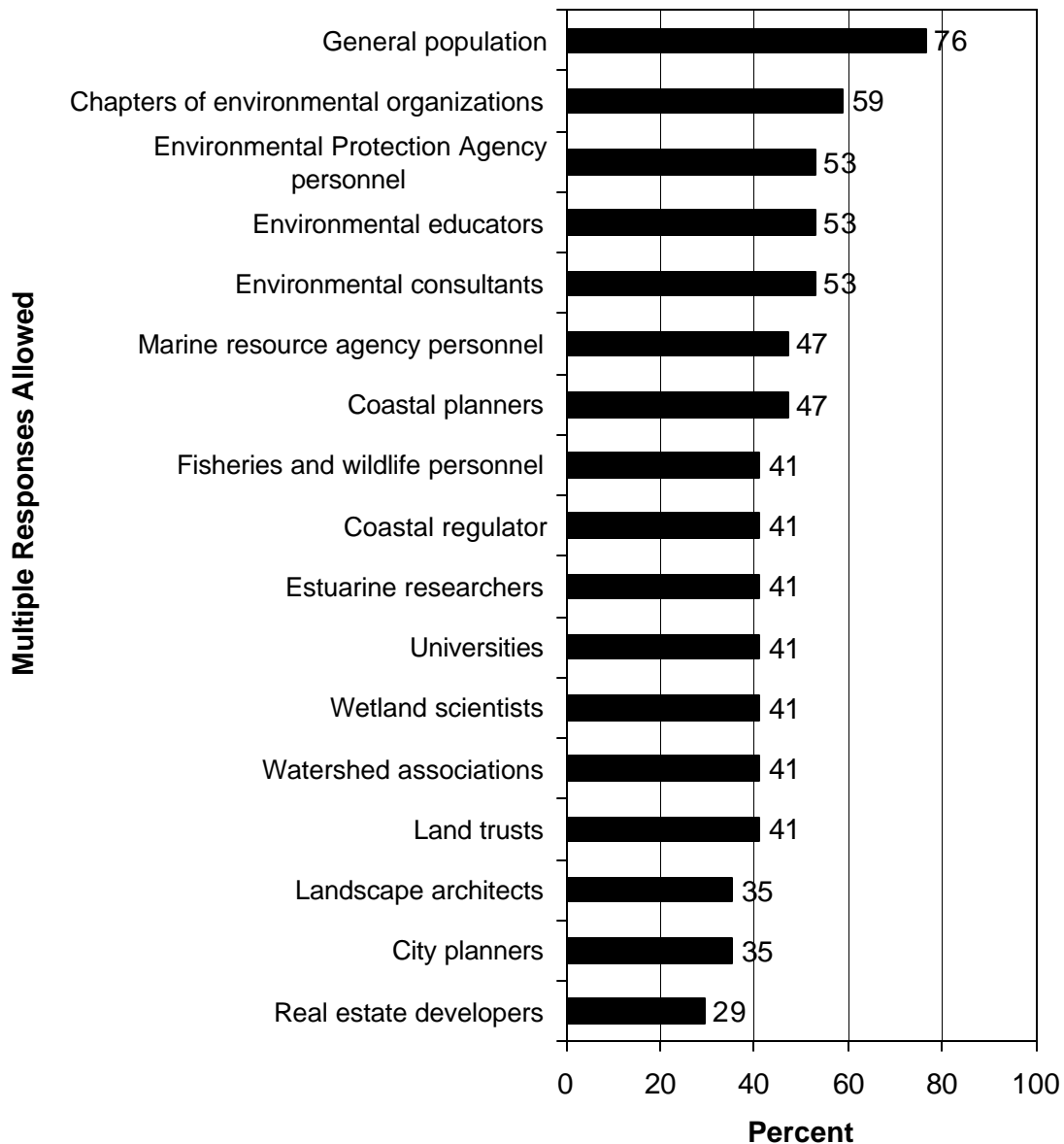
**Participant groups thought to be the highest priority for coastal resource training or information.
(Market Inventory)**



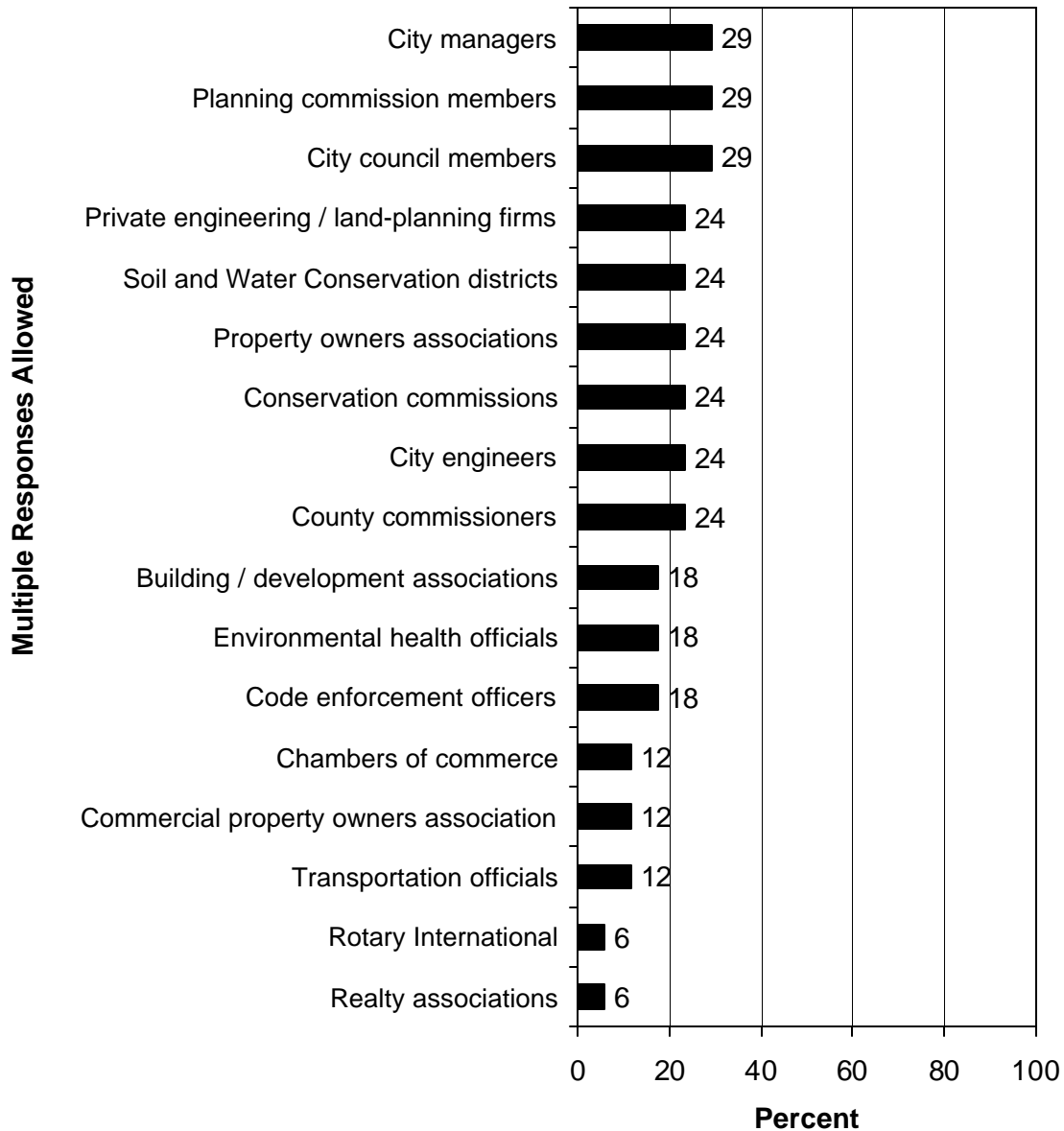
**Which of the following types of participants best describe the people that utilize your department/division or agency/organization's coastal resource training or information services?
(Market Inventory)**



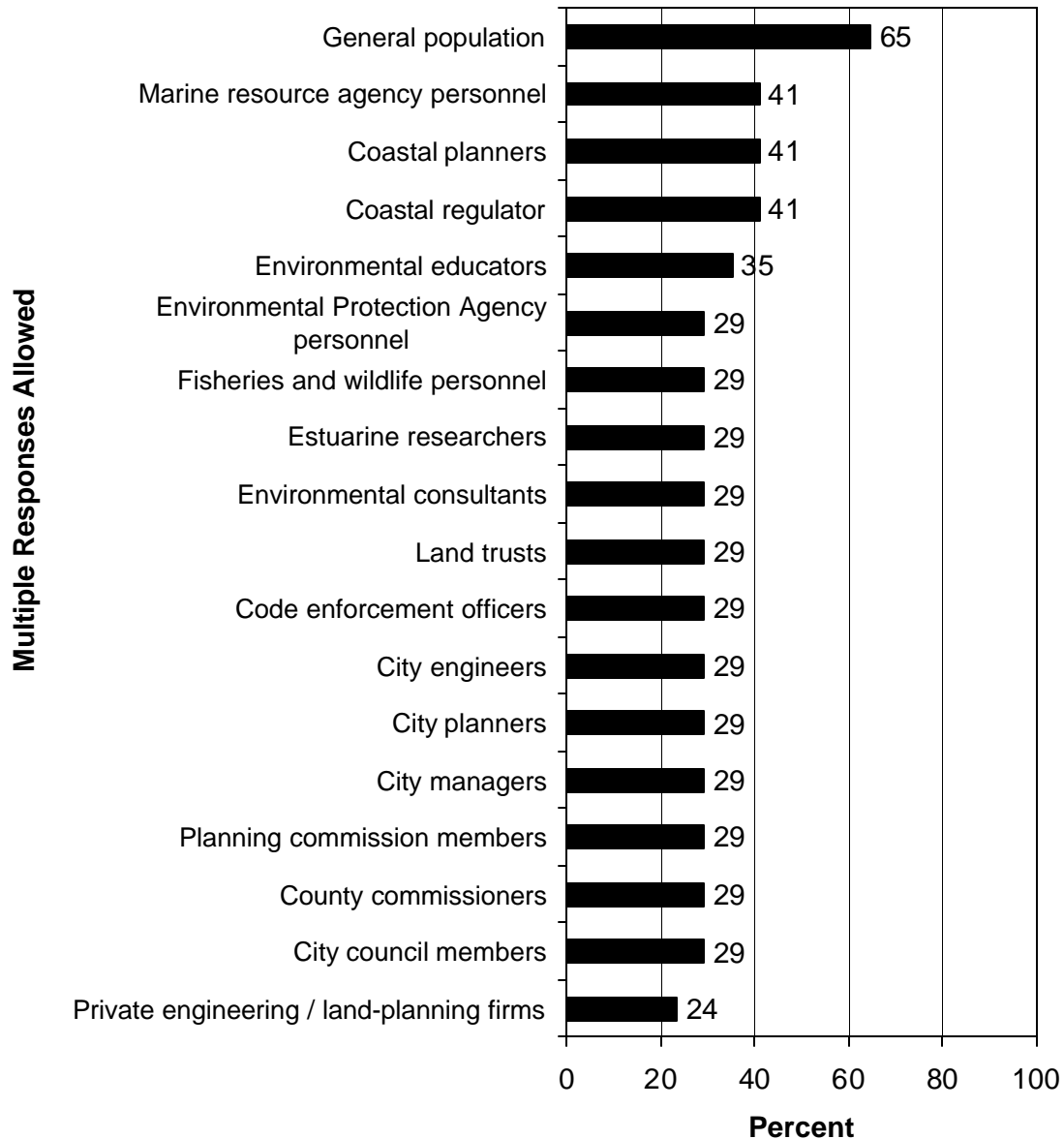
**Specifically, which of the following best describes the positions of the people that utilize your department/division or agency/organization's coastal resource training or information services?
(Part 1.) (Market Inventory)**



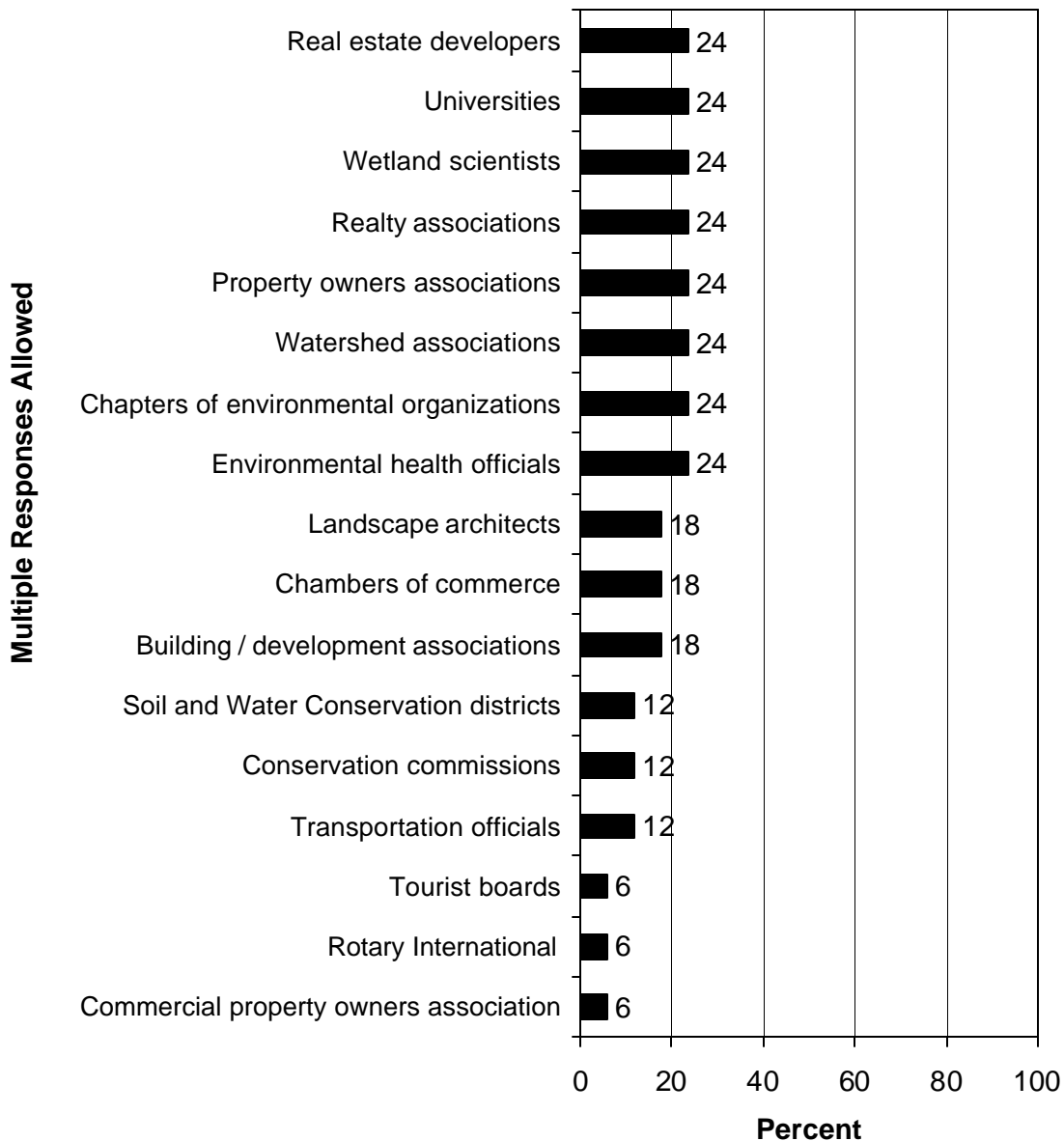
**Specifically, which of the following best describes the positions of the people that utilize your department/division or agency/organization's coastal resource training or information services?
(Part 2.) (Market Inventory)**



Which of the following groups does your department/division or agency/organization currently target for coastal resource training or information? (Part 1.) (Market Inventory)



Which of the following groups does your department/division or agency/organization currently target for coastal resource training or information? (Part 2.) (Market Inventory)



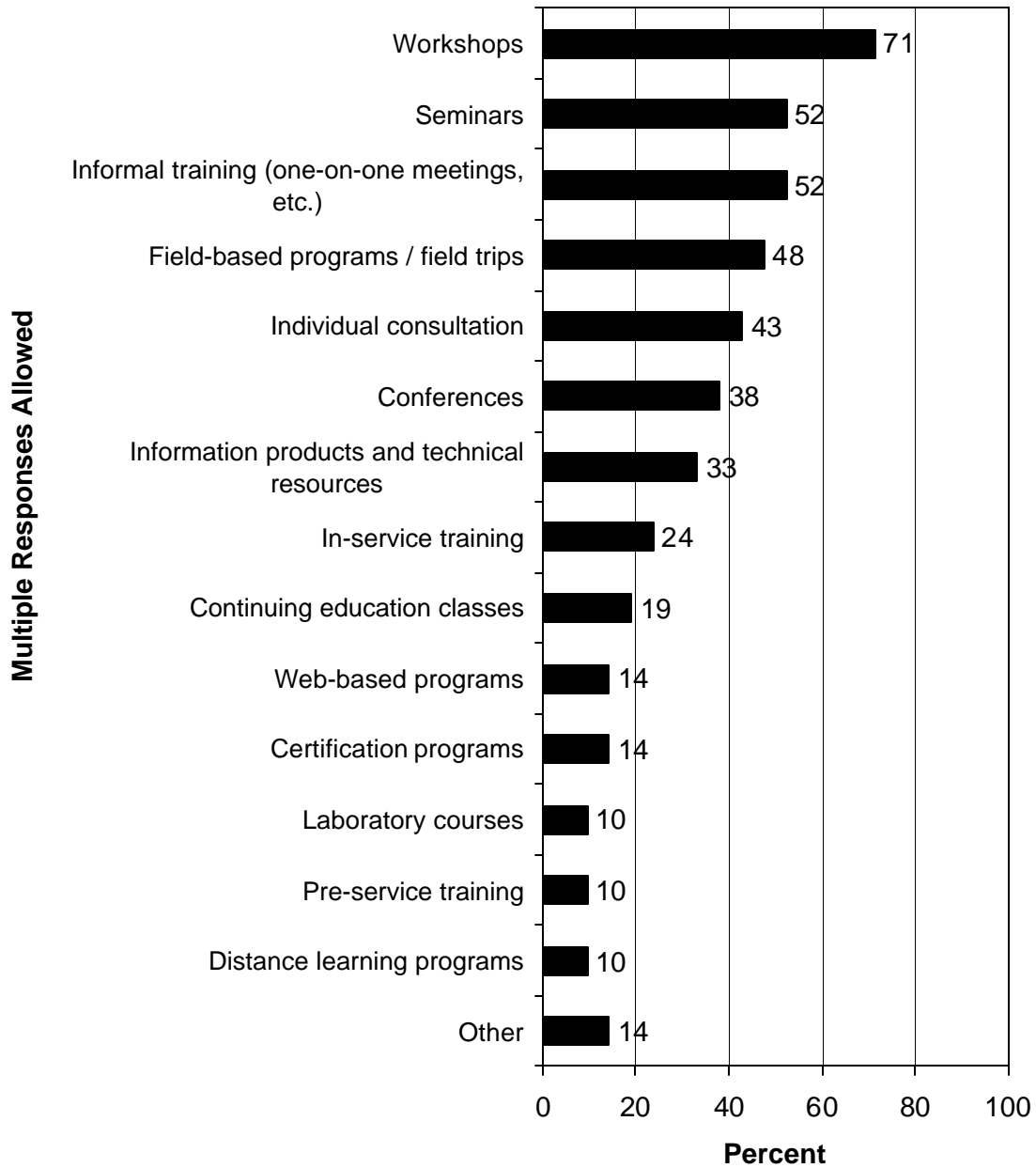
Delivery Methods Offered for Coastal Resource Training

- The survey asked about the delivery methods for coastal resource training currently offered by organizations: workshops (71%), seminars (52%), and informal training (such as one-on-one meetings) (52%) topped the list.
 - More than a third of organizations currently offer field-based programs/field trips (48%), individual consultation (43%), and conferences (38%) as delivery methods for coastal resource training.

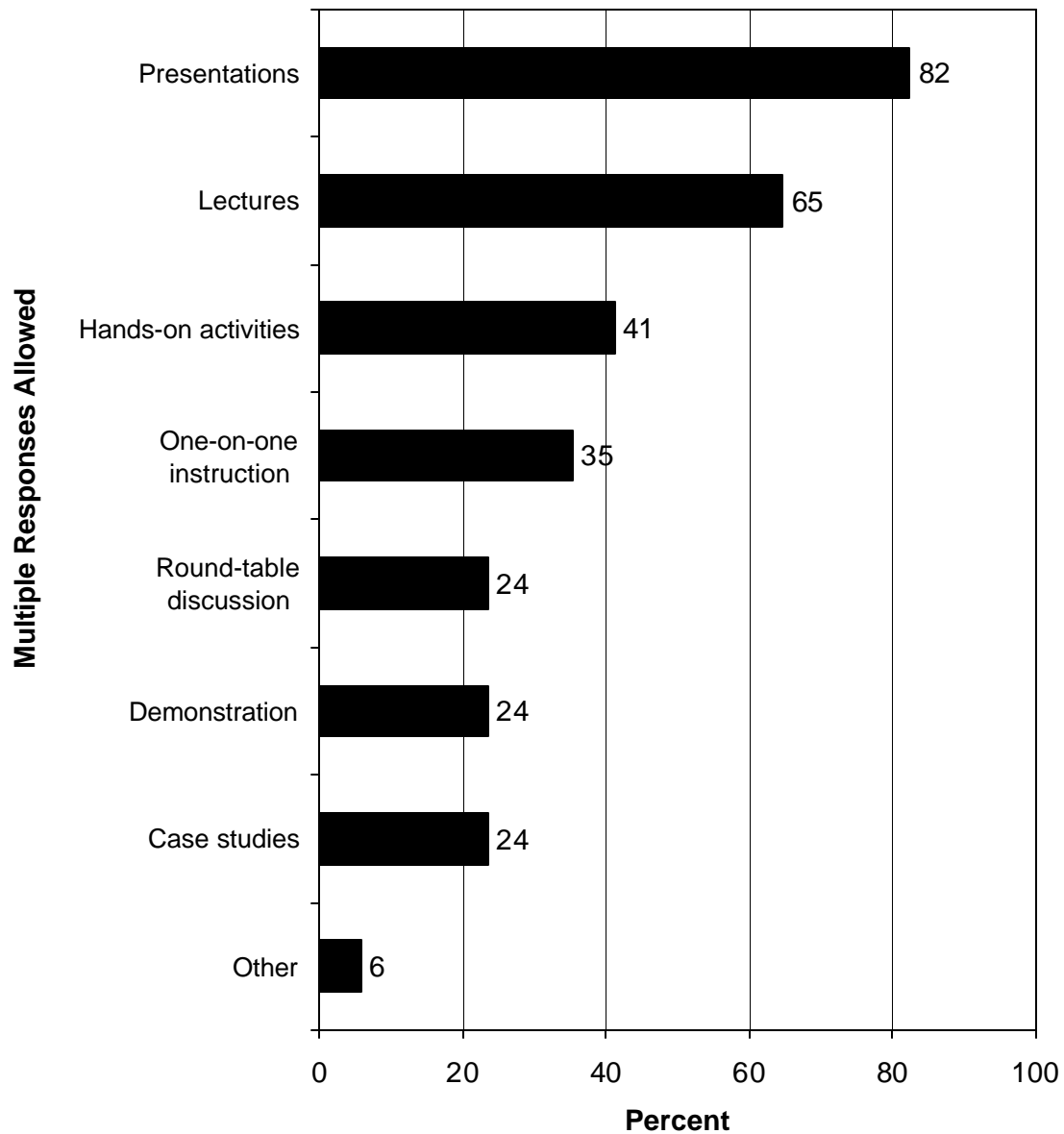
- Additional delivery methods utilized by a majority of organizations to provide coastal resource training include presentations (82%) and lectures (65%).

- Regarding additional types of informal training delivery methods, 69% of coastal resource training organizations utilize publications (such as brochures and newsletters).

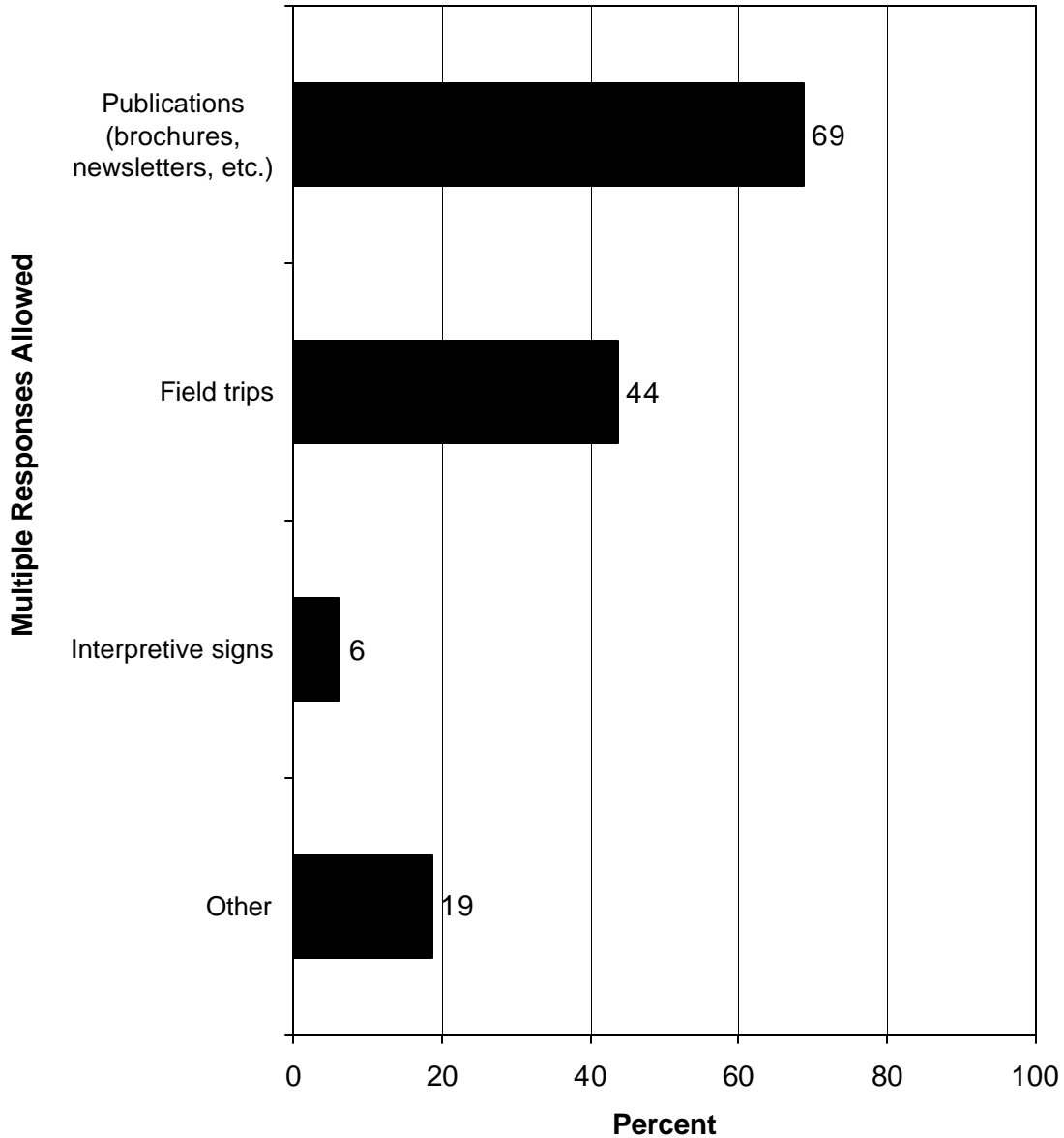
What types of coastal resource training delivery methods does your agency/organization currently offer? (Market Inventory)



**What other coastal resource training delivery methods does your agency/organization utilize?
(Market Inventory)**



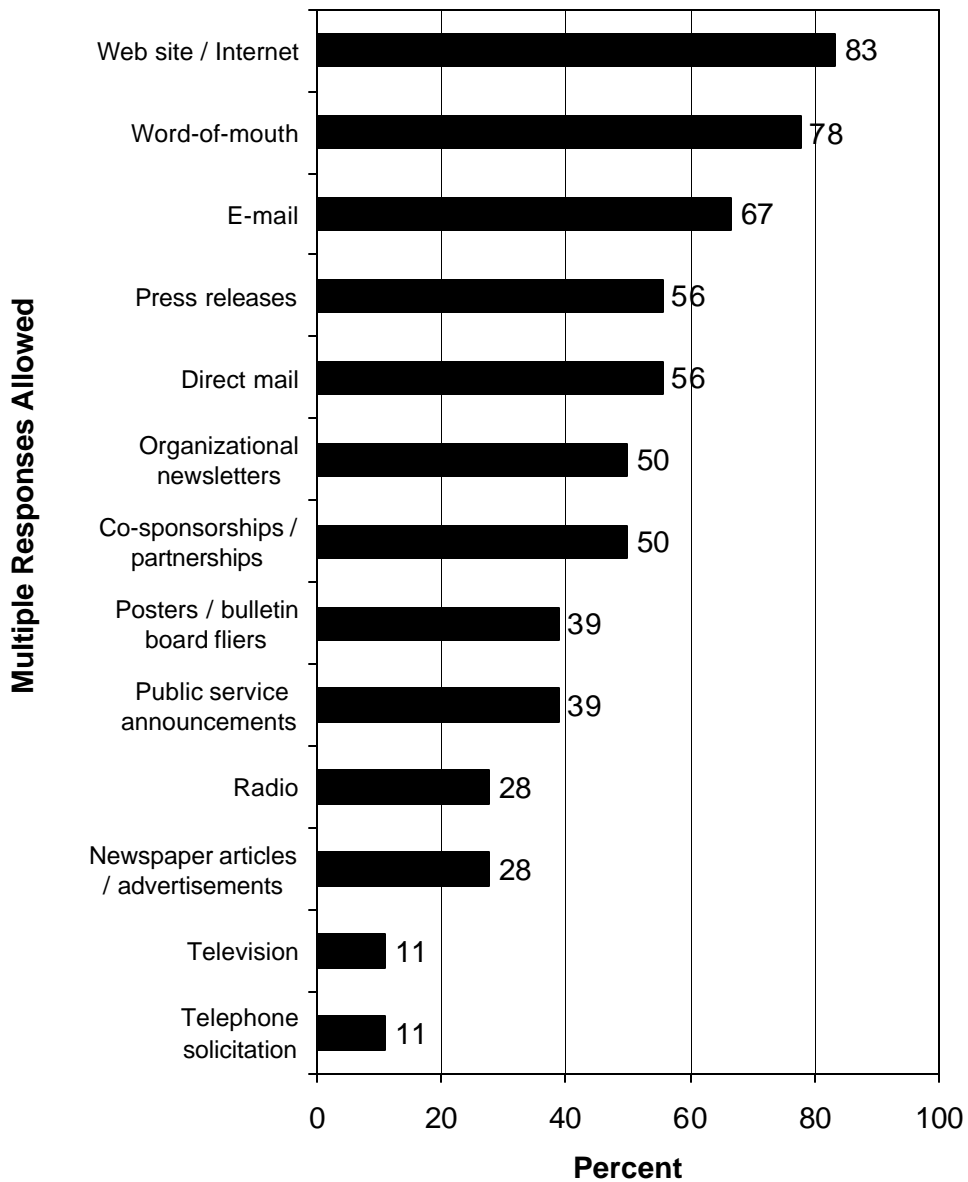
If your agency/organization offers informal training delivery methods, please indicate the specific type of informal training your agency/organization offers. (Market Inventory)



Promotional Tools Used to Advertise Coastal Resource Training

- Regarding the various promotional tools used by organizations to advertise their training and information programs, 83% of organizations use Web sites and the Internet, 78% use word-of-mouth, and 67% of organizations use e-mail.
 - Press releases and direct mail are each used by 56% of organizations providing coastal resource training and information programs.

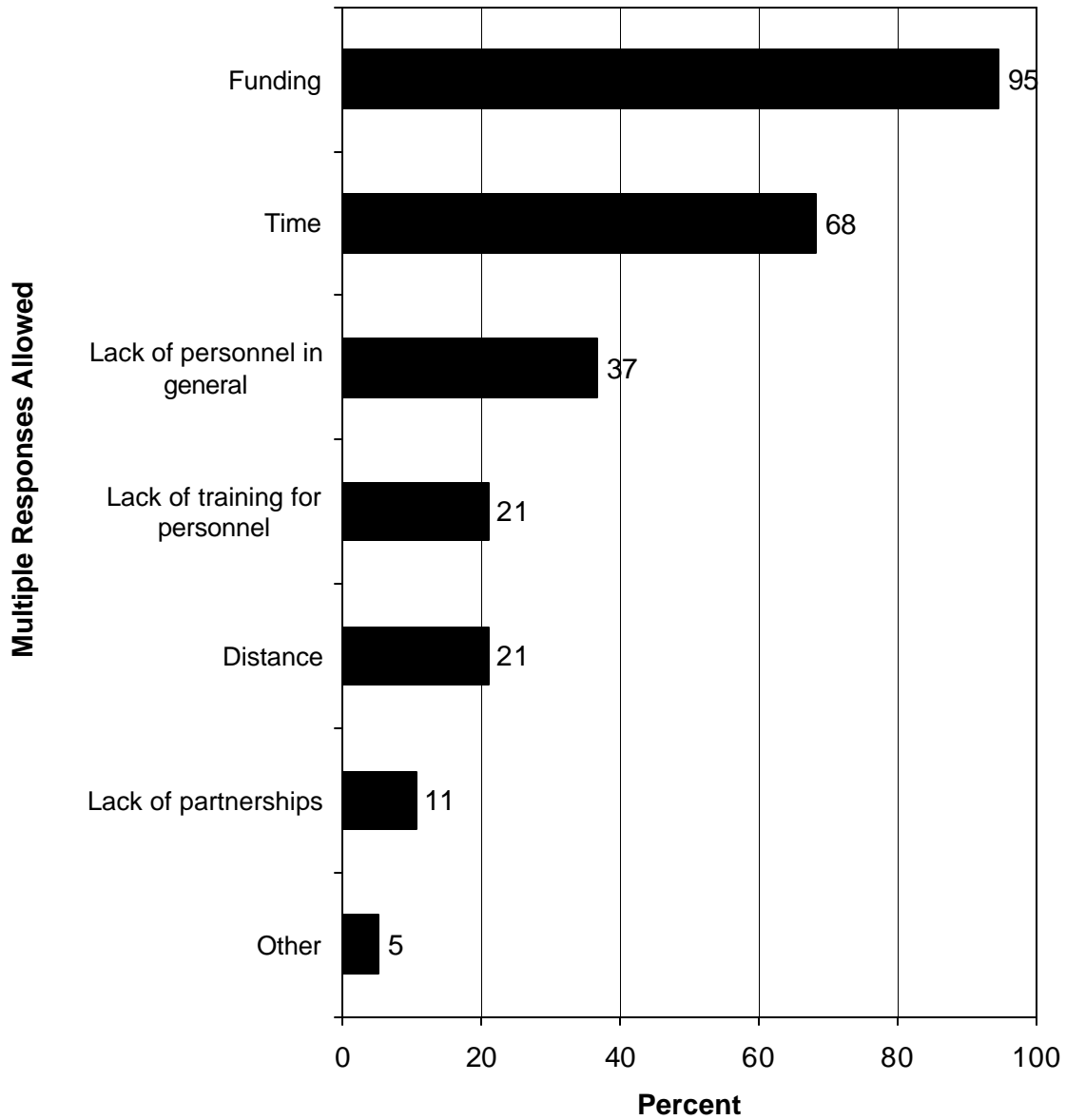
**Which of the following promotional tools does your department/division or agency/organization use to advertise your training or information programs?
(Market Inventory)**



Barriers to Offering Coastal Resource Training

- The survey asked about potential barriers organizations face regarding the providing of coastal resource training and information. Overwhelmingly, respondents indicated that funding was a barrier: 95% of them named it as a barrier. Additionally, more than two-thirds of respondents (68%) said that time is a barrier to providing coastal resource training and information.

**What are the barriers, if any, that your agency/organization faces regarding the providing of coastal resource training or information?
(Market Inventory)**

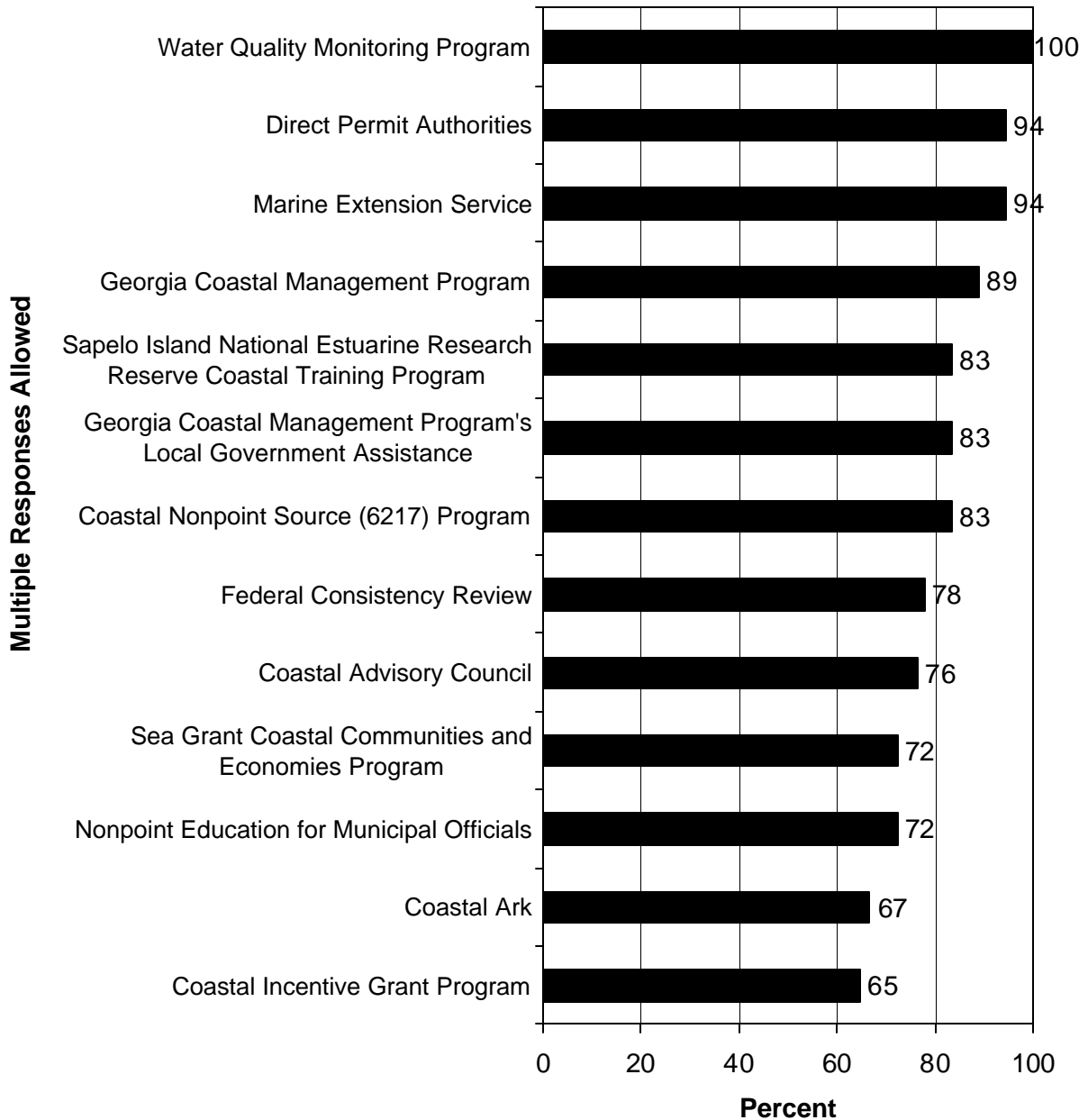


FAMILIARITY WITH COASTAL RESOURCE PROFESSIONAL DEVELOPMENT PROGRAMS

- As in the needs assessment survey, the market inventory survey asked about respondents' familiarity with 13 different sub-programs of the Georgia Coastal Management Program and the SINERR-Coastal Training Program and its partnering organizations.

- Majorities of coastal resource organization respondents expressed familiarity with all 13 sub-programs about which the survey asked. At the top of the list was the Water Quality Monitoring Program (100%), with uniform familiarity among respondents. Direct Permit Authorities (94%), the Marine Extension Service (94%), and the Georgia Coastal Management Program (89%) followed.
 - At the bottom of the list (though still recognized by a majority of respondents) were the Coastal Incentive Grant Program (65%) and Coastal Ark (67%).

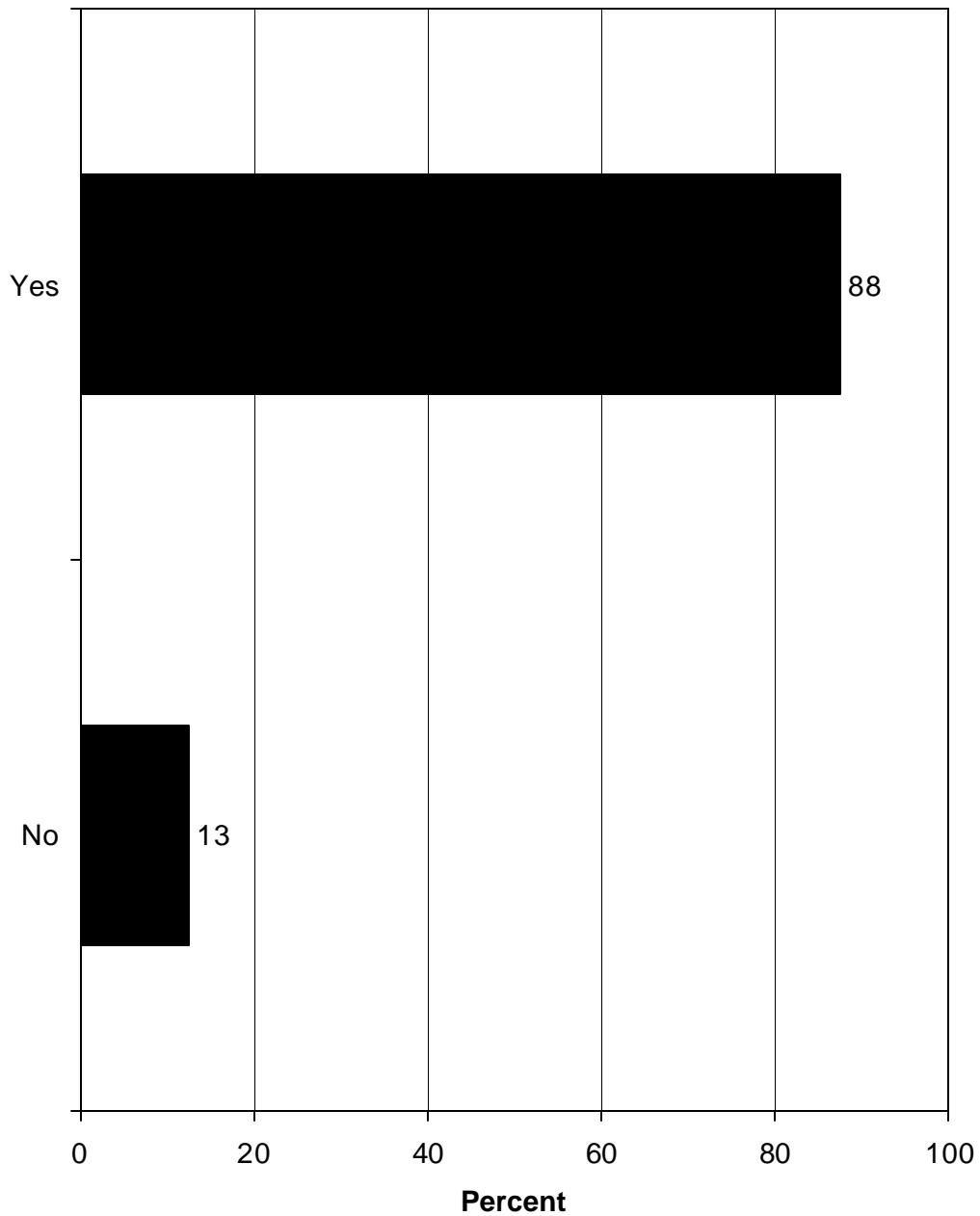
Percent who indicated being very or somewhat familiar with the following programs before this survey. (Market Inventory)



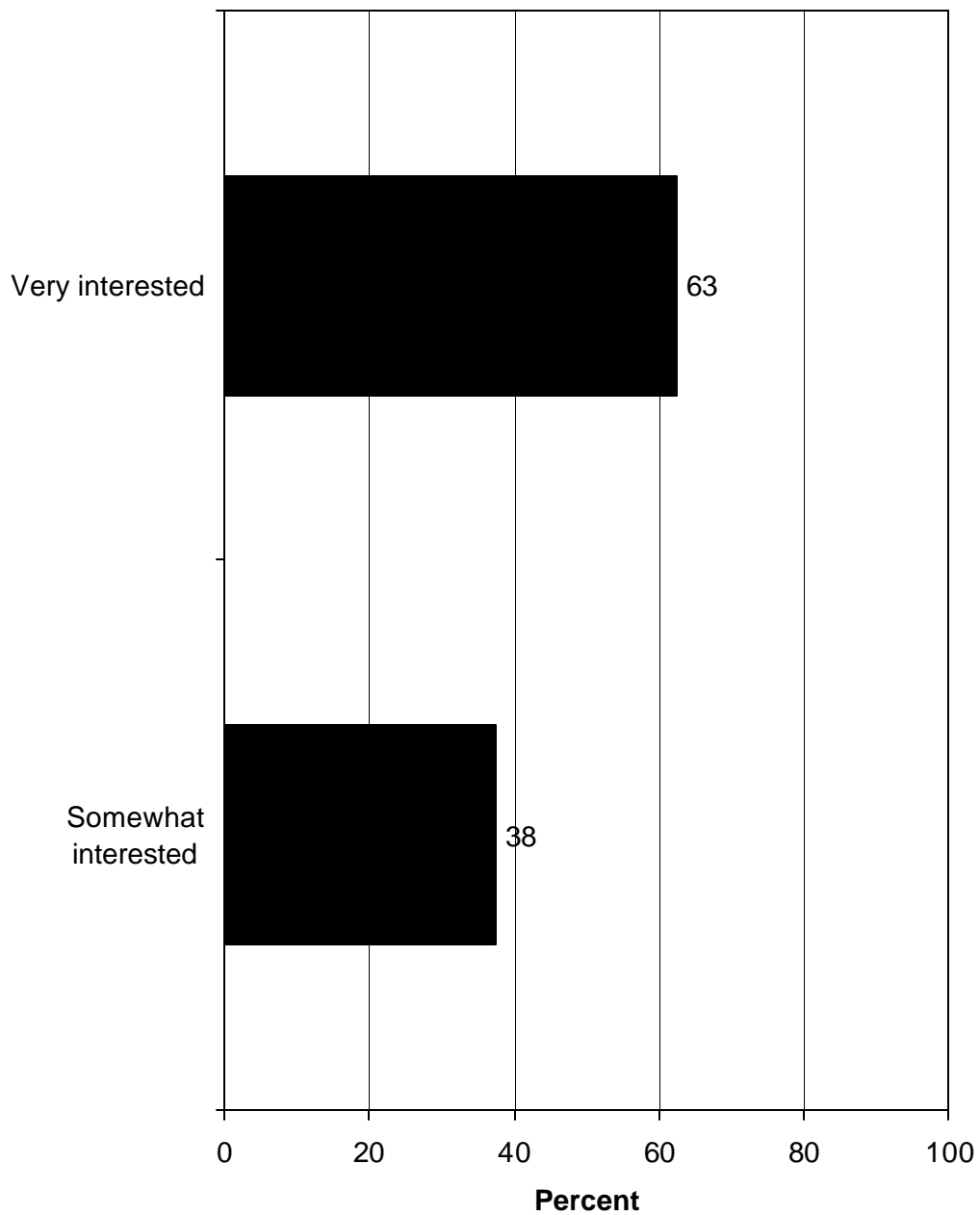
PARTNERSHIPS AMONG COASTAL RESOURCE TRAINING ORGANIZATIONS

- The survey asked about partnerships between organizations providing coastal resource training and information. The overwhelming majority of organizations (88%) partner with other organizations.
- In addition to existing partnerships, all respondents indicated being interested in having their organization partner with others to provide coastal resource training and information: 63% said they were *very* interested.
- The most common organizations named by respondents as being partnership organizations were the Georgia Department of Natural Resources (18%), the Sapelo Island National Estuarine Research Reserve (15%), and the National Oceanic and Atmospheric Administration (9%).
- The survey asked what things organizations needed in order to partner with other organizations to provide coastal resource training and information. The top answer was funding (82%), followed by facilities and logistics (55%) and marketing/promotion assistance (55%).
- When asked what their organization could bring to a partnership with another organization, all respondents said they would be able to provide content expertise/technical assistance. A further 92% said they could provide presenters/trainers, while 58% of respondents said their organization could provide marketing/promotion assistance.

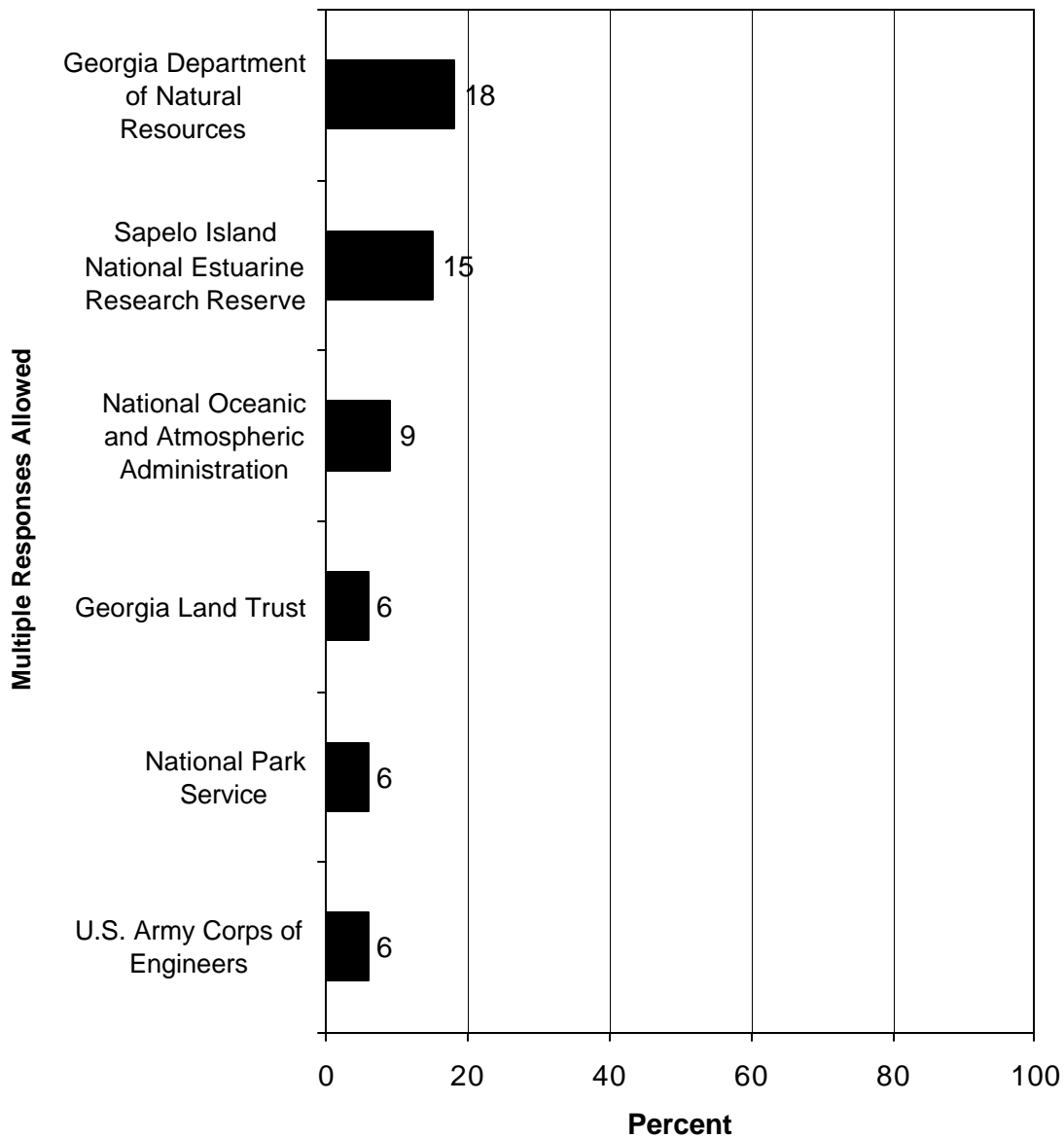
Does your agency/organization partner with other agencies/organizations to provide coastal resource training or information? (Market Inventory)



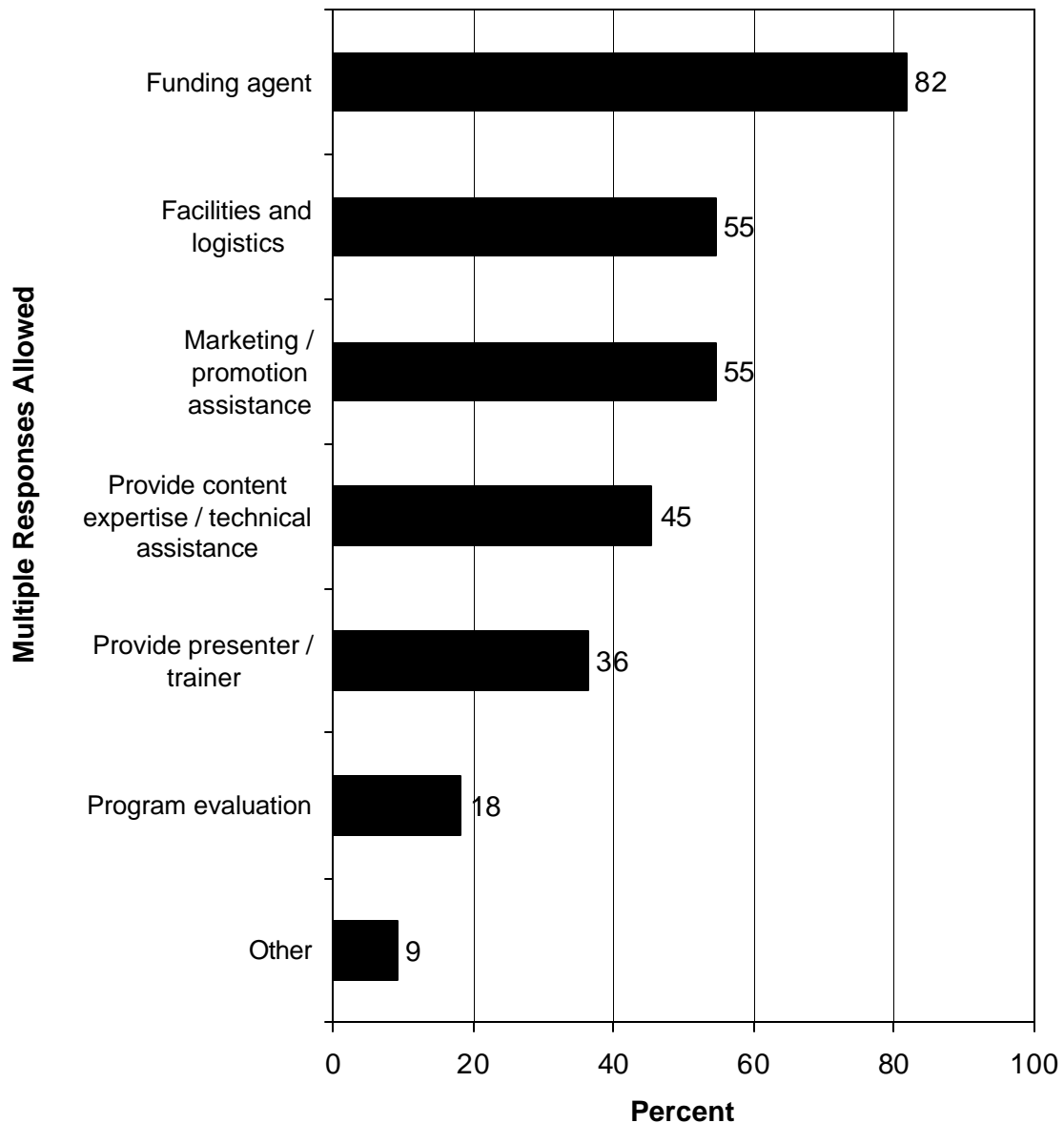
How interested are you in having your agency/organization partner with other agencies/organizations to provide coastal resource training or information? (Market Inventory)



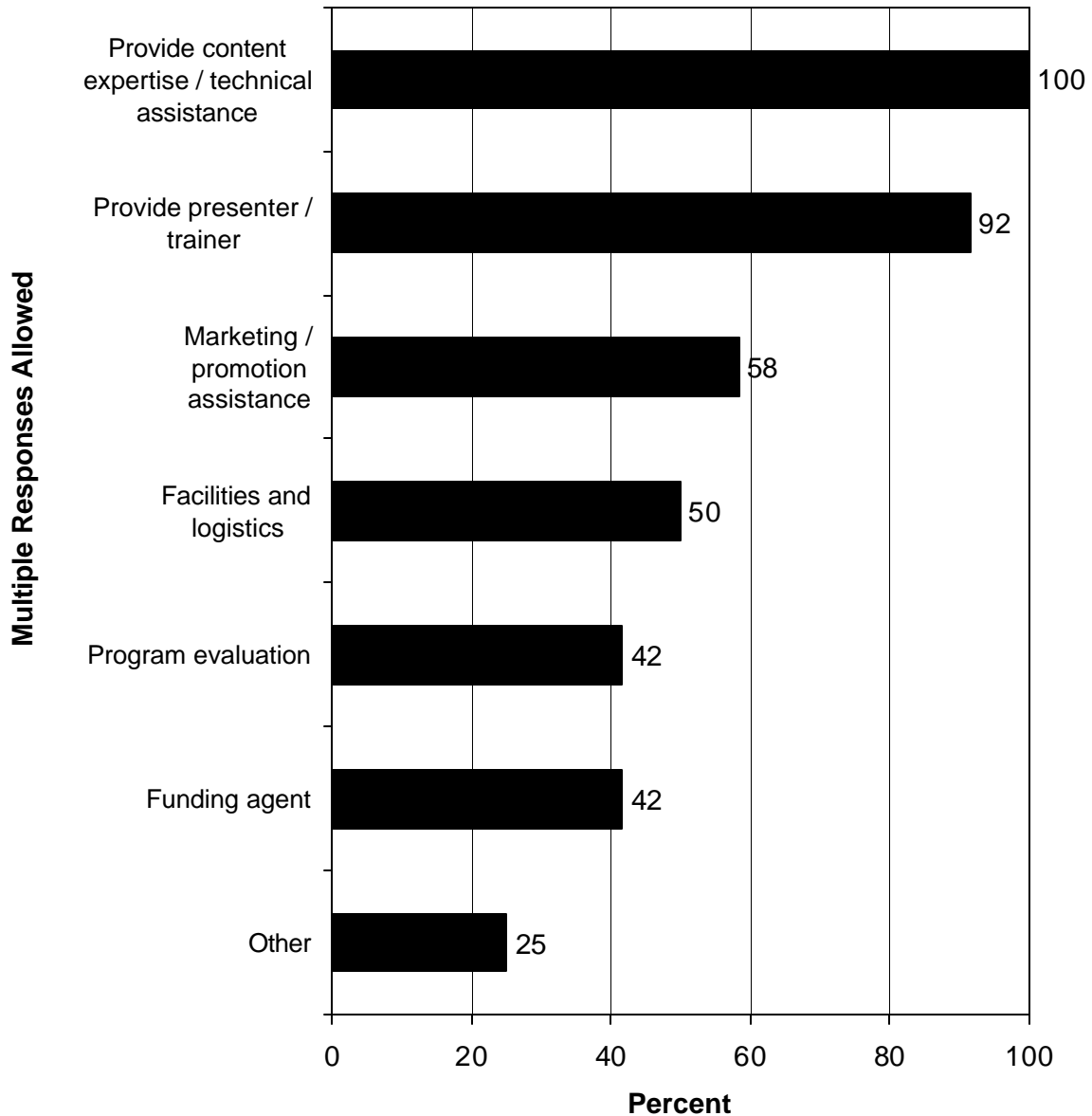
Agency/organization with which respondent's agency/organization partners with most. (Graph shows those given by more than 5% of respondents; there are an additional 33 partnering agencies/organizations named by less than 5%.) (Market Inventory)



**Which of the following does your agency/organization need for an effective partnership with other agencies/organizations to provide coastal resource training or information?
(Market Inventory)**



What do you feel your agency/organization could bring to a partnership with other agencies/organizations to provide coastal resource training or information? (Market Inventory)



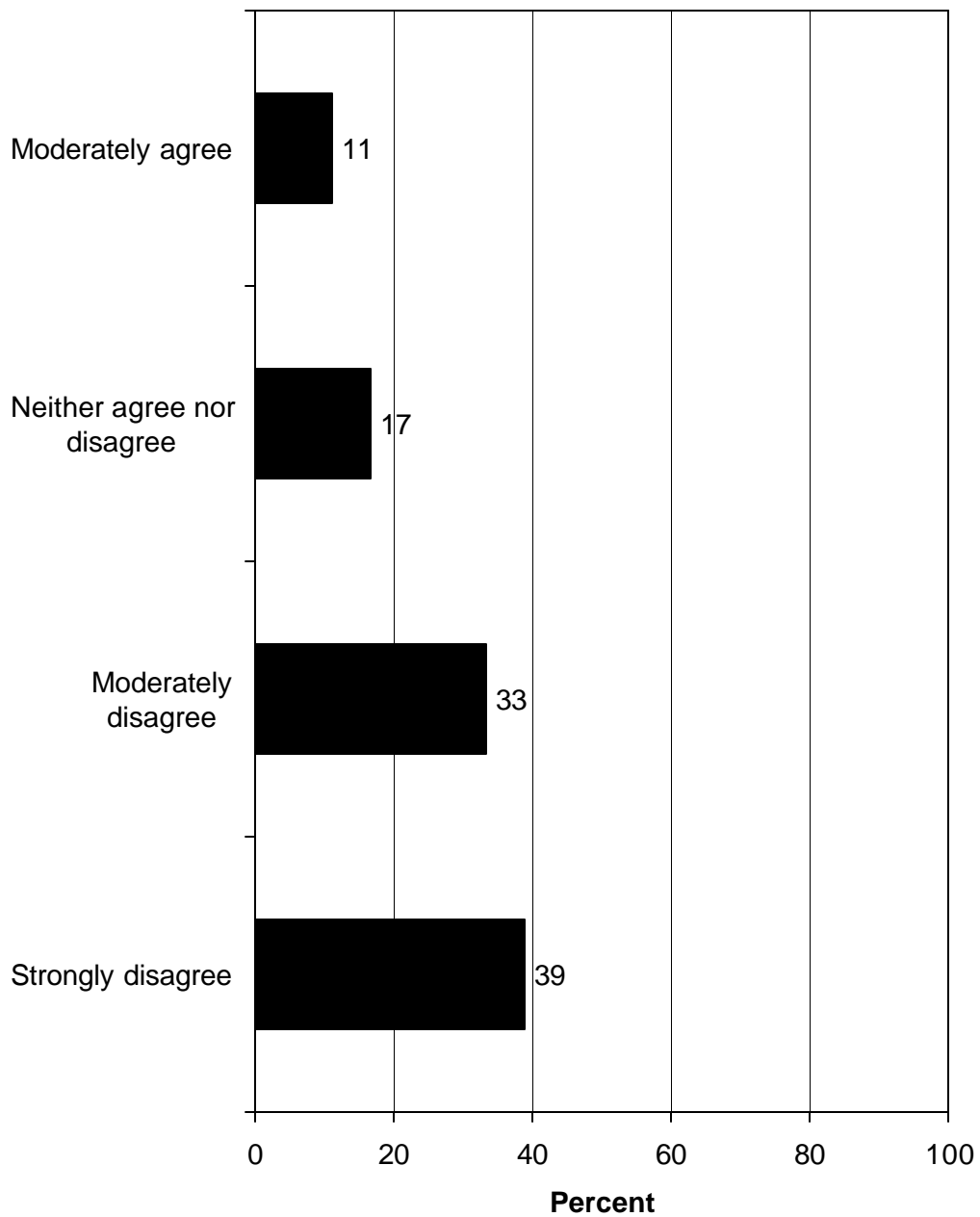
KNOWLEDGE OF AND OPINIONS ON COASTAL RESOURCE ISSUES

- As in the needs assessment survey, the market inventory survey asked respondents several general questions regarding coastal and natural resource issues.
- The large majority of respondents from organizations providing coastal resource training (72%) disagree that buffers encroach on the property rights of riparian landowners, with 39% *strongly* disagreeing. Only 11% agree that they do.
 - Note that in the needs assessment survey, 42% of decision-makers agree that buffers encroach on the property rights of riparian landowners.
- Like decision-makers, coastal resource organization respondents were asked to choose from a list of six options (“more jobs,” “increased congestion,” “more shopping and entertainment opportunities,” “environmental problems,” “the need to manage growth to protect quality of life,” and “increased tax burdens on existing residents”) describing what first comes to mind when they think about growth in and around their communities. Half of coastal resource organization respondents (50%) said that they first thought of “the need to manage growth to protect quality of life,” while a third of them (33%) thought of “environmental problems.”
 - Note that in the needs assessment survey, while 45% of decision-makers think of “the need to manage growth to protect quality of life,” the next two most common answers were “increased congestion” (24%) and “more jobs” (21%).
- The large majority of coastal resource organization respondents (73%) feel that the overall quality of the environment in their community has gotten worse in the past five years; a fifth of them (20%) feel it has stayed the same.
 - Note that in the needs assessment survey, 55% of decision-makers say that the overall quality of the environment in their community has stayed the same, while just over a fifth of them (21%) say it has gotten worse.
- The majority of coastal resource organization respondents (53%) disagree that their respective communities have adequate access to waterways, with 13% *strongly* disagreeing.

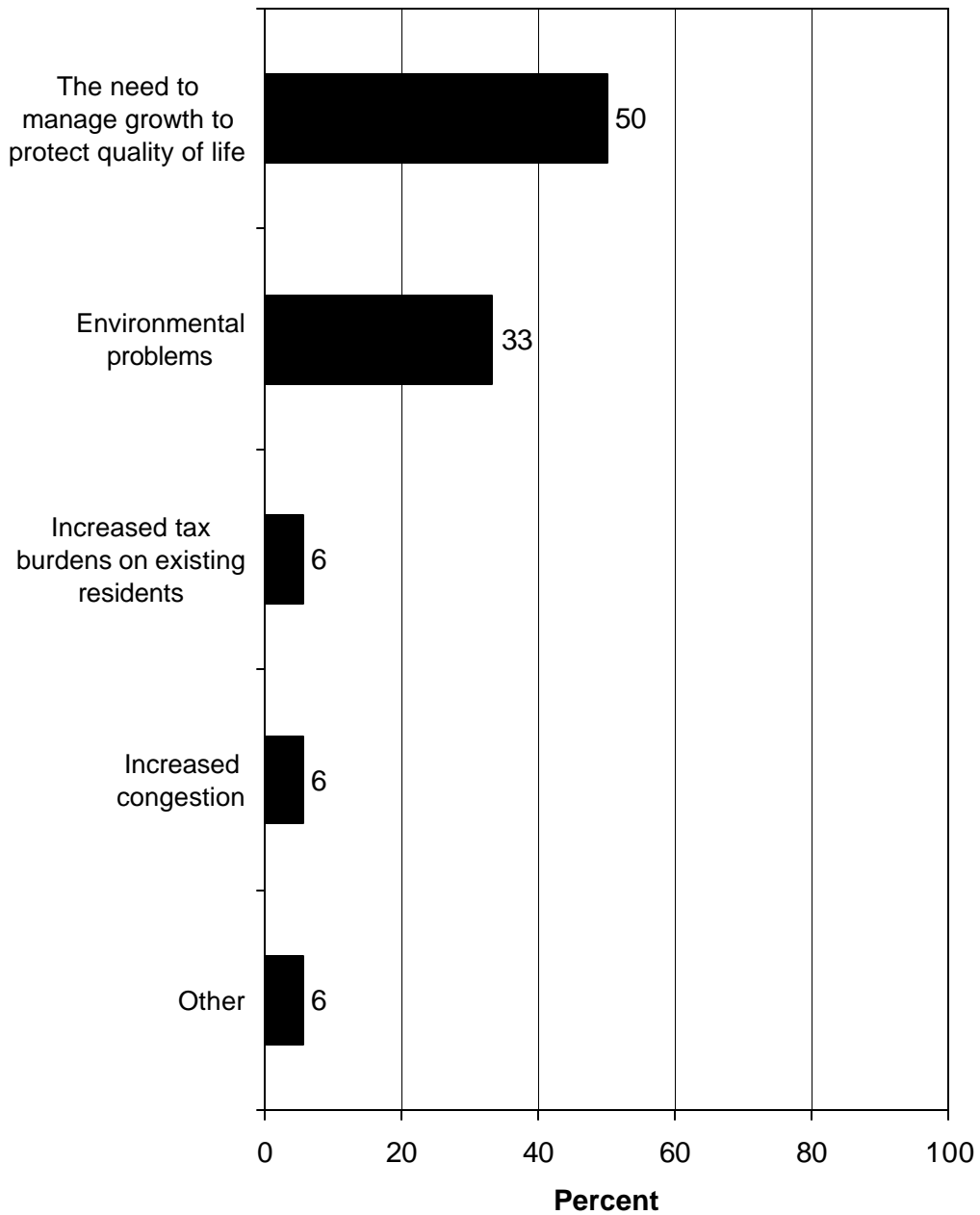
However, 26% of them agree that there is adequate access to waterways in their communities (13% *strongly* agree).

- Note that in the needs assessment survey, 69% of decision-makers agree that their respective communities have adequate access to waterways (24% of them *strongly* agree).

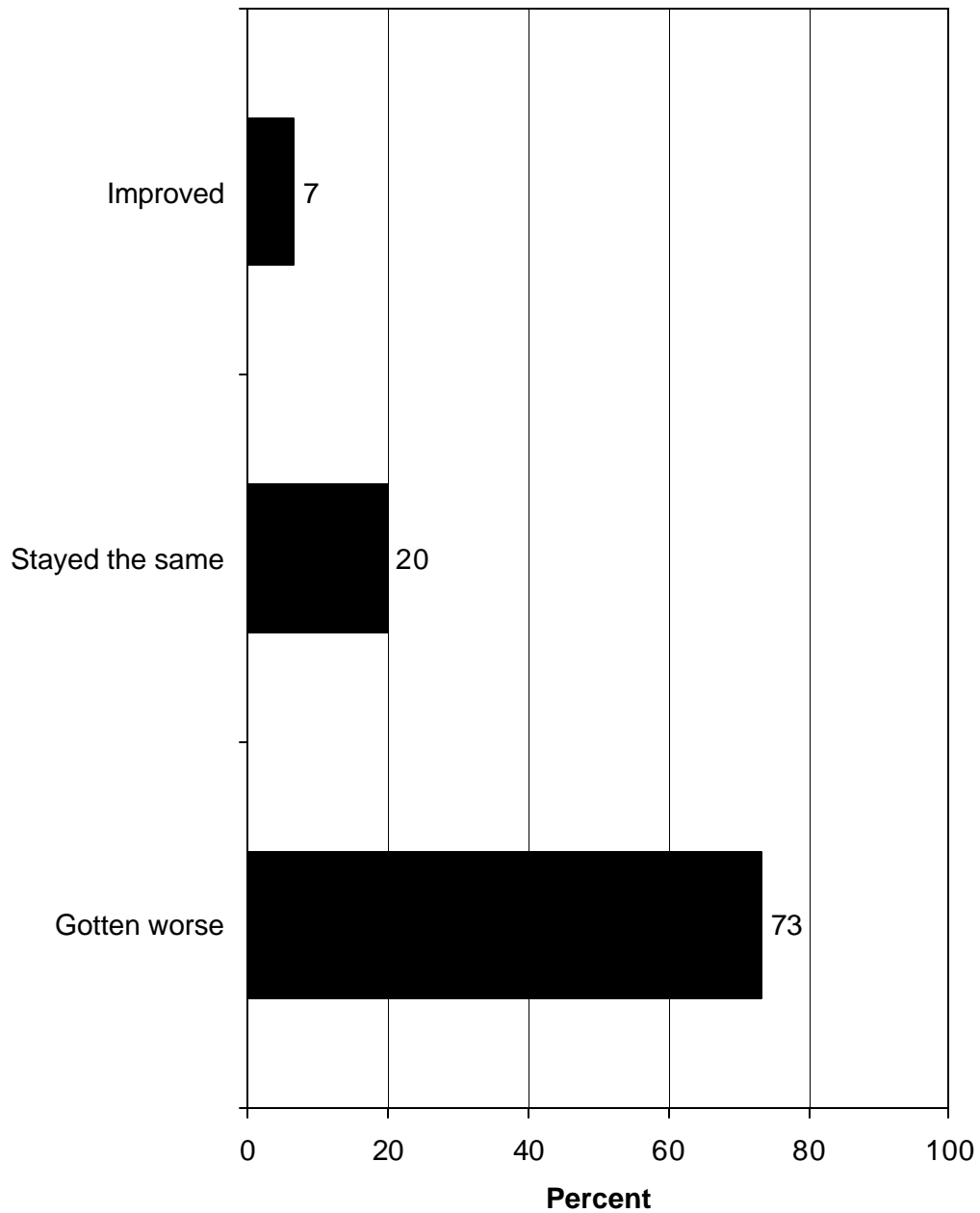
Do you agree or disagree that buffers encroach on the property rights of riparian landowners? (Market Inventory)



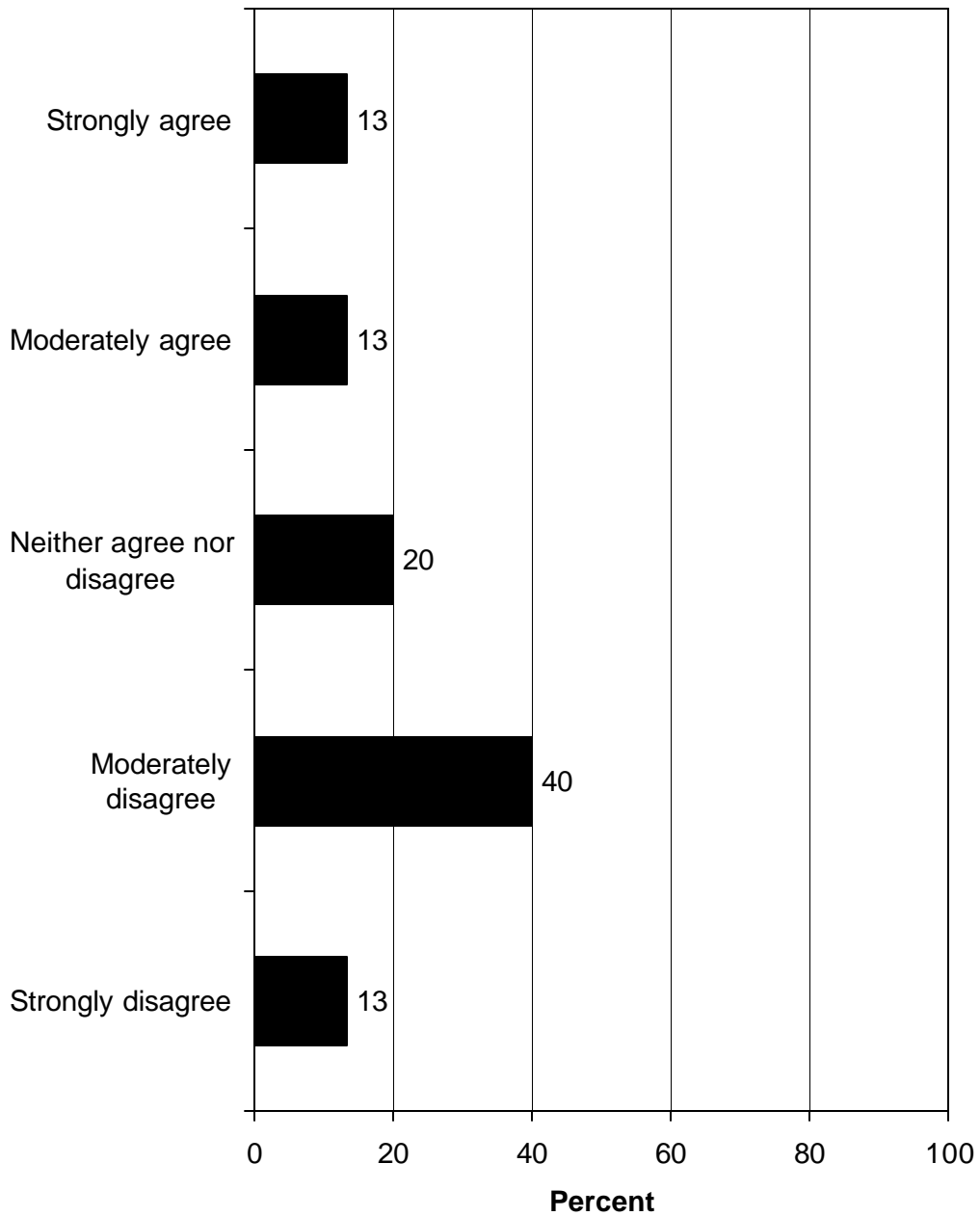
What first comes to mind when you think about growth in and around your community? (Market Inventory)



**In the past 5 years, would you say the overall quality of the environment in your community has improved, stayed the same, or gotten worse?
(Market Inventory)**



Do you agree or disagree that your community has adequate access to waterways? (Market Inventory)

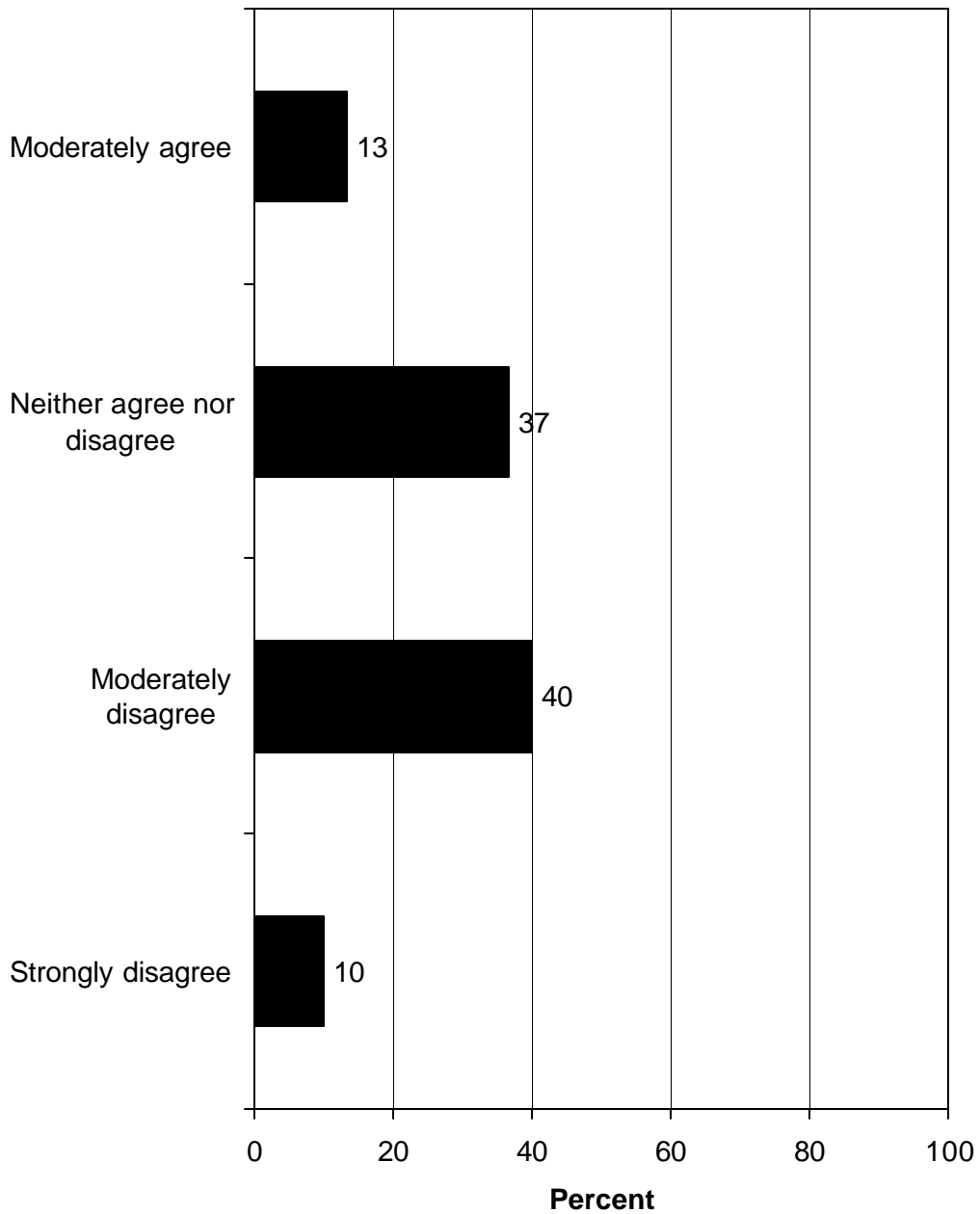


OPINIONS ON PERCEIVED COASTAL RESOURCE TRAINING NEEDS

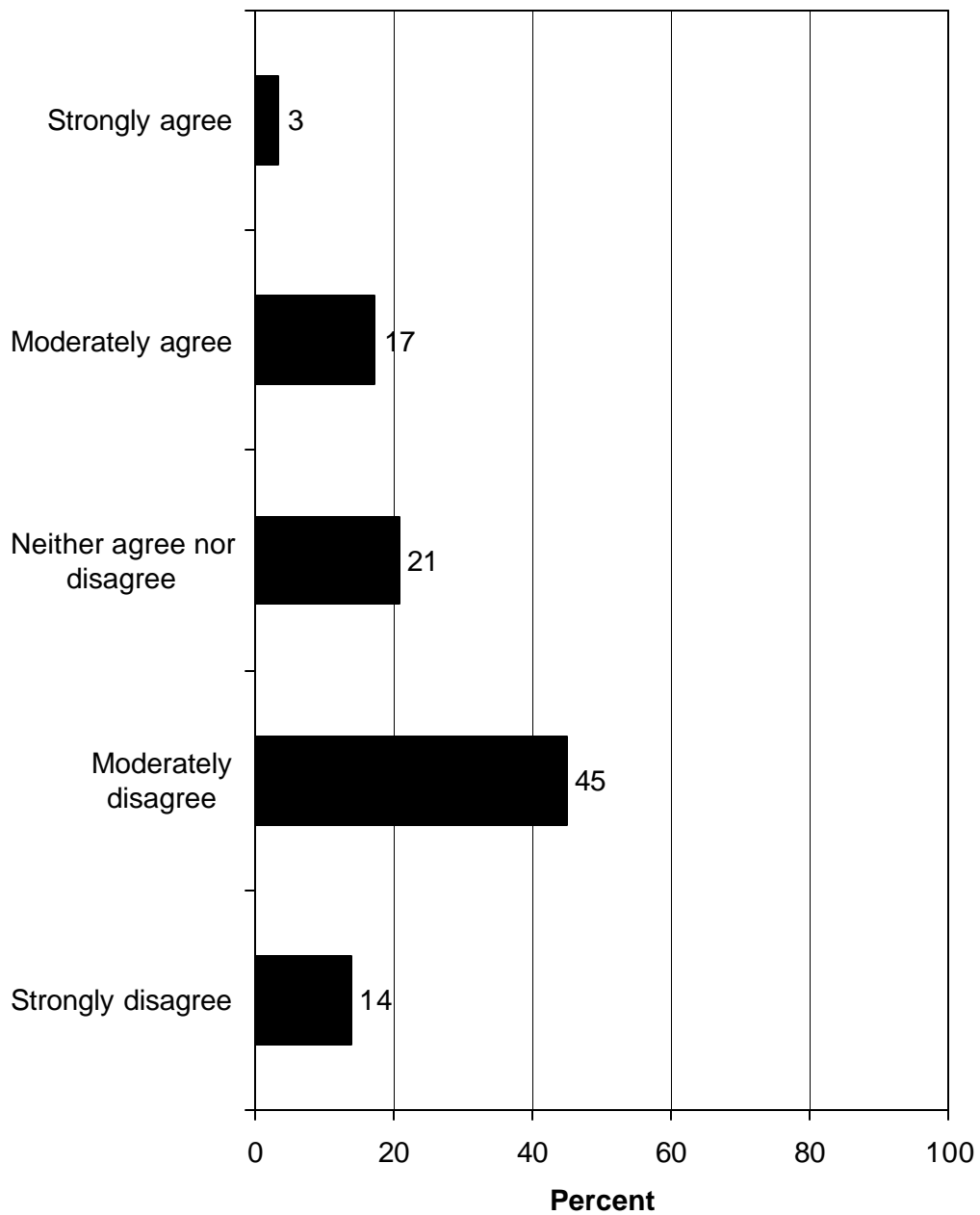
- The survey asked coastal resource organization respondents whether they agree or disagree that there is enough coastal resource training and information with regard to their organization and its intended audiences. Half of respondents (50%) disagree that there is, with 10% *strongly* disagreeing.
 - Just 13% agree that there is enough coastal resource training and information with regard to their organization, while over a third of respondents (37%) neither agree nor disagree.

- The market inventory survey asked coastal resource organization respondents whether they agree or disagree that there are enough coastal resource training and information providers that offer training and information for coastal decision-makers. The majority of respondents (59%) disagree that there are, with 14% *strongly* disagreeing.
 - A fifth of respondents (20%) agree that there are enough coastal resource providers offering training and information, while just over a fifth of respondents (21%) neither agree nor disagree.

Overall, do you agree or disagree that there is enough coastal resource training or information with regard to your agency/organization and its intended audience(s)? (Market Inventory)



Overall, do you agree or disagree that there are enough coastal resource training or information providers that offer training or information for coastal decision-makers? (Market Inventory)

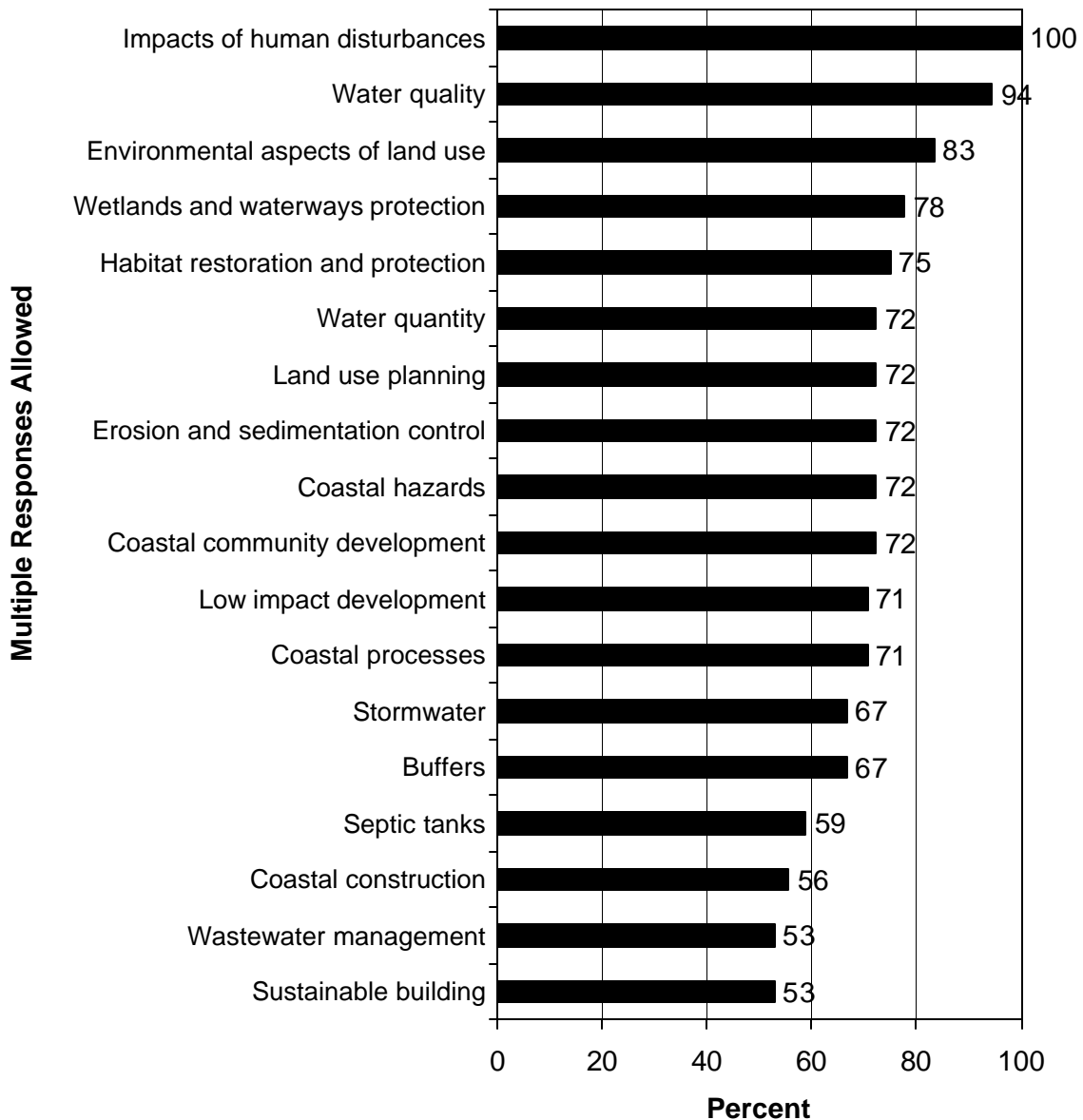


Topic Areas to Address in Coastal Resource Training

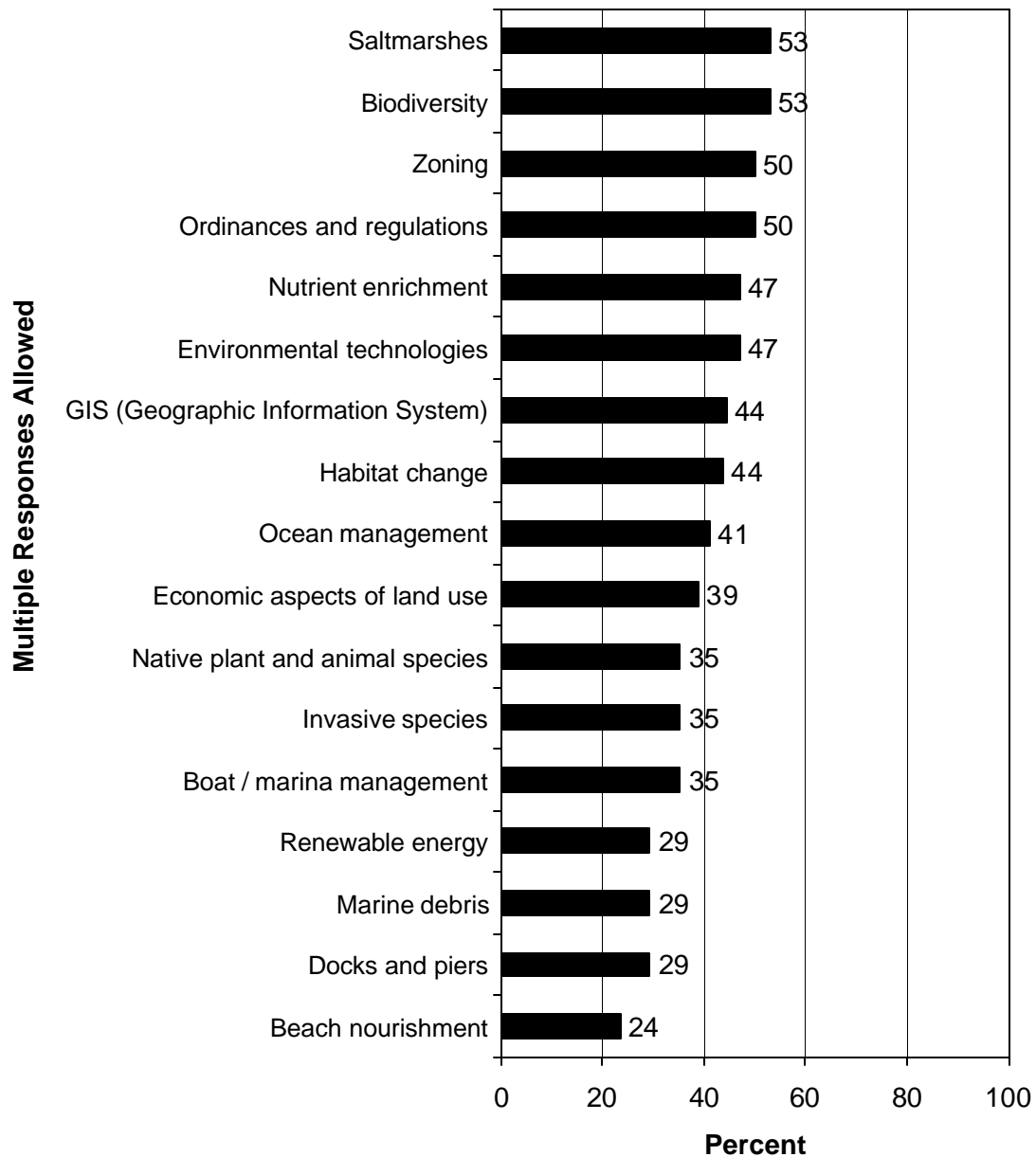
- Coastal resource organization respondents were asked about the coastal resource information topics and skills training areas for which they feel there is a high need for additional coastal resource training and information. All respondents (100%) named impacts of human disturbances as a high-need area for additional training and information, while 94% of respondents said that water quality is a high-need area.
 - At least three-quarters of respondents named the following as high-need areas for additional coastal resource training and information: environmental aspects of land use (83%), wetlands and waterways protection (78%), and habitat restoration and protection (75%).

- Low-impact development (55%), erosion and sedimentation control (45%), and economic aspects of land use (45%) topped the list of coastal resource information topics and training areas that respondents would like to offer in their organizations' programs but which they do not currently offer.
 - More than a third of respondents would like their organizations to offer training programs on stormwater (36%), impacts of human disturbances (36%), and buffers (36%).

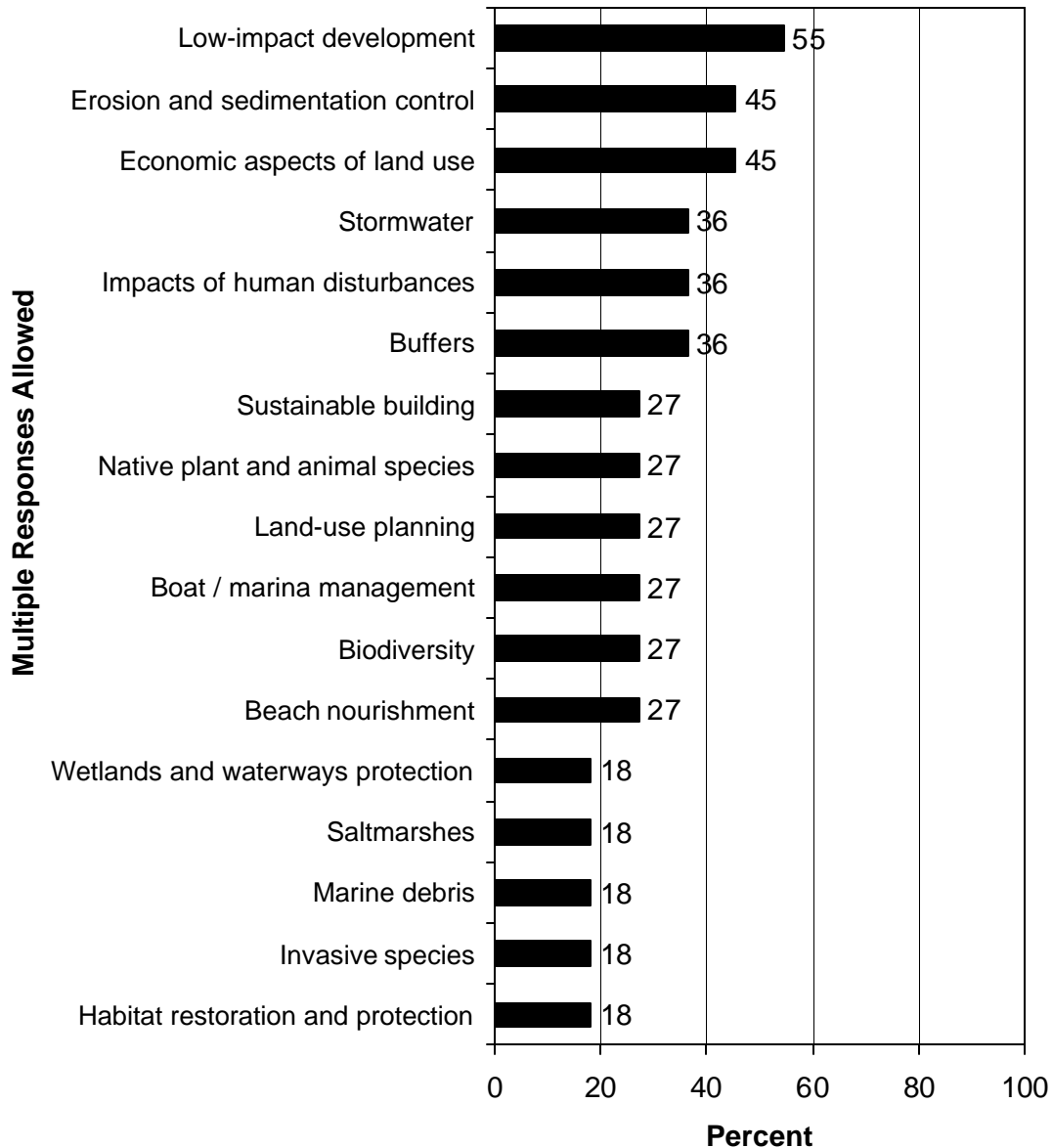
Percent who indicated that there is a high need for additional coastal resource training or information for the following coastal resource information topics/skills training areas. (Part 1.) (Market Inventory)



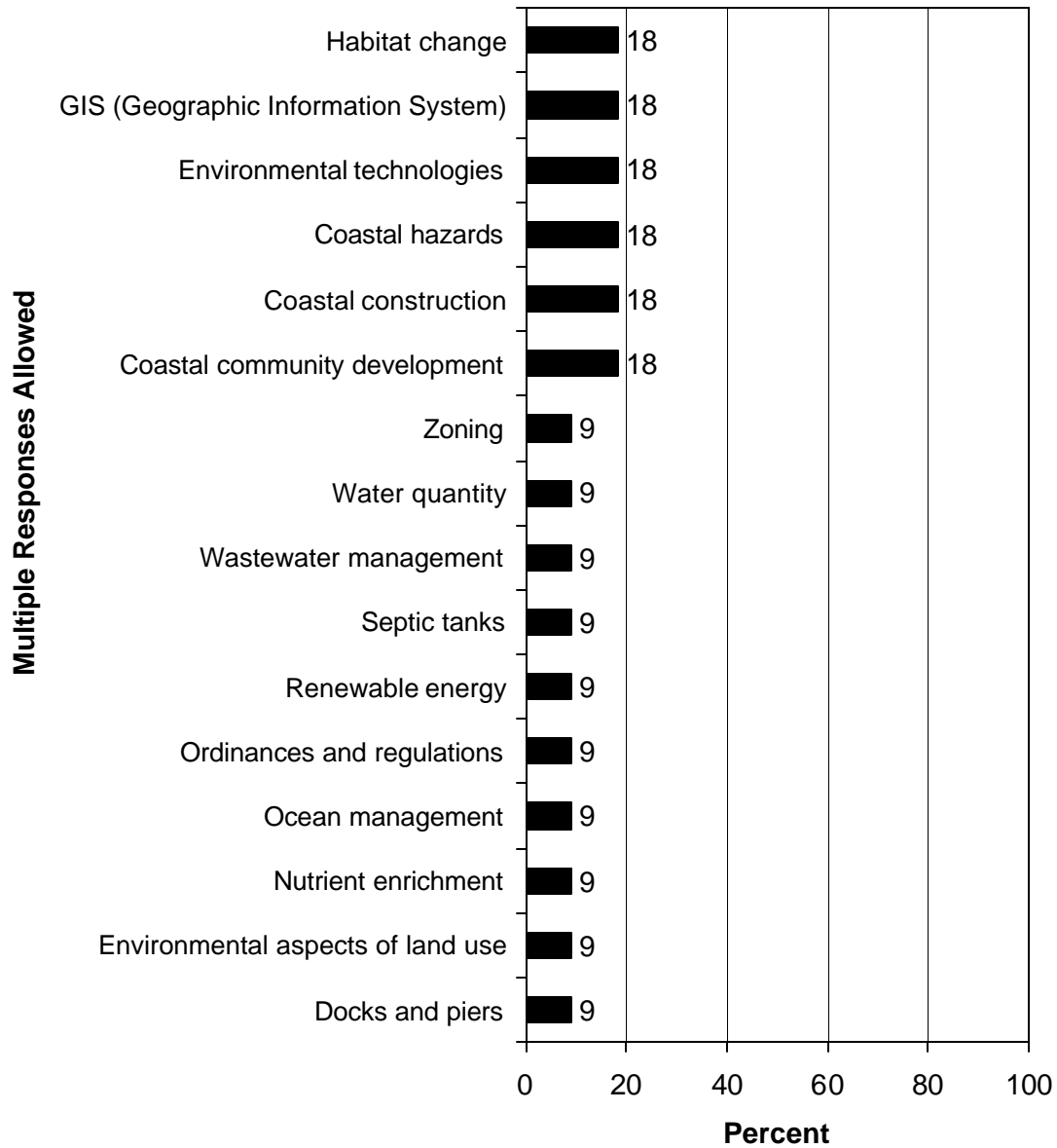
Percent who indicated that there is a high need for additional coastal resource training or information for the following coastal resource information topics/skills training areas. (Part 2.) (Market Inventory)



If any, what coastal resource information topics/skills training does your agency/organization not currently utilize that you would like to offer in your coastal resource training program? (Part 1.) (Market Inventory)



If any, what coastal resource information topics/skills training does your agency/organization not currently utilize that you would like to offer in your coastal resource training program? (Part 2.) (Market Inventory)

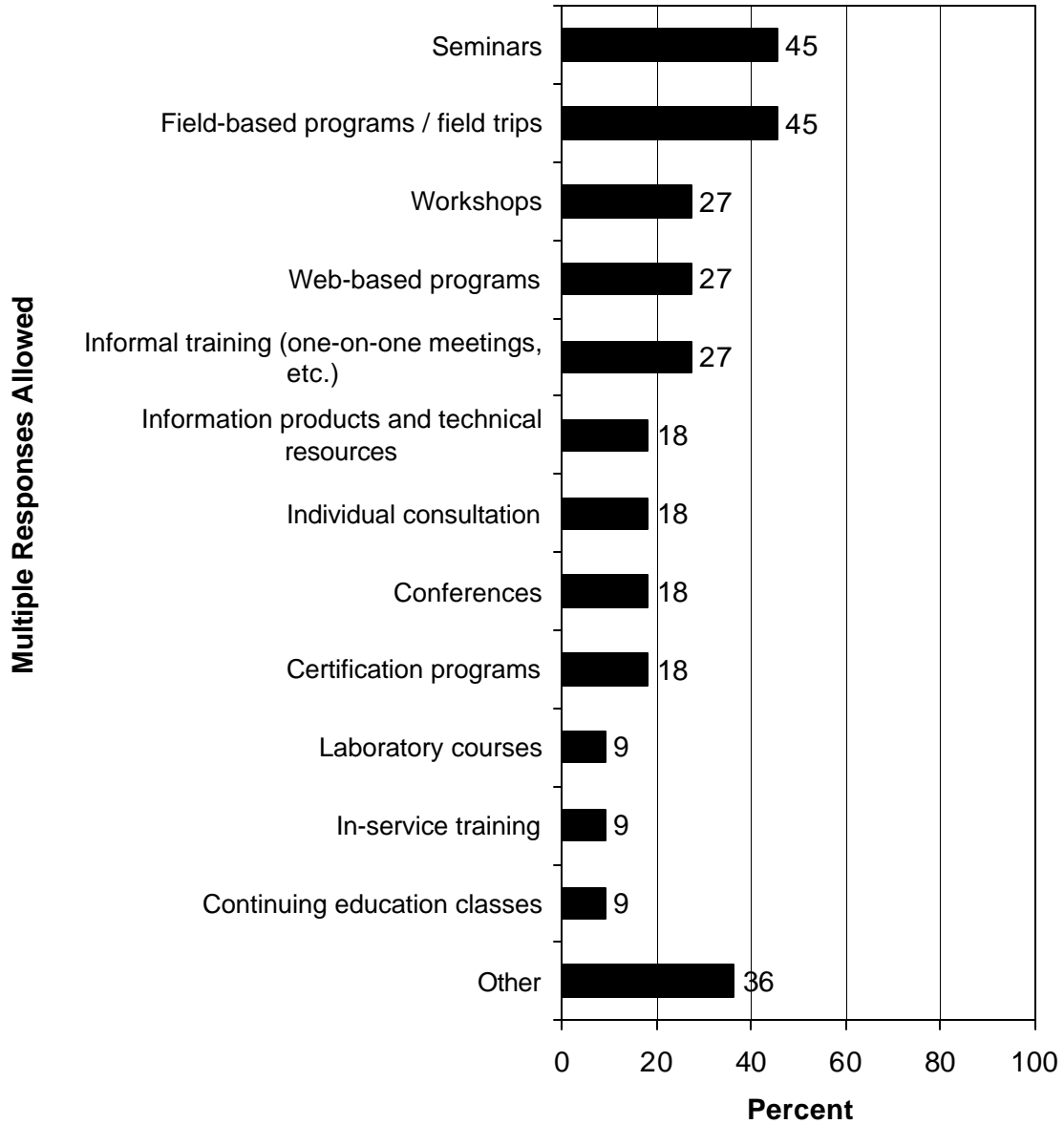


Delivery Methods to Utilize for Coastal Resource Training

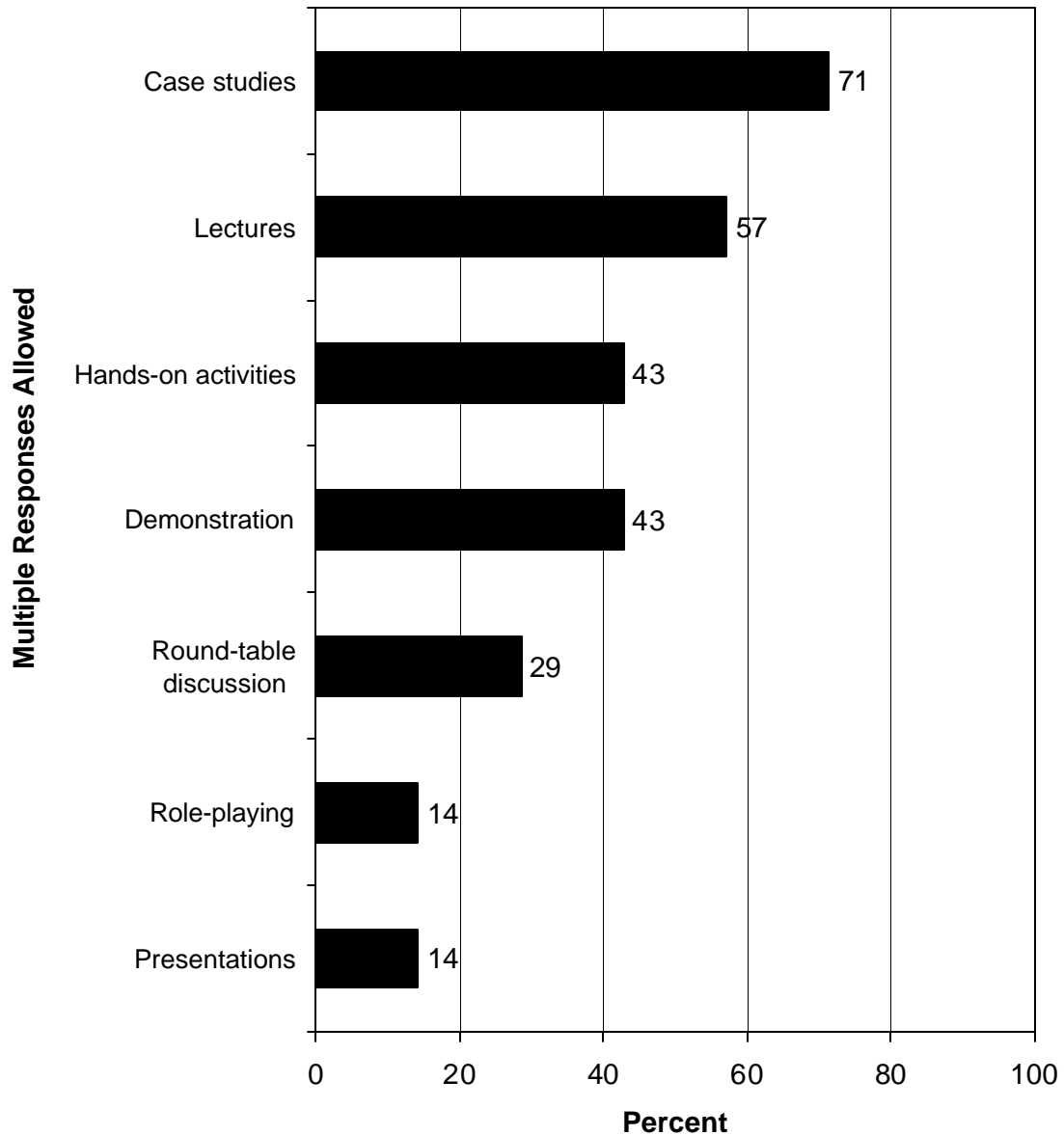
- The market inventory survey asked respondents about the coastal resource delivery methods not currently utilized by their organizations but which they would like to offer in their coastal resource training programs. Seminars (45%) and field-based programs/field trips (45%) were the most common answers.
 - More than a quarter of respondents would like to offer workshops (27%) and Web-based programs (27%) in their coastal training programs.

- Regarding other desired delivery methods not currently utilized by coastal resource organizations, case studies (71%) and lectures (57%) had notable levels of preference among coastal resource organization respondents.

If any, what coastal resource training delivery methods does your agency/organization not currently utilize that you would like to offer in your coastal resource training program? (Market Inventory)



What are the other coastal resource training delivery methods not currently utilized by your agency/organization that you would like to offer in your coastal resource training program? (Market Inventory)

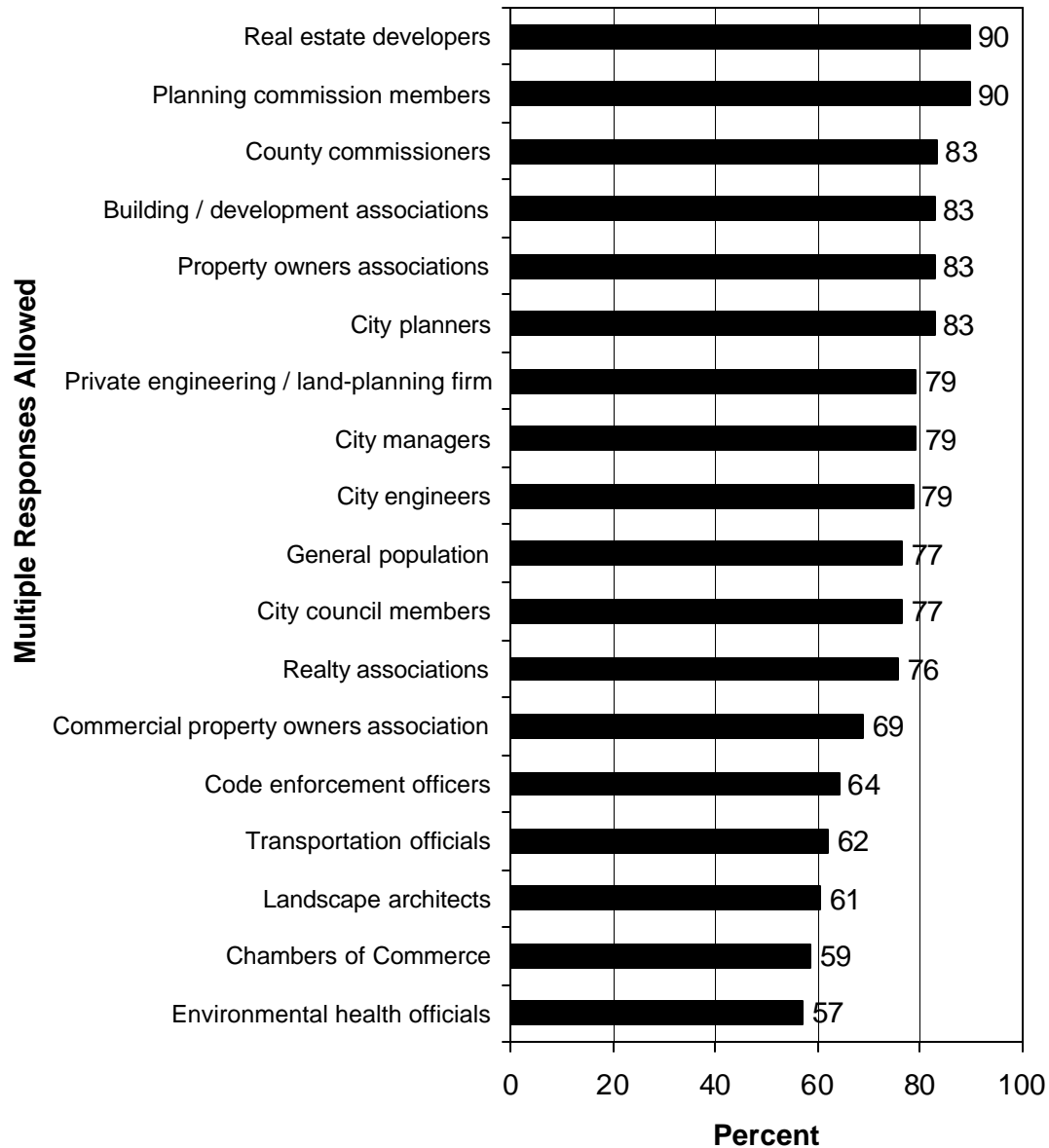


Groups to Target for Coastal Resource Training

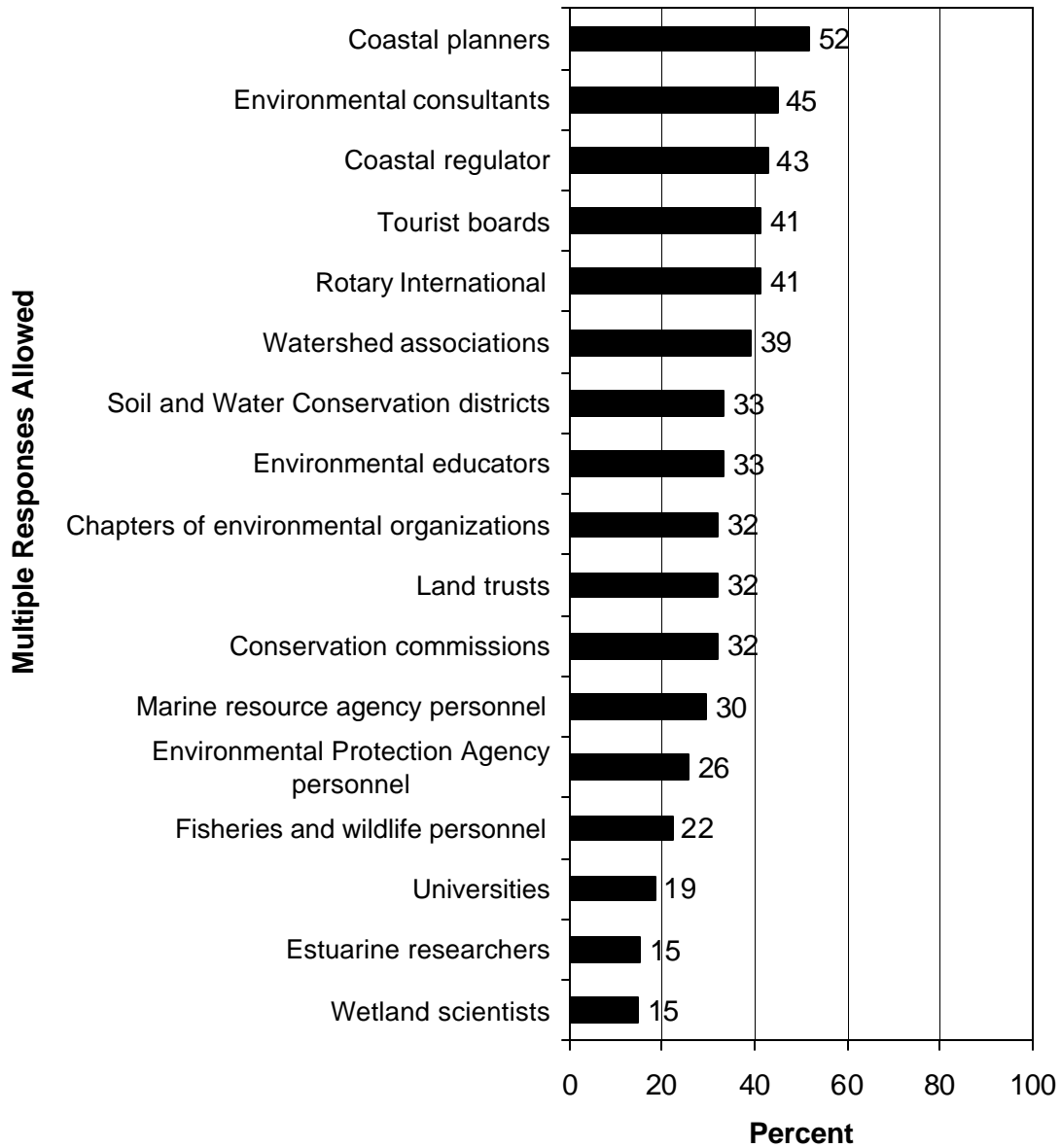
- Coastal resource organization respondents were asked about the groups for which they feel there is a high need for additional coastal resource training and information. Real estate developers (90%) and planning commission members (90%) topped the list, followed by county commissioners (83%), building/development associations (83%), property owners associations (83%), and city planners (83%).
 - More than three-quarters of respondents indicated a need for six different groups to receive additional coastal training and information: private engineering/land-planning firms (79%), city managers (79%), city engineers (79%), members of the general population (77%), city council members (77%), and realty associations (76%).

- The survey asked coastal resource organization respondents about the groups they feel their organizations *should* target for coastal resource training and information. Members of the general population was the most common answer (65%), followed by real estate developers (53%), and property owners associations (53%).

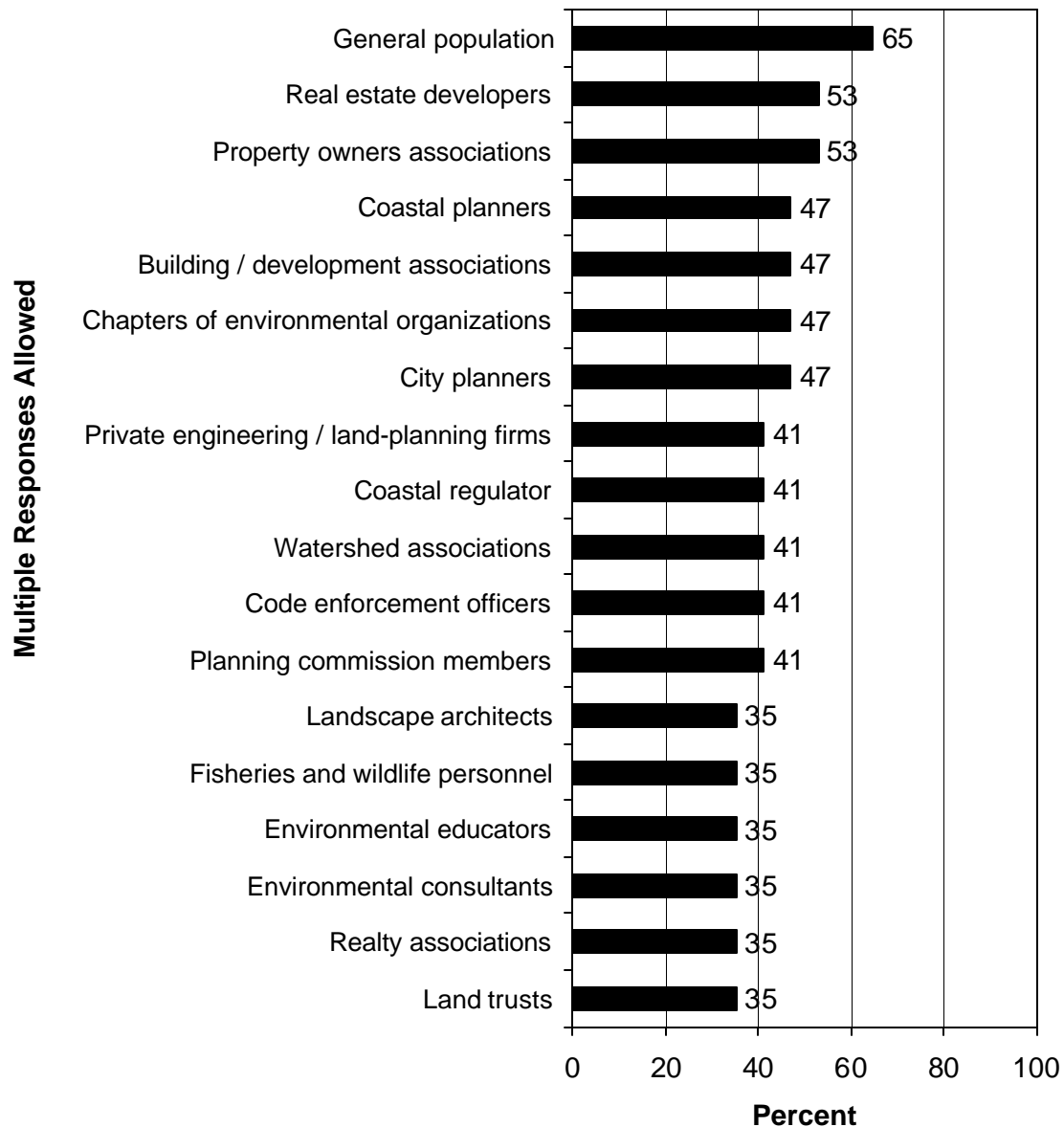
Percent who indicated that they think the following have a high need for additional coastal resource training or information. (Part 1.) (Market Inventory)



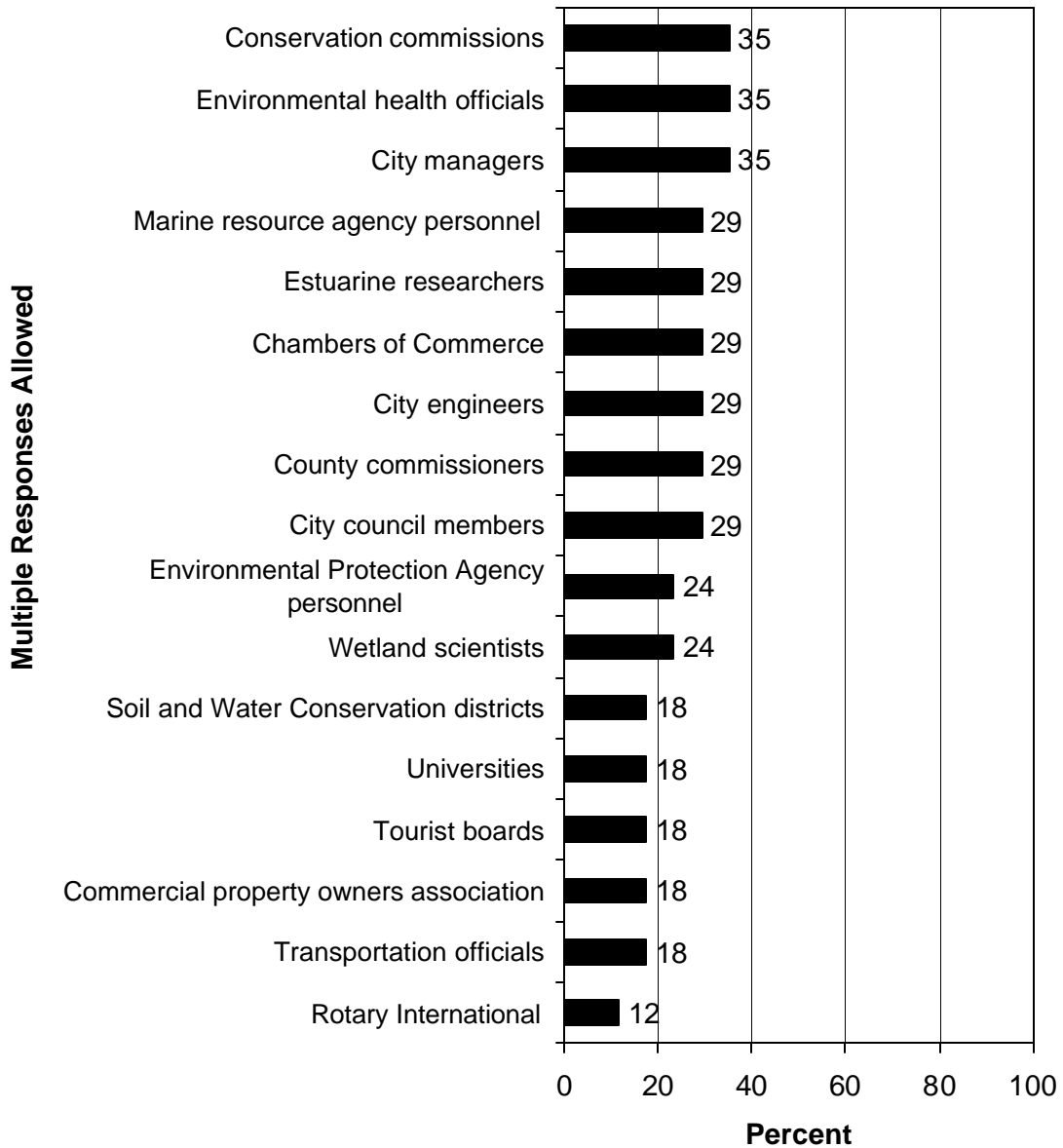
Percent who indicated that they think the following have a high need for additional coastal resource training or information. (Part 2.) (Market Inventory)



**Which of the following groups do you feel your department/division or agency/organization should target for coastal resource training or information?
(Part 1.) (Market Inventory)**



**Which of the following groups do you feel your department/division or agency/organization should target for coastal resource training or information?
(Part 2.) (Market Inventory)**



COMPARISON OF NEEDS ASSESSMENT SURVEY AND MARKET INVENTORY

A comparison of the data gathered in the needs assessment and the data gathered in the market inventory suggests that the availability of certain training topics and formats/delivery methods may not meet the demand. Likewise, other topics and formats appear to be well-covered. In a similar vein, a comparison was made of perceptions of target groups that need training and the groups that are receiving training. This latter comparison suggests that certain groups may have unmet needs for coastal training. These findings are discussed below.

TRAINING TOPICS

- The researchers compared the demand and supply of training topics. Specifically, for each topic, the analysis examined the percentage of providers who offer coastal training on the topic versus the percentage of respondents who indicate having a high need for training on the topic (% providers offering topic minus % of decision-makers indicating a *high* need for training on the topic). In this analysis, a positive number indicates that the demand is met (or exceeded), while negative numbers indicate that there is demand that supply does *not* meet. In other words, a negative number suggests that more training on the topic would better serve decision-makers' needs.
 - Note that the question regarding needs was asked twice. The first question asked decision-makers to rate their own needs for coastal training, and a second question asked them to rate the needs of their agency/organization.
 - Also note that the raw "score" is of less importance here than is the relative position/ranking of each topic.

- This analysis suggests that the following topics have substantial unmet demand: water quantity, coastal construction, land use planning, wastewater management, zoning, sustainable building, docks and piers, boat/marina management, renewable energy, low impact development, and coastal community development.
 - In particular, water quantity and coastal construction have the most unmet demand.
 - The tables on the next page summarize the important results. All graphs appear at the end of this section of the report.

TOPICS FOR WHICH SUPPLY MEETS DEMAND

TOPICS FOR WHICH SUPPLY MEETS DEMAND—PERSONAL	TOPICS FOR WHICH SUPPLY MEETS DEMAND—AGENCY/ORGANIZATION
Invasive species	Nutrient enrichment
Water quality	Invasive species
Nutrient enrichment	Native plant and animal species
Saltmarshes	Coastal processes
Coastal processes	
Habitat change	
Native plant and animal species	
Environmental aspects of land use	
Biodiversity	

Topics were included based on observable groupings in the graphs that follow; the graphs for the question regarding personal training needs (each question has two graphs because of the large number of topics) shows that nine topics are markedly higher than the other topics, while the graphs for the question regarding agency/organization training needs show four topics are markedly higher than the other topics. Based on these observed groupings for both questions, only topics with a “score” of more than 5 percentage points (i.e., 10 to 25 percentage points in the first question; 6 to 11 percentage points in the second question) were included in the above table as having adequately supply.

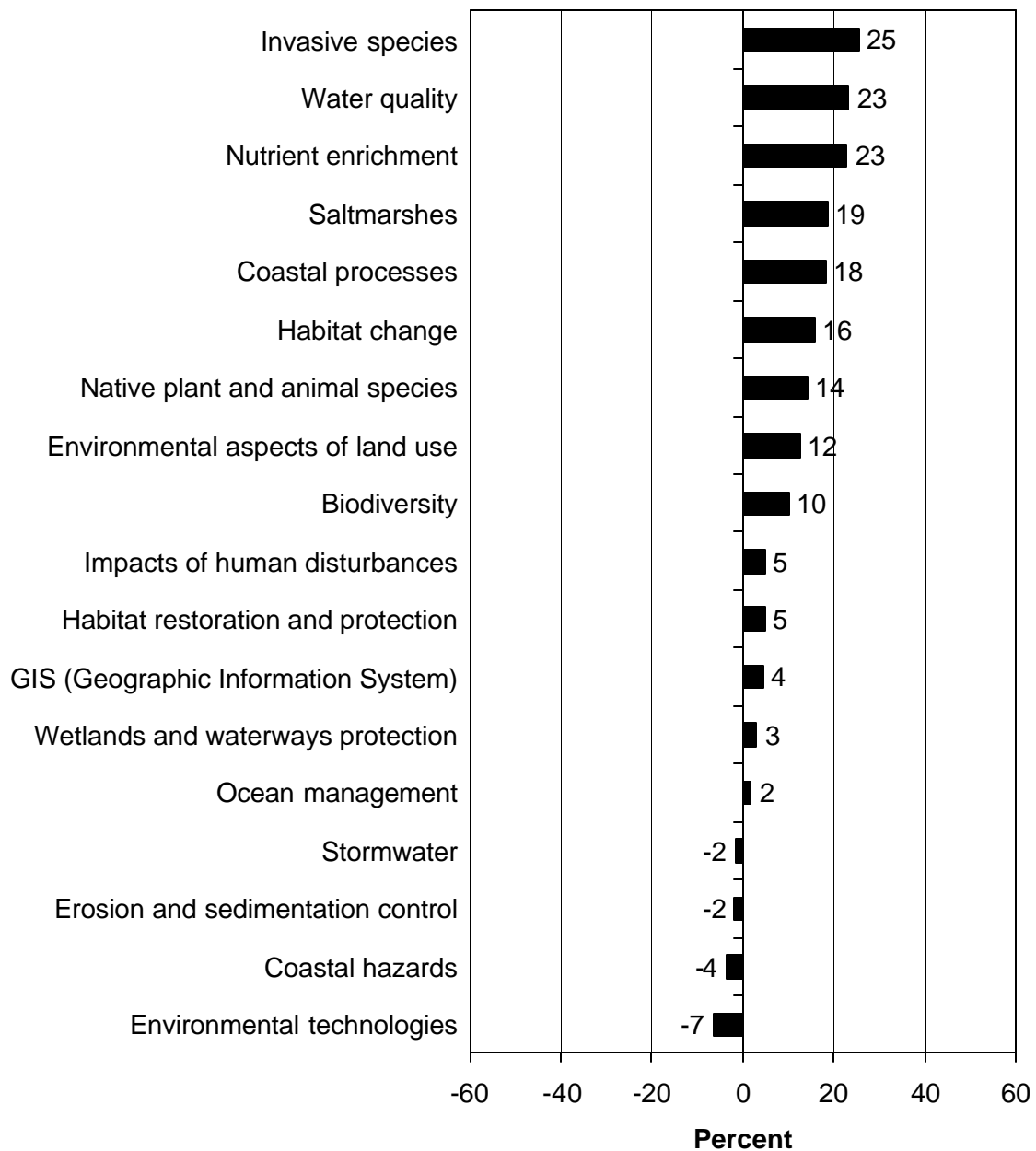
TOPICS FOR WHICH THERE IS UNMET DEMAND

TOPICS WITH UNMET DEMAND—PERSONAL	TOPICS WITH UNMET DEMAND—AGENCY/ORGANIZATION
Coastal construction	Water quantity
Water quantity	Coastal construction
Land use planning	Land use planning
Renewable energy	Wastewater management
Zoning	Zoning
Sustainable building	Sustainable building
Coastal community development	Docks and piers
	Boat/marina management
	Renewable energy
	Low impact development
	Coastal community development

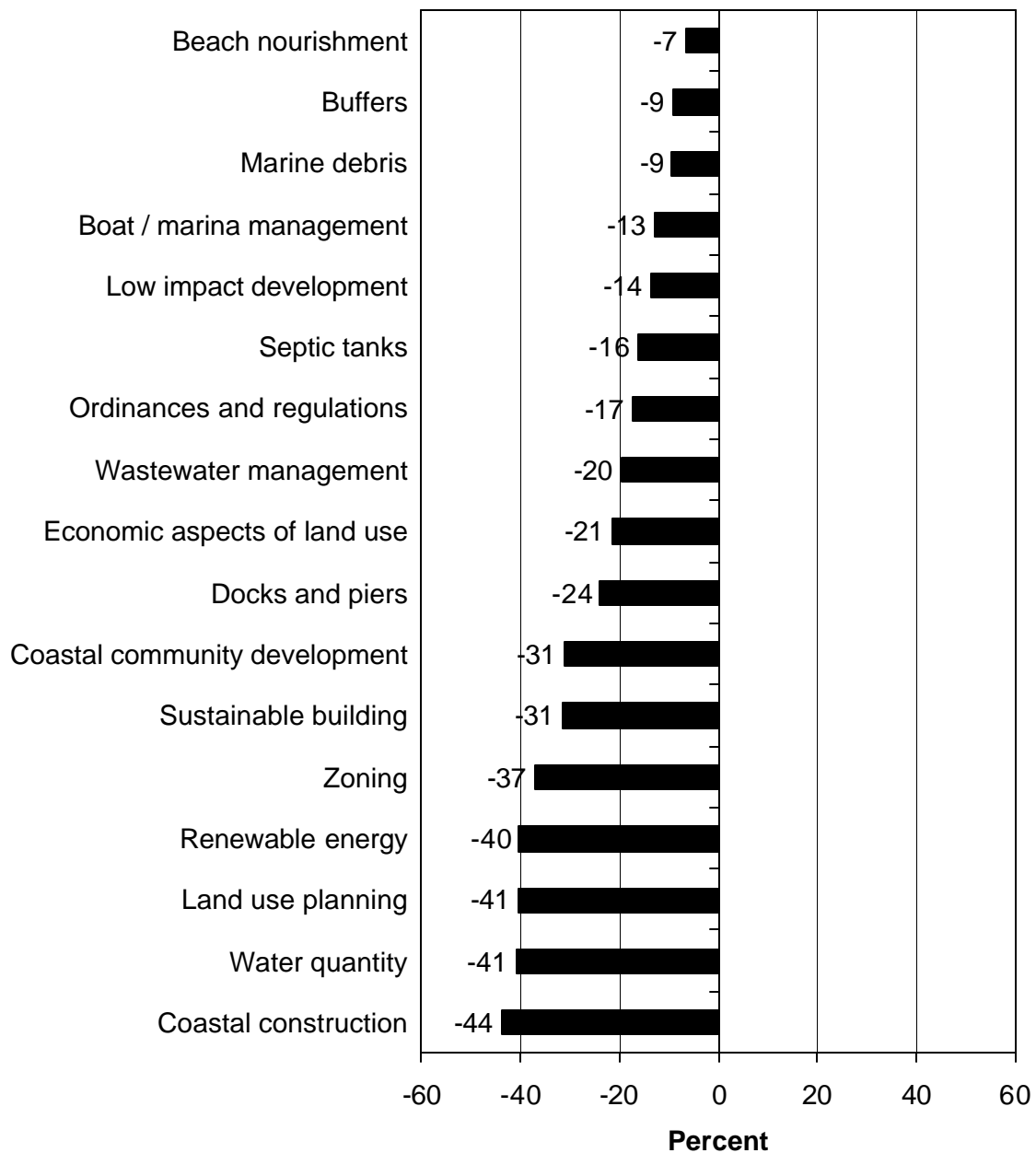
Topics were included based on observable groupings in the graphs that follow; the graphs for the question regarding personal training needs (each question has two graphs because of the large number of topics) shows that seven topics are markedly lower than the other topics, while the graphs for the question regarding agency/organization training needs show 11 topics are markedly lower than the other topics. Based on these observed groupings for both questions, only topics with a “score” of negative 30 percentage points or less (i.e., -30 to -44 percentage points in the first question; -30 to -55 percentage points in the second question) were included in the above table as having substantial unmet demand.

-
- Another comparison examined the coastal training topics currently offered by providers and the topics that the providers *think* that they should offer.
 - In this analysis, supply meets or exceeds demand for coastal training on the environmental aspects of land use, wetlands and waterways protection, GIS (Geographic Information Systems), ordinances and regulations, nutrient enrichment, saltmarshes, and invasive species, as well as 12 other topics.
 - In this analysis, there is much unmet demand for coastal training pertaining to low impact development, the economic aspects of land use, boat/marina management, sustainable building, coastal construction, beach nourishment, and erosion and sediment control.
 - The graphs for these results are at the end of this section of the report.

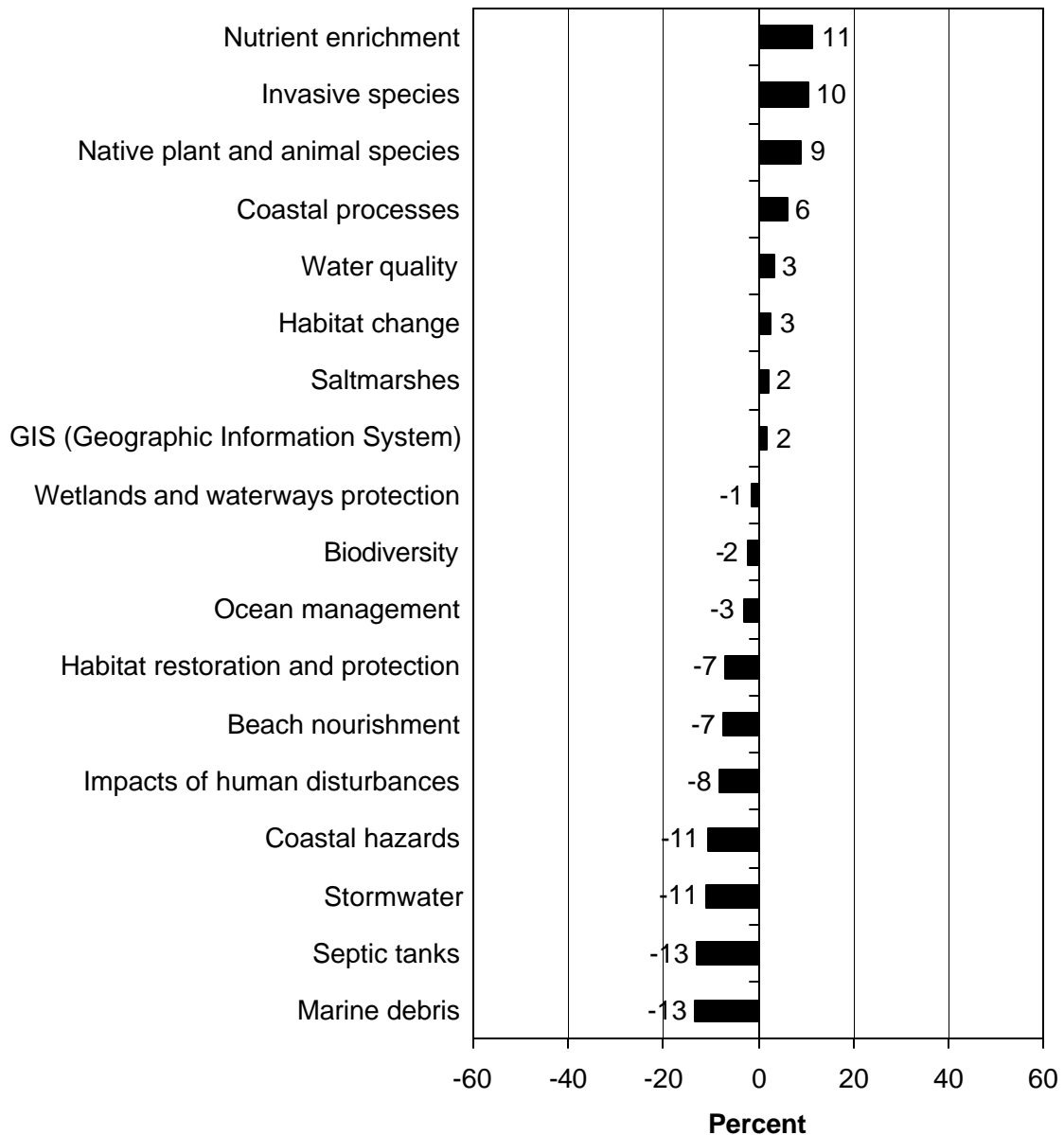
Supply of coastal resource information topics/skills training versus demand (percent of agencies/organizations that offer the training minus the percent of respondents that say they personally have a high need for training on the topic). (Part 1.)



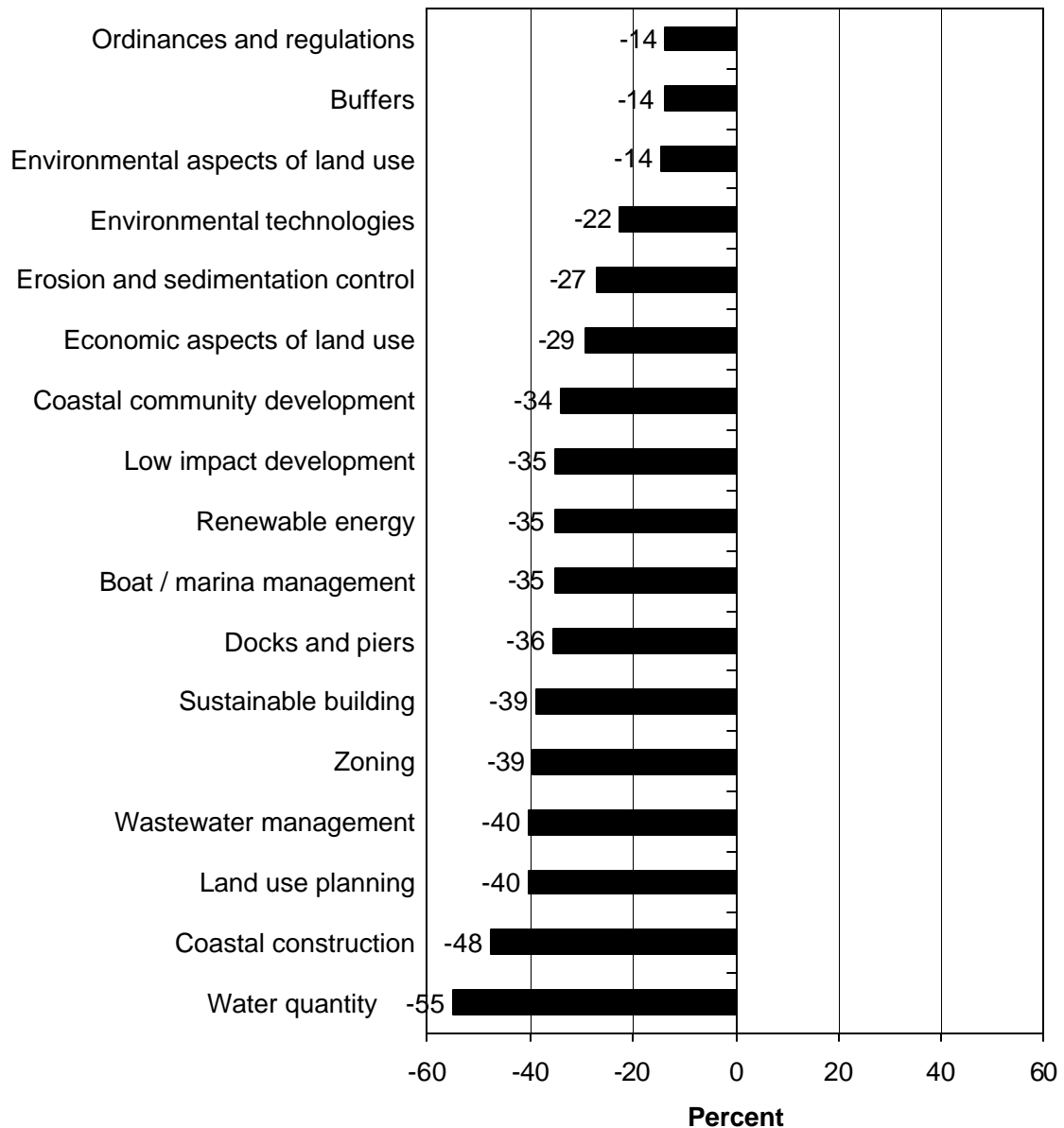
Supply of coastal resource information topics/skills training versus demand (percent of agencies/organizations that offer the training minus the percent of respondents that say they personally have a high need for training on the topic). (Part 2.)



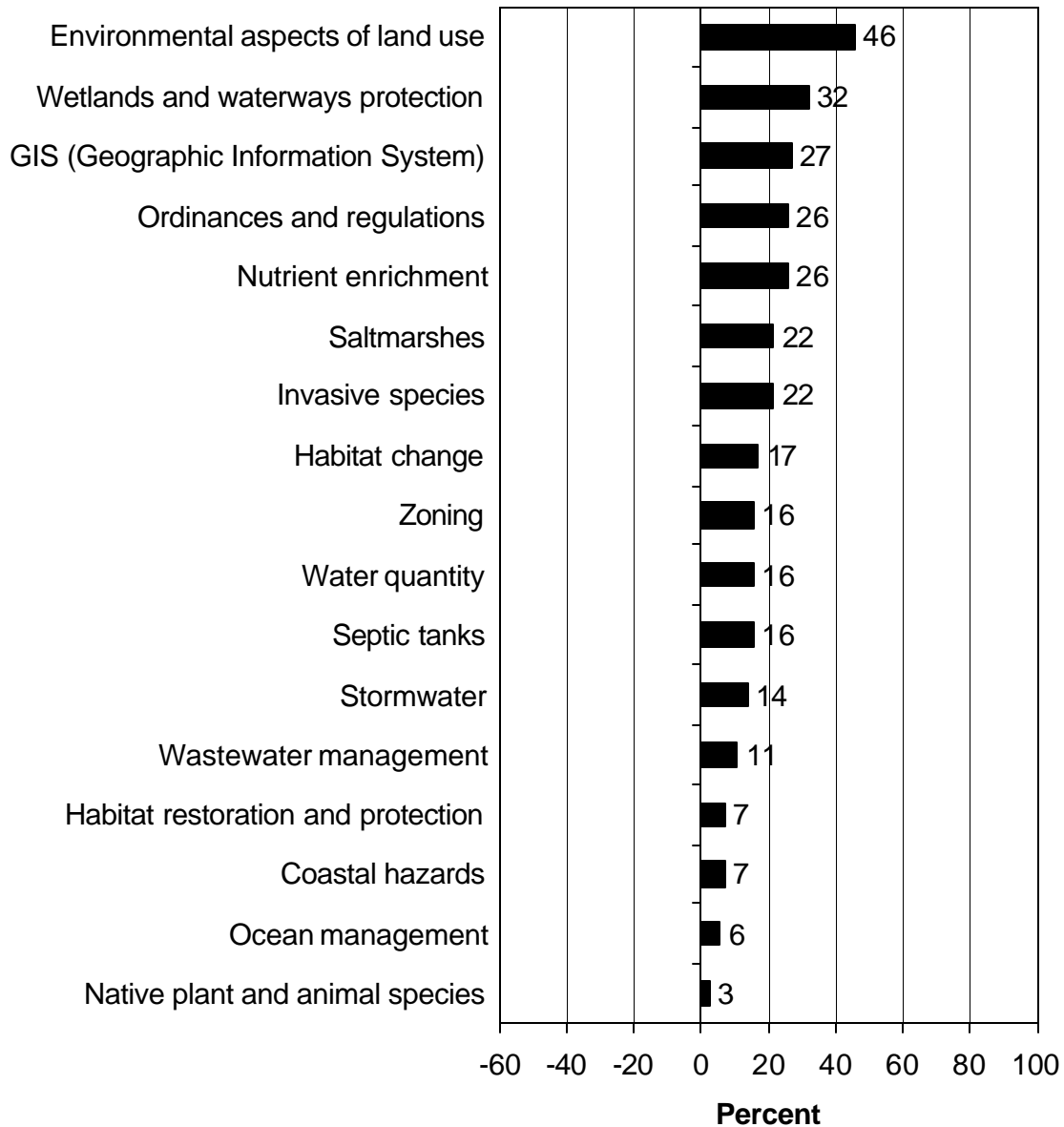
Supply of coastal resource information topics/skills training versus demand (percent of agencies/organizations that offer the training minus the percent of respondents that say their agency/organization has a high need for training on the topic). (Part 1.)



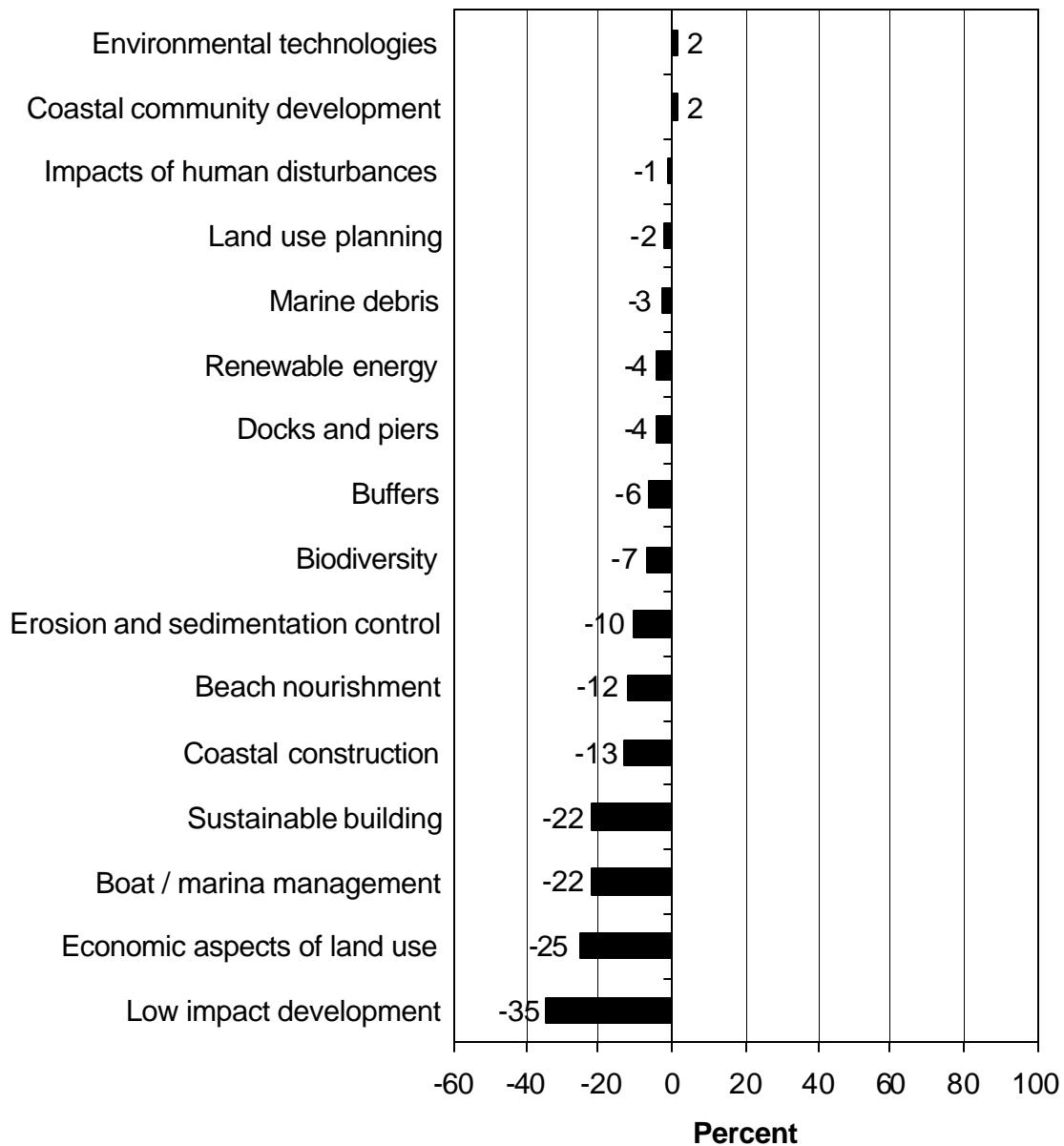
Supply of coastal resource information topics/skills training versus demand (percent of agencies/organizations that offer the training minus the percent of respondents that say their agency/organization has a high need for training on the topic). (Part 2.)



Coastal resource information topics/skills training agency/organization currently offers versus topics/training that respondent would like his/her agency/organization to offer (but which the agency/organization does not currently offer). (Part 1.)



Coastal resource information topics/skills training agency/organization currently offers versus topics/training that respondent would like his/her agency/organization to offer (but which the agency/organization does not currently offer). (Part 2.)



TRAINING FORMATS AND DELIVERY METHODS

- The researchers compared the demand and supply of training delivery methods. For each type of delivery method, the analysis examined the percentage of providers who offer that type of coastal training delivery method versus the percentage of respondents who indicate that the given delivery method is *very* effective (% providers offering the delivery method minus % of decision-makers indicating that the delivery method is *very* effective). As with the previous comparison, a positive number indicates that the demand for that delivery method is met (or exceeded), while negative numbers indicate that there is demand that supply does *not* meet for that delivery method.
 - The survey divided this set of questions into two parts (labeled Part A and Part B on the graphs), as was decided in consultation with the SINERR when the survey was being developed. Although both subsets of questions concern delivery methods, they are shown separately in the graphs to match the two, separate parts of the survey.
 - Note that the raw “score” is of less importance here than is the relative position/ranking of each topic.
- While the data in Part A suggest that the supply for workshops, seminars, conferences, and information products and technical resources meets demand, there is unmet demand for individual consultation, certification programs, and continuing education classes.
- In Part B, the data suggest that supply meets (or possibly exceeds) demand for presentations and lectures. On the other hand, there is much unmet demand for demonstrations, one-on-one instruction, and hands-on activities.
- Those delivery methods for which there is unmet demand are somewhat labor-intensive, in particular one-on-one instruction and individual consultations. The labor intensity of these methods may inhibit their use as a delivery method, although providers should consider the demand for these, when and where possible. Other methods for which there is much apparent unmet demand can be conducted more efficiently (measured by the number of

people that can be reached in a single session), and these include demonstrations, hands-on activities, certification programs, and continuing education classes.

- The results are summarized in the tables below, followed by graphs of the entire results.

DELIVERY METHODS FOR WHICH SUPPLY MEETS DEMAND

DELIVERY METHODS FOR WHICH SUPPLY MEETS DEMAND—PART A	DELIVERY METHODS FOR WHICH SUPPLY MEETS DEMAND—PART B
Workshops	Presentations
Seminars	Lectures
Conferences	
Information products and technical resources	

Delivery methods were included based on observable groupings in the graphs that follow.

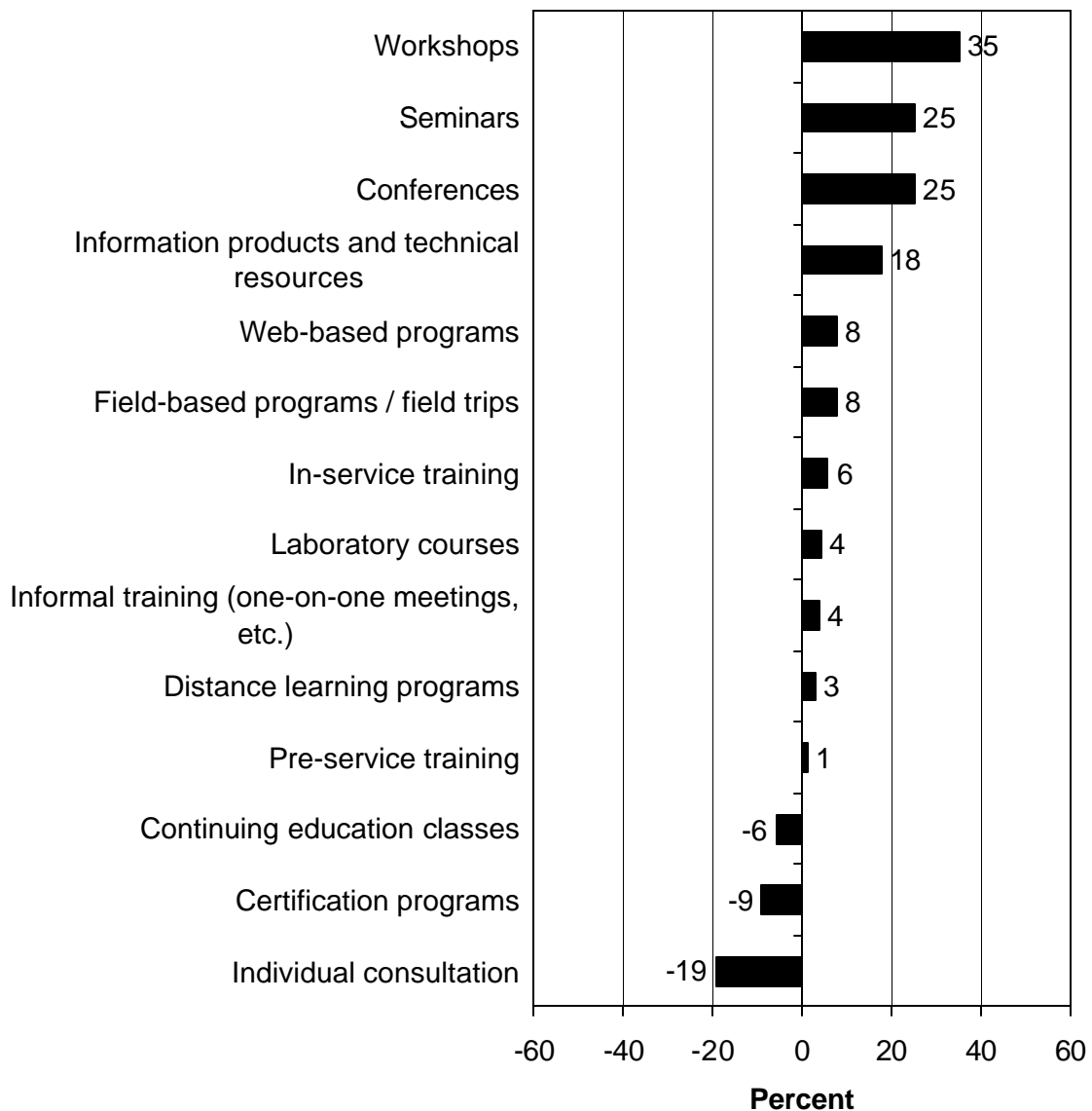
DELIVERY METHODS FOR WHICH THERE IS UNMET DEMAND

DELIVERY METHODS WITH UNMET DEMAND—PART A	DELIVERY METHODS WITH UNMET DEMAND—PART B
Individual consultation	Demonstrations
Certification programs	One-on-one instruction
Continuing education classes	Hands-on activities

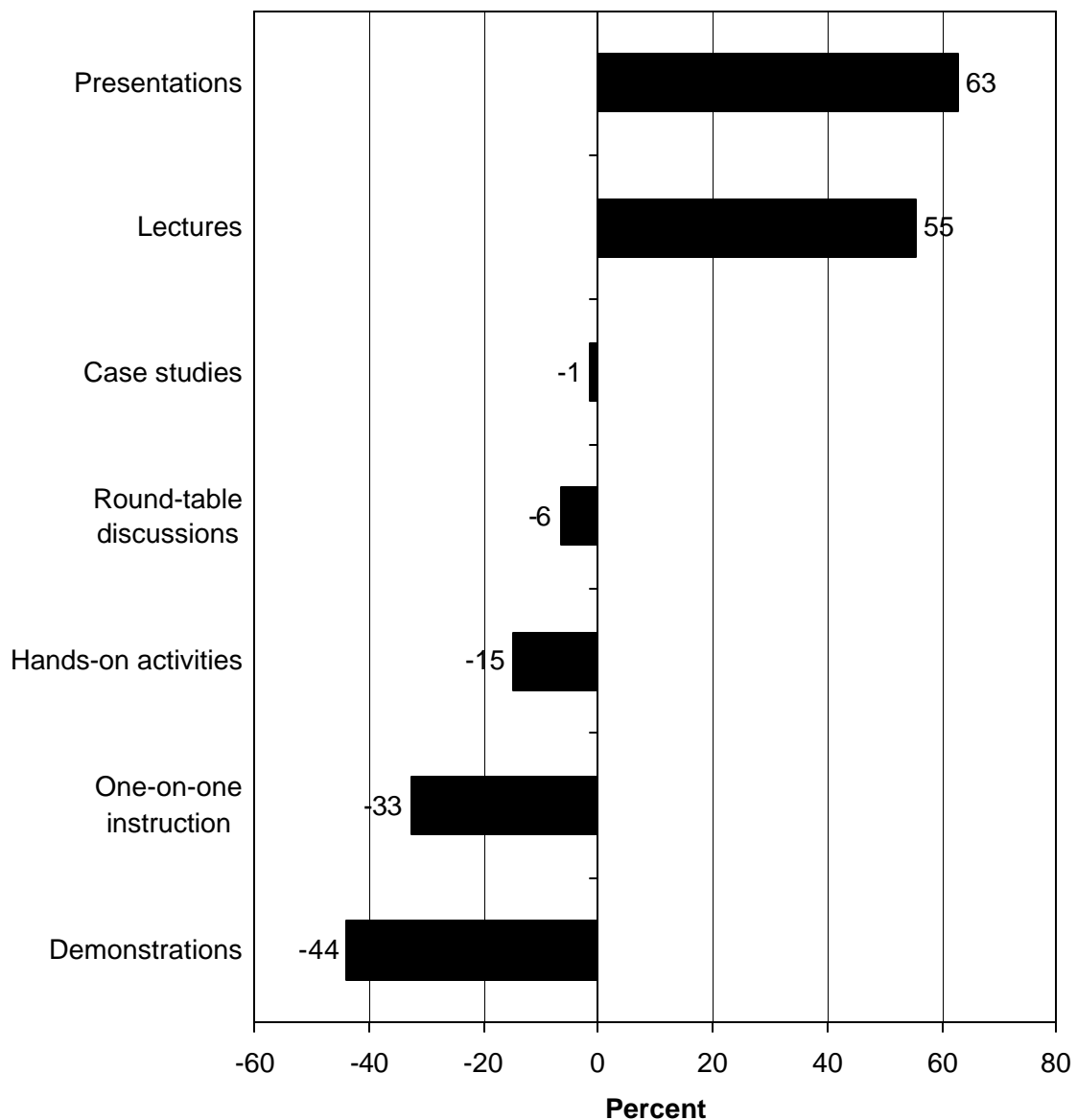
Delivery methods were included based on observable groupings in the graphs that follow.

- Another comparison examined the coastal training delivery methods currently offered by providers and the delivery methods that the providers *think* that they should offer. These questions are also divided into Parts A and B, as above. In this analysis, there appears to be unmet demand for web-based programs and certification programs (from Part A) and case studies and demonstrations (from Part B).

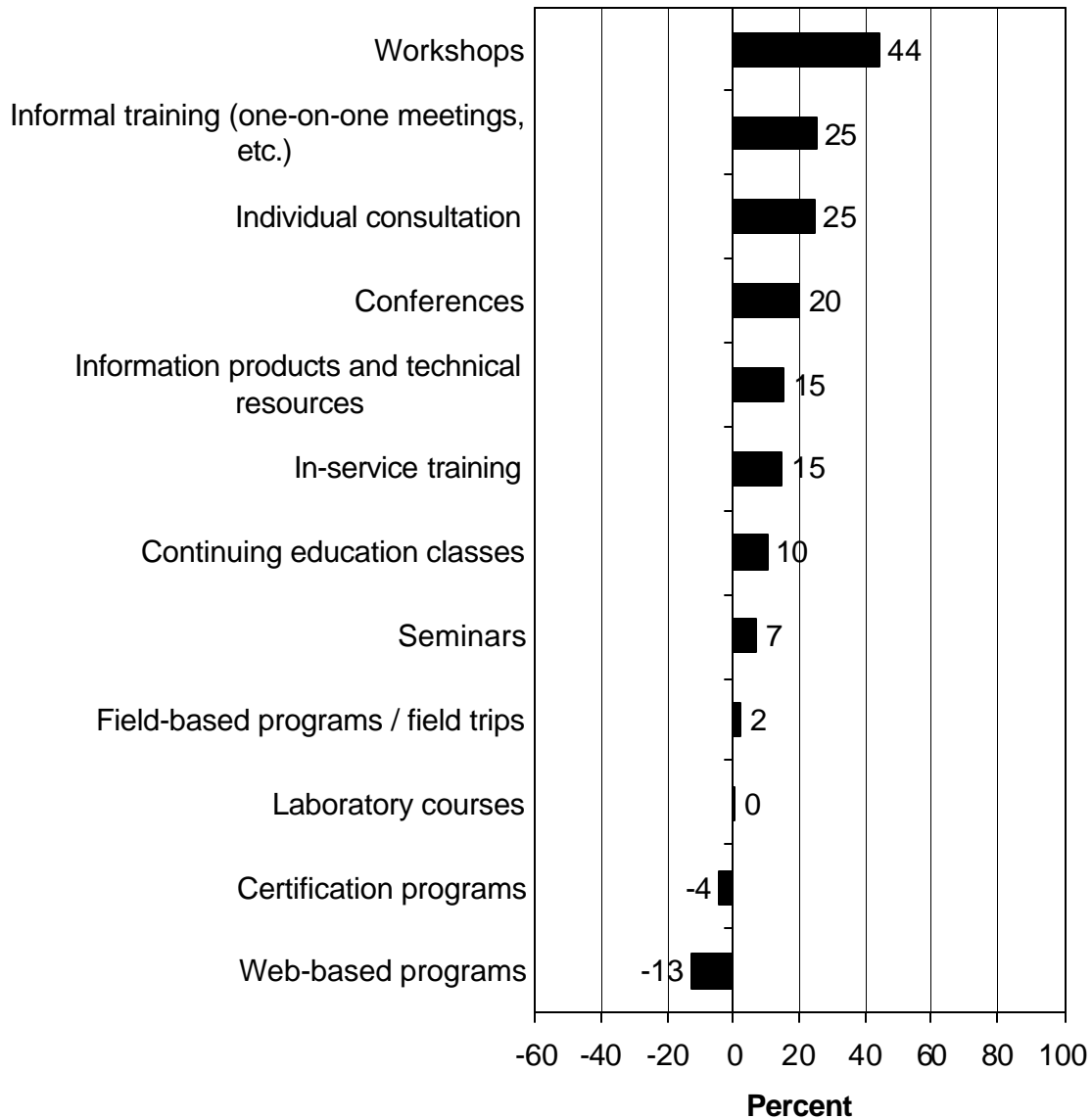
**Supply of various coastal resource training delivery methods versus demand (percent of agencies/organizations currently offering them minus percent of decision-makers who rate the various professional delivery methods as very effective).
(Part A.)**



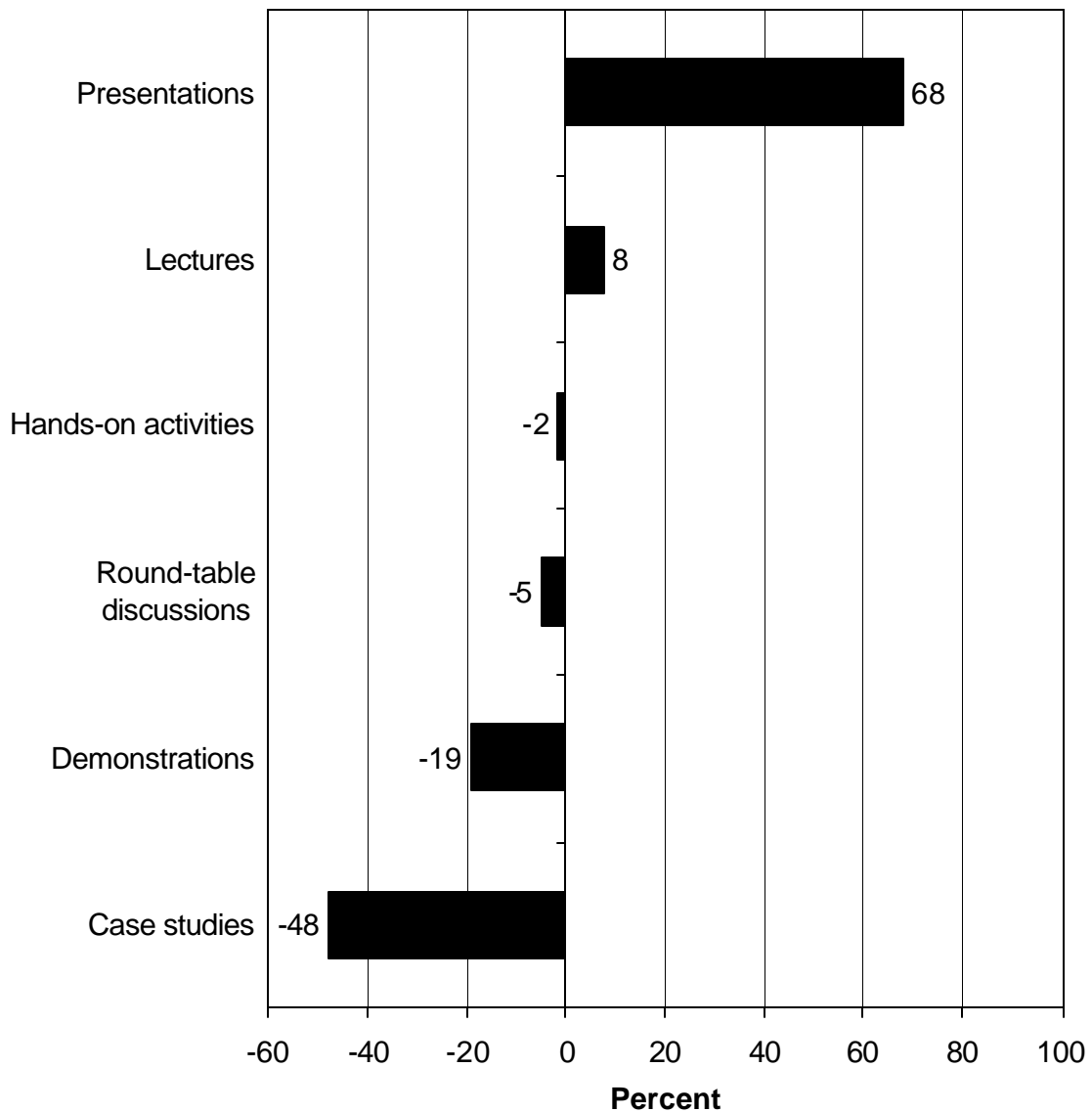
**Supply of various coastal resource training delivery methods versus demand (percent of agencies/organizations currently offering them minus percent of decision-makers who rate the various professional delivery methods as very effective).
(Part B.)**



Types of coastal resource training delivery methods agency/organization currently offers versus types of coastal resource training delivery methods that respondent would like his agency/organization to offer (but which the agency/organization does not currently offer). (Part A.)



Types of coastal resource training delivery methods agency/organization currently offers versus other types of coastal resource training delivery methods that respondent would like his agency/organization to offer (but which the agency/organization does not currently offer). (Part B.)



GROUPS WITH TRAINING NEEDS

- One comparison is of decision-makers' perceptions of demand for coastal training among various groups versus providers' perceptions of demand for coastal training among various groups. In this comparison, 10 groups stand out as having much unmet demand for coastal training: estuarine researchers, wetland scientists, fisheries and wildlife personnel, environmental protection agency personnel, environmental educators, soil and water conservation districts, universities, marine resource agency personnel, environmental consultants, and coastal regulators. Note the absence of elected municipal officials, although some government agency personnel are included.

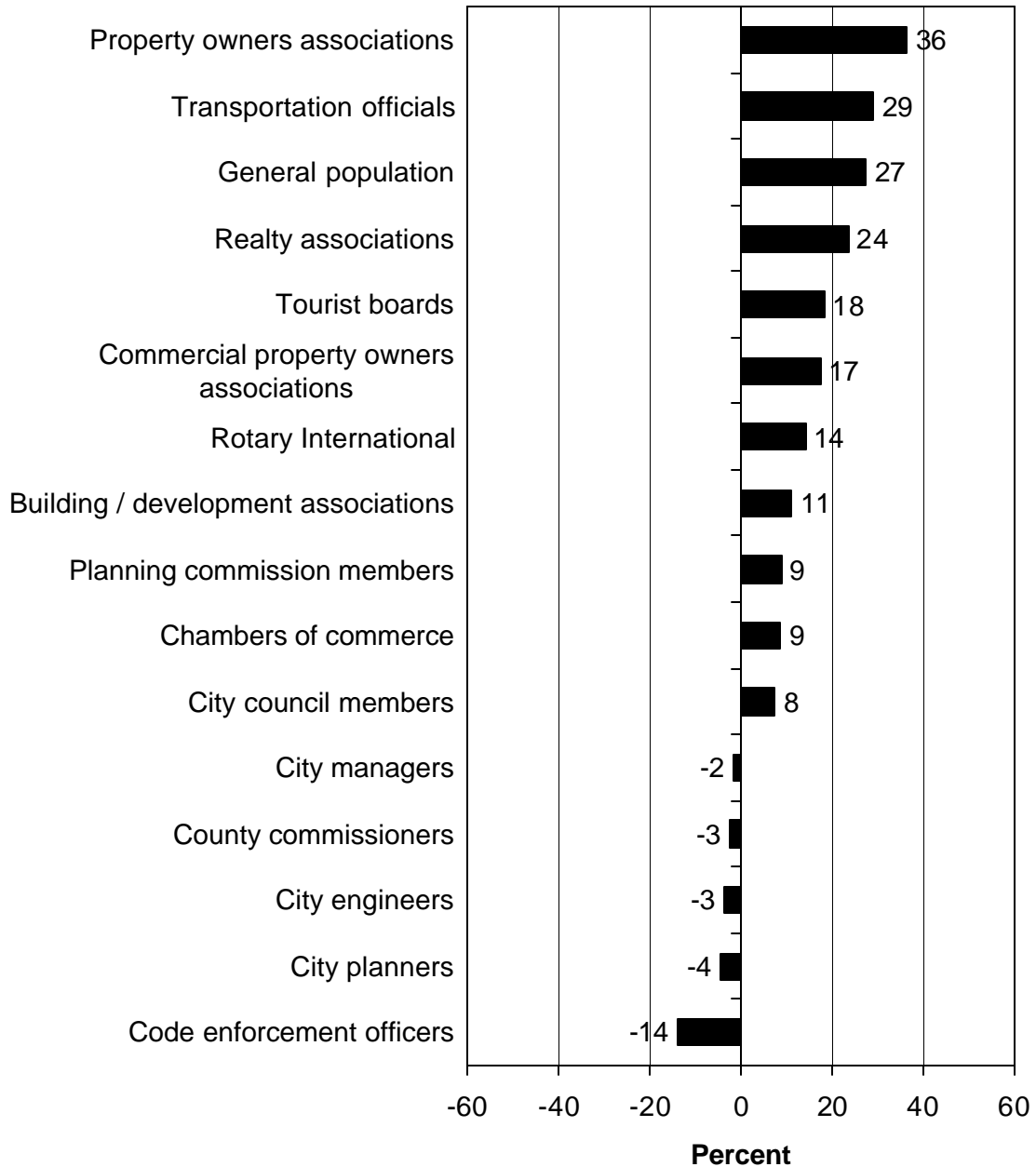
- The researchers compared the perception of groups (e.g., planners, county commissioners) that have a high need for coastal training with the amount of agencies/organizations that actually provide the groups with coastal training. In this analysis, all groups except for the general public show an unmet demand for coastal training. In particular, however, the following groups in this analysis have much apparent unmet demand: soil and water conservation districts, city planners, county commissioners, building/development associations, city engineers, city managers, planning commission members, environmental consultants, code enforcement officers, and environmental health officials. Note that seven of these 10 groups are non-elected municipal officials and personnel.

- Another comparison is of the perception of groups that have a high need for coastal training and the perception among providers regarding to whom they *should* provide coastal training. Again, nearly all groups show unmet demand. However, with particularly much unmet demand are county commissioners, soil and water conservation districts, city engineers, environmental protection agency personnel, city managers, wetland scientists, environmental consultants, and estuarine researchers.

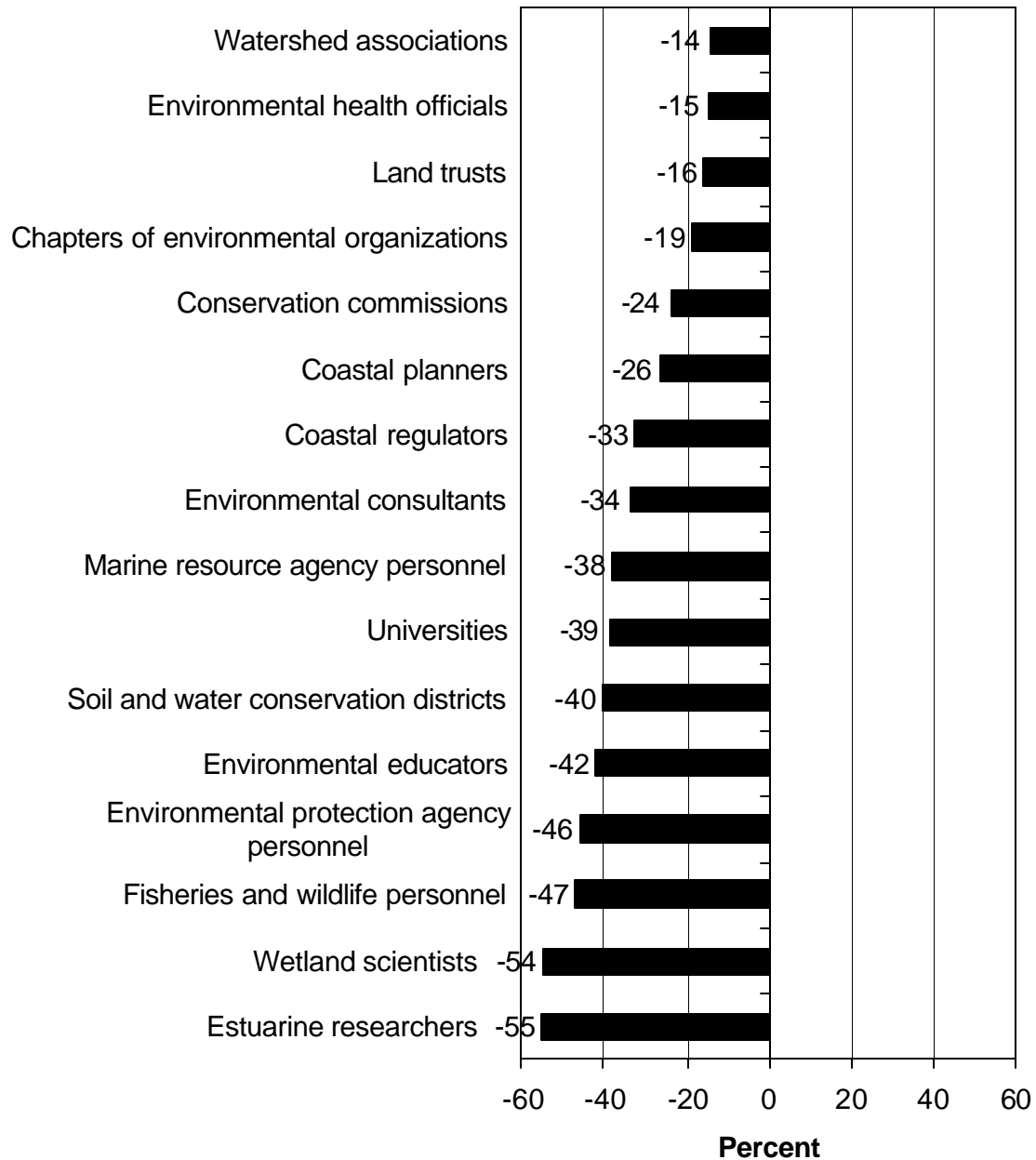
- A final comparison is of the groups currently being targeted for coastal training by coastal resource organizations versus providers' perceptions of the groups that *should* be targeted. Most of the groups show unmet demand. However, with particularly high amounts of unmet demand are property owners associations, real estate developers, building/development

associations, conservation commissions, chapters of environmental organizations, landscape architects, private engineering/land planning firms, watershed associations, and city planners. Note that high number (relatively speaking) of groups involved with land use and construction/development.

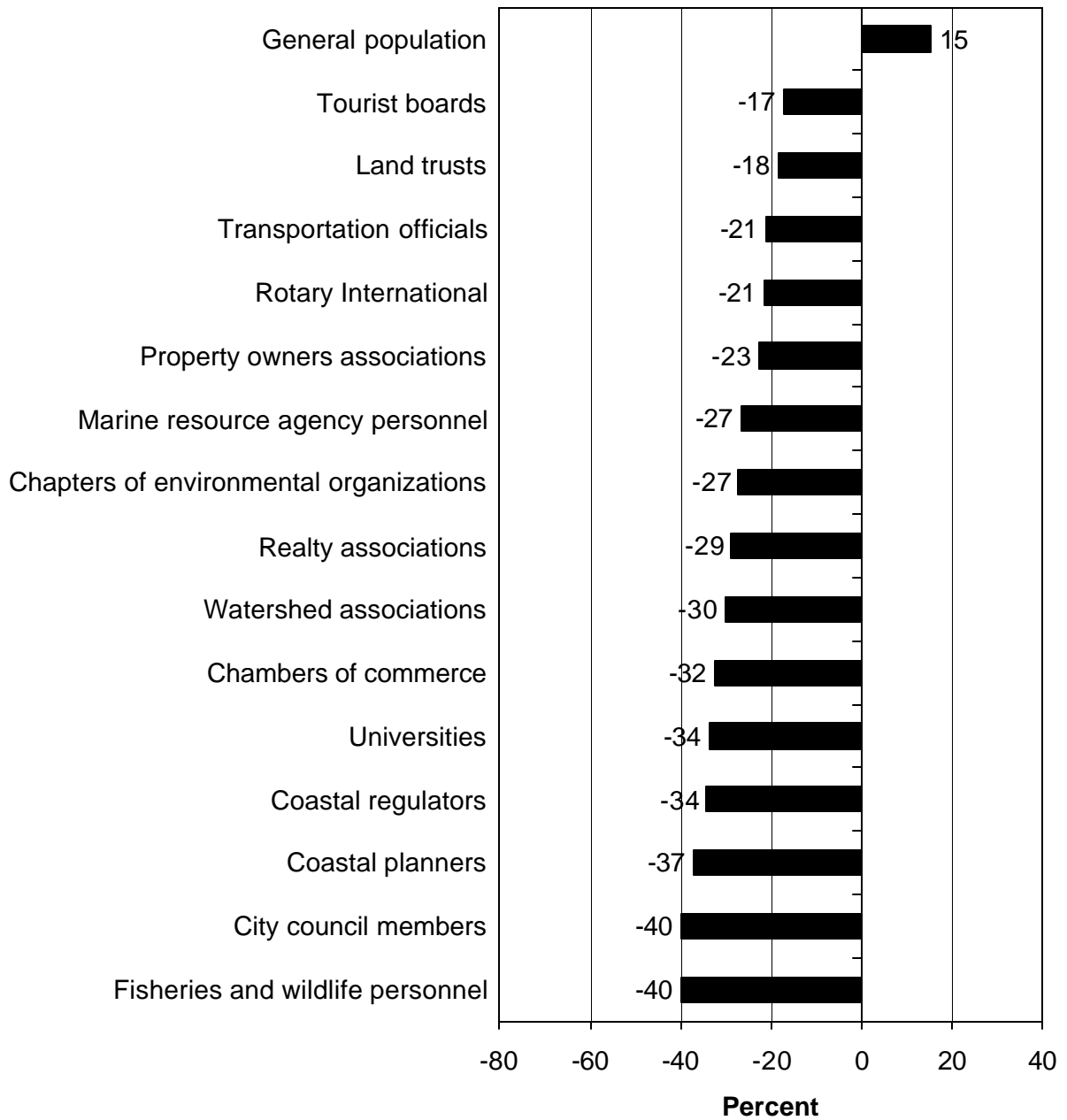
Providers' perceptions of demand for coastal resource training among various groups versus decision-makers' perceptions of demand for coastal resource training among various groups. (Part 1.)



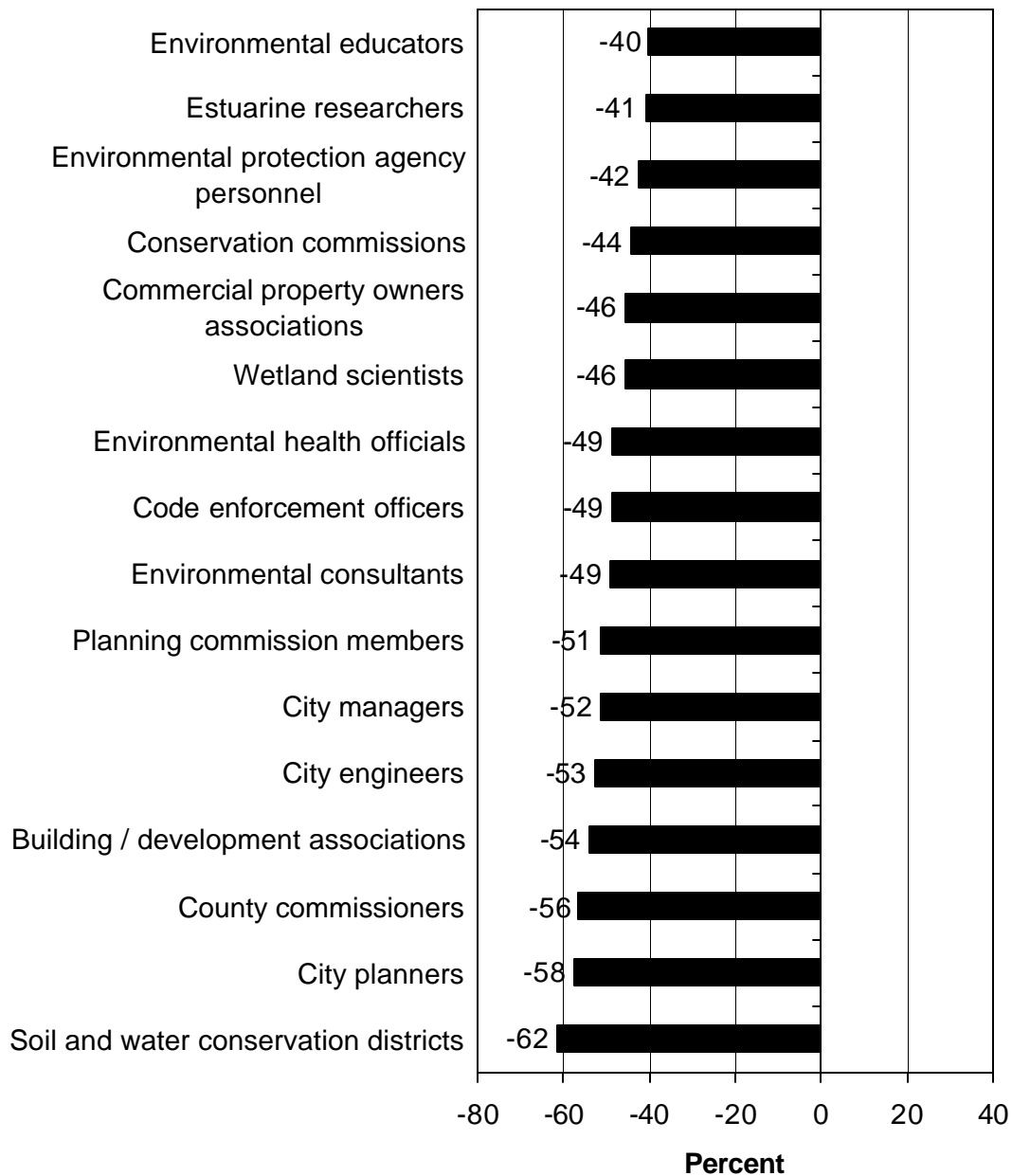
Providers' perceptions of demand for coastal resource training by various groups versus decision-makers' perceptions of demand for coastal resource training by various groups. (Part 2.)



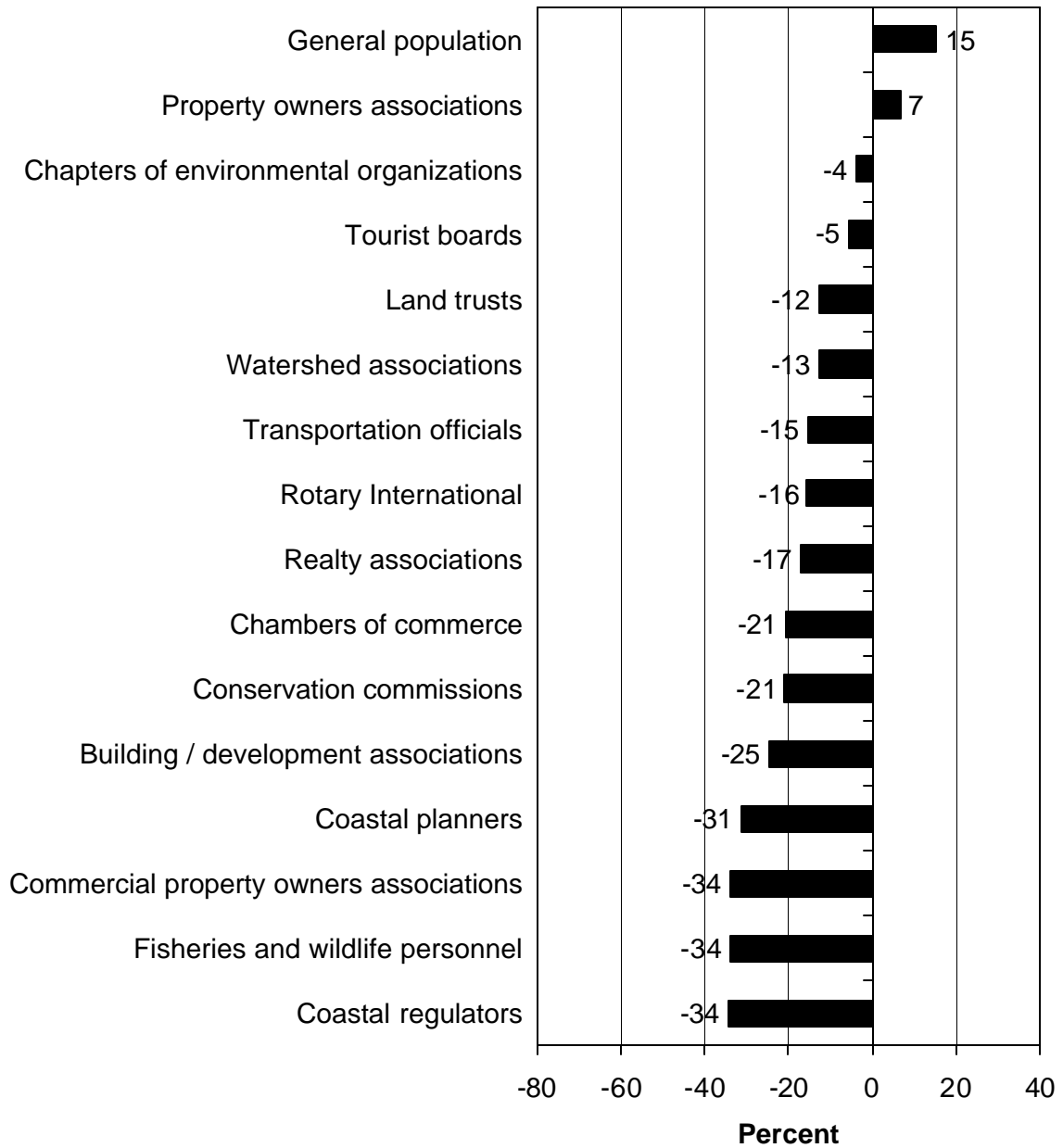
Groups currently targeted for coastal resource training or information versus groups rated as having a high need for receiving coastal information and/or professional development in Georgia. (Part 1.)



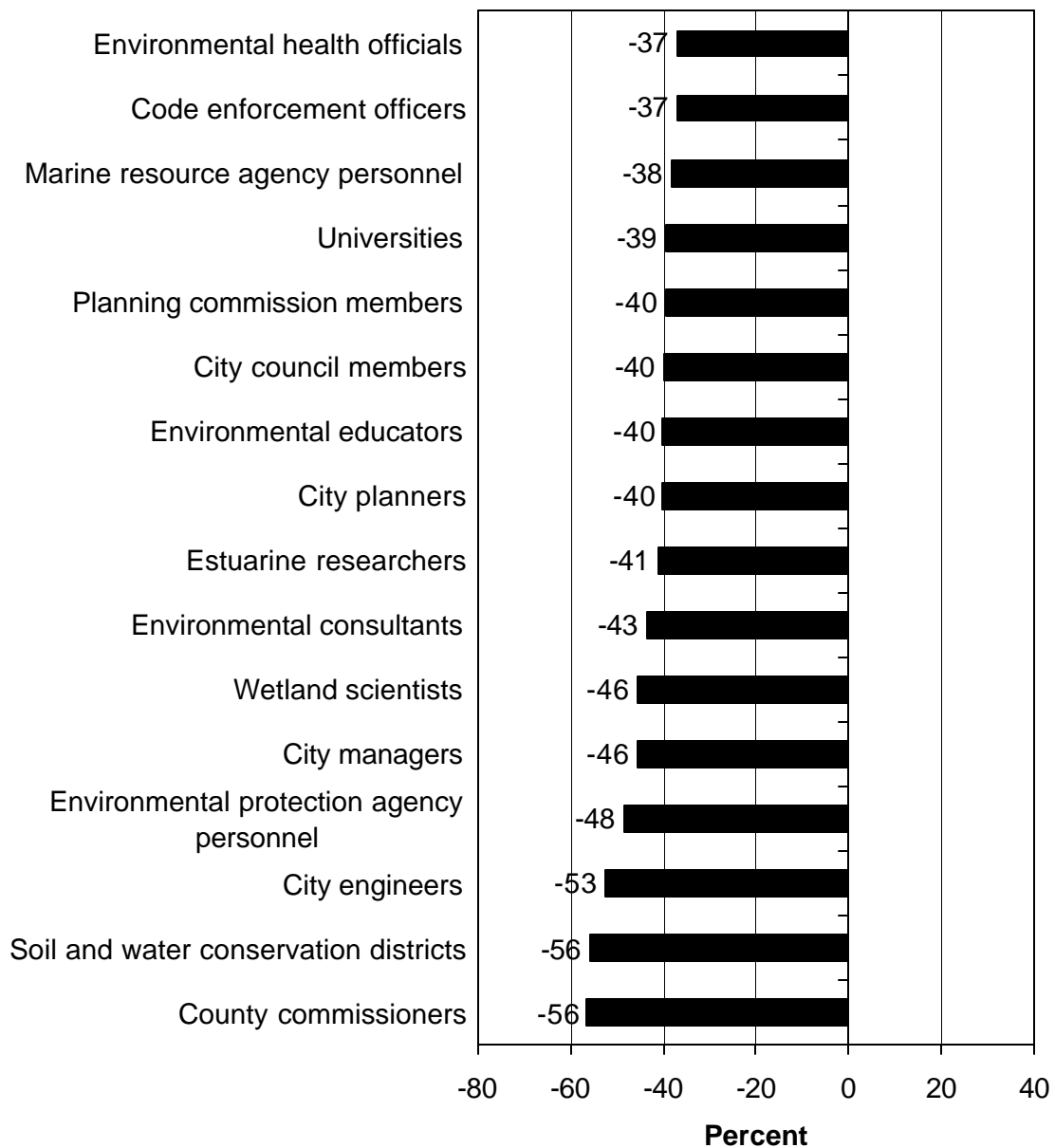
Groups currently targeted for coastal resource training or information versus groups rated as having a high need for receiving coastal information and/or professional development in Georgia. (Part 2.)



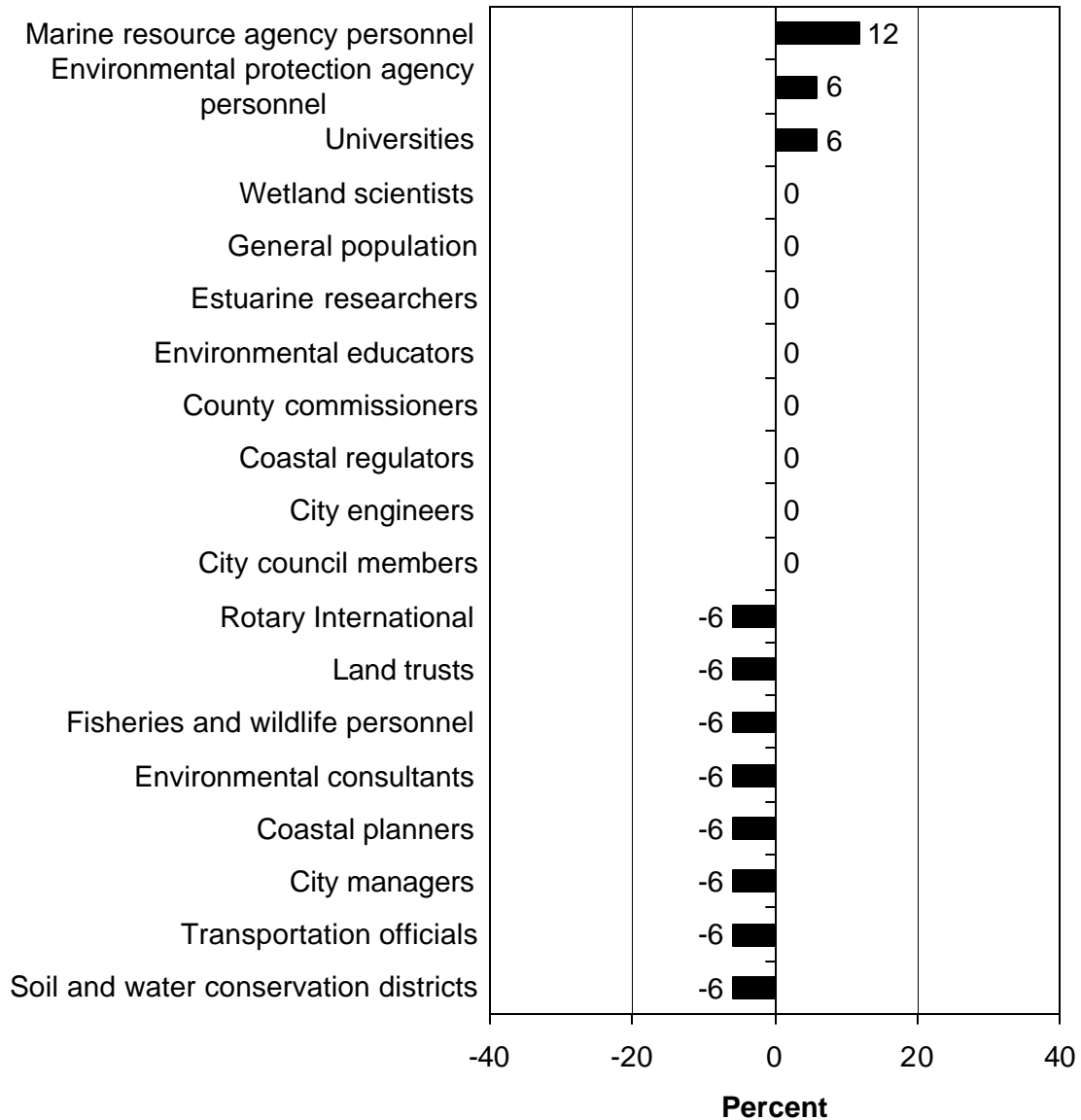
**Providers' perceptions of the groups that *should* be targeted for coastal resource training or information versus groups rated as having a high need for receiving coastal information and/or professional development in Georgia.
(Part 1.)**



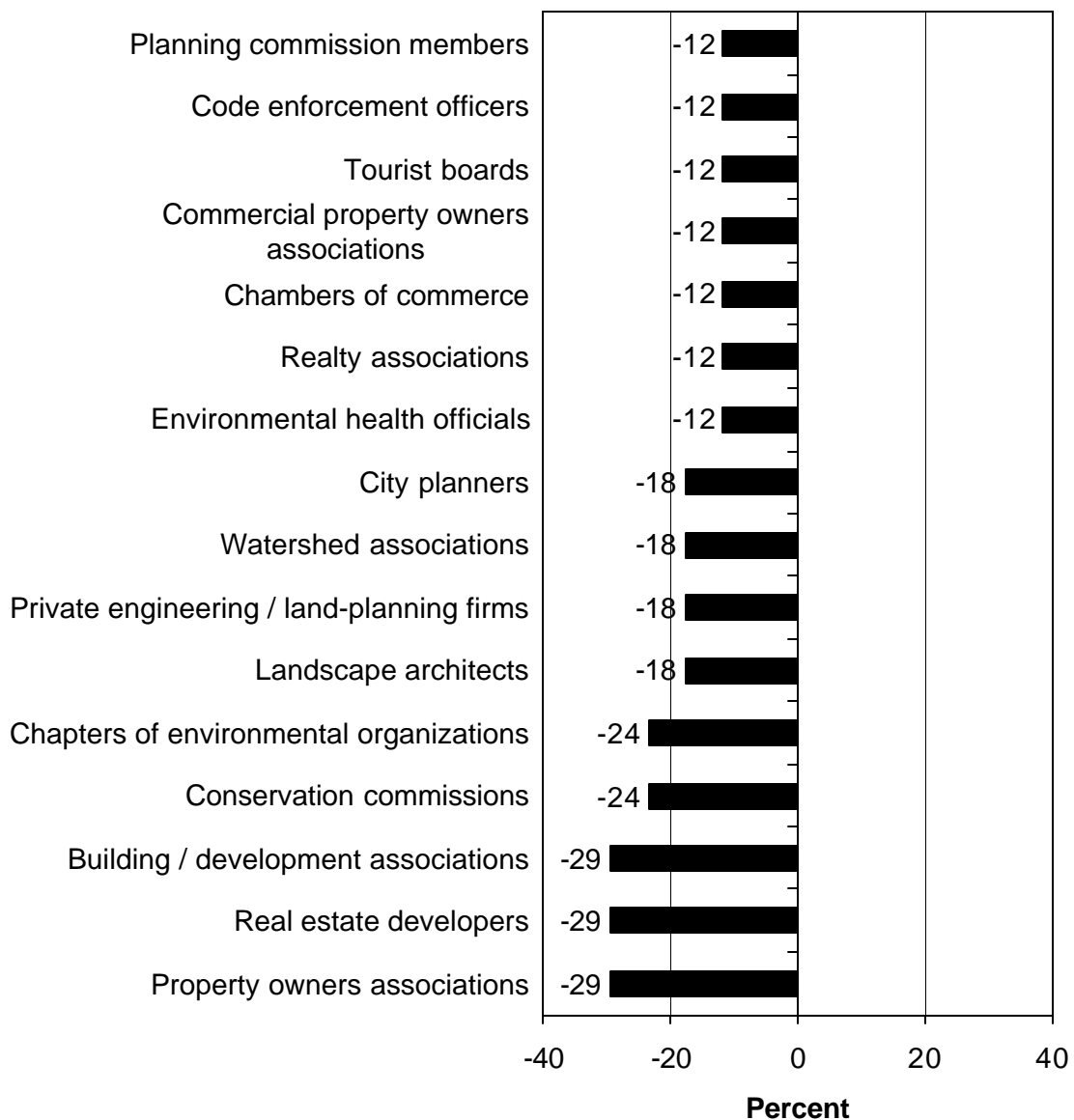
Providers' perceptions of the groups that *should* be targeted for coastal resource training or information versus groups rated as having a high need for receiving coastal information and/or professional development in Georgia. (Part 2.)



Groups currently targeted for coastal resource training or information by department/division or agency/organization versus providers' perceptions of the groups that *should* be targeted for coastal resource training or information by department/division or agency/organization. (Part 1.)



Groups currently targeted for coastal resource training or information by department/division or agency/organization versus providers' perceptions of the groups that *should* be targeted for coastal resource training or information by department/division or agency/organization. (Part 2.)



RECOMMENDATIONS AND IMPLICATIONS

GENERAL RECOMMENDATIONS

- Overall interest in coastal training is high. This suggests that encouraging attendance is a matter of increasing opportunities and facilitating attendance rather than increasing interest. The data indicate that there is an untapped “market,” as more than half of decision-makers in the survey indicated that they had *not* received coastal training in the year previous to the survey.
- Decision-makers more often disagree than agree that there are enough coastal training providers that offer training to decision-makers. This further supports the finding that there is a high demand for coastal training. Additionally, when asked about the primary inhibiting factors preventing “change and advancement” in their community, decision-makers commonly say lack of training and/or expertise.
- Because the majority of decision-makers do *not* participate in coastal training annually, but do so sporadically, attendance of coastal training may be enhanced through promoting future coastal training opportunities at each training event/session that is conducted. This may help cause *sporadic* attendees to become *annual* attendees. In addition, many decision-makers attend only one event/session per year, so promotion of future events/sessions may also prompt these decision-makers to attend more than once a year.
- Programs that include making technology more available to decision-makers should be considered. The data found that a majority of decision-makers (57%) rate the availability of technology for coastal management as less than “good” (on the scale running from “excellent” to “very poor”).
- Lack of cooperation between agencies and/or organizations was commonly indicated as being a primary inhibiting factor preventing “change and advancement” in decision-makers’ community, suggesting a need for programs that facilitate cooperation between agencies and/or organizations.

- There is a disparity between decision-makers' views on the quality of the environment in their communities and the corresponding views of coastal resource organization respondents: whereas decision-makers are more likely to believe that the quality of the environment in their coastal areas has remained the same or improved in the past two years (55% say it has stayed the same, while 25% say it has improved), the overwhelming majority of coastal resource organization respondents feel that the quality of the environment has worsened (73% say it has gotten worse). When planning future coastal resource training and information initiatives, this finding should be taken into account (as well as similar disparities in awareness and knowledge levels of coastal issues); such differences in perceptions suggests the potential for decision-making groups and audiences to ignore or treat lightly the training and information expertise of groups they may view as "alarmist" or characterized by overreaction.

- Use the data in this report as an ongoing resource. You may see things in the data beyond the recommendations made by the researchers, particularly because you are close to the issues, both geographically and thematically. Any decision about coastal training should be made with these data in mind, even if not specifically covered in the recommendations presented herein.

LOGISTICS OF TRAINING SESSIONS

- Decision-makers indicate that the winter is the optimal time for coastal training—the leading season by far. Therefore, realize that coastal training held in the spring or fall, or especially the summer, may be less convenient than coastal training held in the winter.

- Weekdays are overwhelmingly preferred for coastal training over weekends.

- Decision-makers showed a preference for having coastal training during (or starting) in the morning rather than the afternoon.

- Half-day to day-long sessions are the optimal length of coastal training. Almost no decision-makers have a preference for sessions longer than a day, the latter which would also increase the cost of attending, likely prohibitively so.

- A high percentage of decision-makers said that they prefer to be notified about coastal training via direct mail or e-mail. Considering the latter's cost effectiveness (particularly relative to direct mail), this medium should be used as much as possible.

- Overwhelmingly, decision-makers prefer on-line registration (relative to mail-in or telephone registration). Given this finding, participation in coastal training will be hampered if this format for registering is unavailable.

COASTAL TRAINING TOPICS

- As was mentioned previously in the general recommendations, use the data herein as a continuing resource. In particular, the data on the topics that are most in demand, as well as the comparison of what is available versus what is in demand, will prove extremely useful in making decisions regarding the topics that should be offered in coastal training.

- In making decisions about content of coastal training, as well as outreach publicizing coastal training that is being offered, keep in mind that the data showed low awareness levels of the programs listed below. If these programs are not being fully utilized, their outreach components should be enhanced.
 - Federal Consistency Review
 - Coastal Ark
 - Coastal Nonpoint Source (6217) Program
 - Nonpoint Education for Municipal Officials
 - Sea Grant Coastal Communities and Economies Program

- In addition to the programs listed above, there was a low level of familiarity with Georgia's 303(d) list. (The list indicates streams/ivers in Georgia that are declared impaired because they failed water quality standards—either federal water quality standards or state standards that are dependent on the water body's designated use, e.g., fishing, swimming.)

- The comparisons of topics offered versus the topics in demand suggest that the following topics have greater demand than is presently being met.
 - Water quantity
 - Coastal construction
 - Land use planning
 - Wastewater management
 - Zoning
 - Sustainable building
 - Docks and piers
 - Boat/marina management

- Renewable energy
 - Low impact development
 - Coastal community development
 - The economic aspects of land use
 - Beach nourishment
 - Erosion and sediment control
- Another set of questions asked decision-makers to identify areas in which they have a high need for training as well as the areas in which they have received a high level of training. They indicated that they need training in the topics listed below. For some of the topics, they are currently receiving or have received a high level of training; for other topics, they have *not* received much training, despite indicating a need for it. This is noted in parentheses in the list below.
- Water quantity (high demand, good supply)
 - Land use planning (high demand, good supply)
 - Zoning (high demand, good supply)
 - Ordinances and regulations (high demand, good supply)
 - Stormwater management (high demand, inadequate supply)
 - Water quality (high demand, inadequate supply)
 - Coastal community development (high demand, inadequate supply)
- Note that the findings of the needs assessment includes a listing of the aspects of various topics that were important for decision-makers' communities, which should be used as a resource in decisions regarding topics for coastal training. For instance, this analysis found that within the broad field of stormwater, the aspects that are of high importance to communities include stormwater's effects on marsh grasses, the implementation of stormwater management plans, and the setting of regulations concerning stormwater.

COASTAL TRAINING FORMATS

- A comparison of the types of formats that providers offer and the types of formats that decision-makers want reveals that several types of formats have a demand that is not being met. These are listed below. Unfortunately, many of these formats are quite labor-intensive, limiting providers' ability to offer these types. Nonetheless, use of these formats should be considered, when and where possible, because they are the formats that are not only considered highly effective but that are not currently being widely offered.
 - Individual consultations
 - Certification programs
 - Continuing education classes
 - Demonstrations
 - One-on-one instruction
 - Hands-on activities
 - Web-based programs
 - Case studies

- A low percentage of decision-makers rated the Internet as effective for providing coastal training/information. Their reasons should be further explored, particularly in light of the fact that the Web can be very effective for some types of training. A good feature of the Web is that it allows users to access the training/informational materials at their own convenience. The low rating among decision-makers of the effectiveness of the Web may be caused by a lack of ability in using Web-based applications or data sources. Alternately, it may be a simple lack of awareness of which sites provide the needed training or information. Nonetheless, the data suggest that decision-makers' use of the Web should be enhanced.
 - A related finding is that distance learning programs were not highly rated as being effective for learning about coastal resource issues. Again, given the convenience of distance learning programs to the user—they usually can learn at their own pace and schedule—their low rating in effectiveness should be further examined.

- As discussed previously, the data in this report should be used as an ongoing resource. Refer to the section on the comparison of formats offered and formats desired when making

decisions about the format(s) of upcoming training. Attempts should be made to incorporate formats that are currently not widely offered into future coastal training offerings.

GROUPS TO BE TARGETED FOR COASTAL TRAINING

- As was done above, a comparison was made of *decision-makers'* perceptions of demand for coastal training among various groups versus *providers'* perceptions of demand for coastal training among various groups. Several groups stand out as having much unmet demand for coastal training, listed below. Interestingly, *elected* local officials are largely absent from this list, but other agency personnel are included. Many elected officials depend on agency personnel to inform them about issues, so any information and training given to agency personnel may be transmitted to elected officials via this “conduit.” (Planners and engineers were the top groups from which decision-makers said that they get information.)
 - Estuarine researchers
 - Wetland scientists
 - Fisheries and wildlife personnel
 - Environmental protection agency personnel
 - Environmental educators
 - Soil and water conservation districts
 - Universities
 - Marine resource agency personnel
 - Environmental consultants
 - Coastal regulators

- Another comparison was made of groups that are currently targeted for coastal training versus the groups that decision-makers perceive as needing coastal training. In particular, the following groups have much apparent unmet need.
 - Soil and water conservation districts
 - City planners
 - County commissioners
 - Building/development associations
 - City engineers
 - City managers
 - Planning commission members

- Environmental consultants
 - Code enforcement officers
 - Environmental health officials
- The data in this report should be used as an ongoing resource. Refer to the section on the comparison of target groups that receive training versus the target groups that are in need of training when making decisions about which groups to target in upcoming training. Obviously, the topic will largely determine which group should receive any particular training, but otherwise attempts should be made to serve these groups that are perceived as needing coastal training.

APPENDIX: COUNTY ANALYSES

This appendix contains additional analysis of survey questions selected by the SINERR and the GCMP. Answers to the following questions have been analyzed according to the counties in which the survey of coastal decision-makers was conducted.

The analyses are displayed in frequency tables for ease of reading. In the frequency tables, each number listed represents the actual number of answers submitted for that particular county (note that the number is not a percentage, as in the graphs that appear elsewhere in this report). Blank cells within the frequency tables may indicate low interest or knowledge of a topic area or subject; alternatively, cells may be blank because a respondent either chose a different answer within the answer set or did not answer the question.

Coastal training topics on which decision-makers received a high degree of training in the past year.

	Brantley	Bryan	Camden	Charlton	Chatham	Effingham	Glynn	Liberty	Long	McIntosh	Wayne	Total
Beach nourishment					10		1					11
Biodiversity												0
Boat / marina management							2					2
Buffers	5	1			1		1			1		9
Coastal community development		1			8		1			1		11
Coastal construction										1		1
Coastal hazards												0
Coastal processes												0
Docks and piers							1					1
Economic aspects of land use	5	1			2		1					9
Environmental aspects of land use	5	2			1		1			1		10
Environmental technologies		1								1		2
Erosion and sedimentation control	5	2	1			1				1		10
GIS (Geographic Information System)							1					1
Habitat change							1					1
Habitat restoration and protection							1					1
Impacts of human disturbances		1					1			1		3
Invasive species					6		1					7
Land use planning	5	2			12		1			2		22
Low impact development		2			1		1			2		6
Marine debris												0
Native plant and animal species							1					1
Nutrient enrichment							1					1
Ocean management												0
Ordinances and regulations		1			11		1	1				14
Renewable energy					1							1
Saltmarshes					1							1
Septic tanks		1										1
Stormwater	5	1					1			1		8
Sustainable building		1			10		1					12
Wastewater management	5	1					1					7
Water quality	5	1			1		1			1		9
Water quantity	5	2			10		1			1		19
Wetlands and waterways protection		1			1	1				1		4
Zoning		2	1		18	1	1			1		24

Coastal training topics on which decision-makers received a low degree of training in the past year.

	Brantley	Bryan	Camden	Charlton	Chatham	Effingham	Glynn	Liberty	Long	McIntosh	Wayne	Total
Beach nourishment	5	1	1		2		1	1				11
Biodiversity			1		13		1	1				16
Boat / marina management	5		1		13			1				20
Buffers			1		1		1					3
Coastal community development												0
Coastal construction					1							1
Coastal hazards	5				11			1				17
Coastal processes	5				12			1				18
Docks and piers	5		1		11		1					18
Economic aspects of land use					2			1				3
Environmental aspects of land use					9			1				10
Environmental technologies	5		1		11		2	1				20
Erosion and sedimentation control					11		1					12
GIS (Geographic Information System)			1		12							13
Habitat change	5		1		13		1	1				21
Habitat restoration and protection	5		1		4		1					11
Impacts of human disturbances			1		9							10
Invasive species	5	1	1		13		1	1				22
Land use planning			1									1
Low impact development	5		1		9		1					16
Marine debris	5	1	1		4		1	1				13
Native plant and animal species	5		1		13							19
Nutrient enrichment	5	1	1		13		1	1				22
Ocean management	5	1	1		13		2	1				23
Ordinances and regulations							1					1
Renewable energy		1	1		10		1	1				14
Saltmarshes	5		1		12		1	1				20
Septic tanks			1		3		1					5
Stormwater					1		1					2
Sustainable building			1		1		1	1				4
Wastewater management					12		1					13
Water quality			1		11		1					13
Water quantity			1		1		1					3
Wetlands and waterways protection					11							11
Zoning							1					1

Decision-makers who indicated being very familiar with the following programs before the survey.

	Brantley	Bryan	Camden	Charlton	Chatham	Effingham	Glynn	Liberty	Long	McIntosh	Wayne	Total
Georgia Coastal Management Program		1			10		2	6		1		20
Water Quality Monitoring Program	5	1	1		2			1		1	1	12
Georgia Coastal Management Program's Local Government Assistance		1	1		3		1	6		1	1	14
Federal Consistency Review			1		4		3	1				9
Coastal Ark	5				2		1	3		1	1	13
Direct Permit Authorities			1		4	1	1	1				8
Coastal Nonpoint Source (6217) Program		1			2	1	1	1				6
Coastal Advisory Council	5	1	5		2		1	6				20
Coastal Incentive Grant Program		1			11	1	1	7		1	1	23
Nonpoint Education for Municipal Officials	5	1			1		1					8
Sea Grant Coastal Communities and Economies Program					2							2
Marine Extension Service	5				20	1	3	1		2		32
Sapelo Island National Estuarine Research Reserve Coastal Training Program		1			18	1	2	1		3		26

Decision-makers who indicated being very or somewhat familiar with the following programs before the survey.

	Brantley	Bryan	Camden	Charlton	Chatham	Effingham	Glynn	Liberty	Long	McIntosh	Wayne	Total
Georgia Coastal Management Program	5	7	11	1	24	3	3	10	1	3	3	71
Water Quality Monitoring Program	6	6	16	1	31	3	4	10		3	3	83
Georgia Coastal Management Program's Local Government Assistance	6	4	4	1	22	3	3	8		3	2	56
Federal Consistency Review	5	3	9		6	2	4	7		1		37
Coastal Ark	5	2	2		4		4	8		2	1	28
Direct Permit Authorities	5	2	9		23	2	2	8		3	1	55
Coastal Nonpoint Source (6217) Program	5	2	3		15	2	3	6		2	2	40
Coastal Advisory Council	5	8	15	1	16	3	4	10		2	2	66
Coastal Incentive Grant Program	6	4	14	1	23	3	3	9		1	4	68
Nonpoint Education for Municipal Officials	6	5	1	1	4	1	2	5			2	27
Sea Grant Coastal Communities and Economies Program	5	1	8		6	2	4	1		2		29
Marine Extension Service	5	5	4		25	3	4	8		2	2	58
Sapelo Island National Estuarine Research Reserve Coastal Training Program	5	7	4		23	3	5	7		3	3	60

Decision-makers who indicated being not at all familiar with the following programs before the survey.

	Brantley	Bryan	Camden	Charlton	Chatham	Effingham	Glynn	Liberty	Long	McIntosh	Wayne	Total
Georgia Coastal Management Program	5	1	6		2	1	3	3			1	22
Water Quality Monitoring Program	6	2	1		2	1	2	3	1		1	19
Georgia Coastal Management Program's Local Government Assistance	6	4	13		11	1	3	5	1		2	46
Federal Consistency Review	7	5	8	1	27	2	2	6	1	2	4	65
Coastal Ark	7	6	15	1	29	4	2	5	1	1	2	73
Direct Permit Authorities	7	5	8	1	10	2	4	5	1		2	45
Coastal Nonpoint Source (6217) Program	7	6	14	1	18	2	3	7	1	1	2	62
Coastal Advisory Council	7		2		11	1	1	3	1		2	28
Coastal Incentive Grant Program	6	4	3		10	1	2	4	1	1		32
Nonpoint Education for Municipal Officials	6	2	16		29	3	3	8	1	2	2	72
Sea Grant Coastal Communities and Economies Program	7	7	9	1	27	2	1	12	1		4	71
Marine Extension Service	7	3	13	1	8	1	2	5	1		2	43
Sapelo Island National Estuarine Research Reserve Coastal Training Program	7	1	13	1	10	1	1	6	1		1	42

Decision-makers who indicated professionally having a high need for coastal resource training or information on the following topics.

	Brantley	Bryan	Camden	Charlton	Chatham	Effingham	Glynn	Liberty	Long	McIntosh	Wayne	Total
Beach nourishment		3			12	1	1	1				18
Biodiversity		3			3	2						8
Boat / marina management		3	4		8					1		16
Buffers	5	5	6		6	4	1	2	1	2	1	33
Coastal community development	5	6	9		14	1	4	2	1	3	1	46
Coastal construction	5	6	13		7	1	3	2		3	1	41
Coastal hazards		4	7		4	1	2	1	1	2	1	23
Coastal processes		4	7		2	1	1			2	1	18
Docks and piers		6	7		10		1	2				26
Economic aspects of land use	5	5	14		5	3	1	1	1	1		36
Environmental aspects of land use	5	5	9		8	3	4		1	2		37
Environmental technologies		6	8		3	2	2		1			22
Erosion and sedimentation control	5	6	2	1	5	3	3	3	1	2	1	32
GIS (Geographic Information System)		5	9	1	4	4	2	2		2	2	31
Habitat change		3	7		2	1	1			1	1	16
Habitat restoration and protection		3	7		2	1	2			1	1	17
Impacts of human disturbances		5	8		5	1	2	1	1	1	1	25
Invasive species		3	1		6	1	1				1	13
Land use planning	5	7	13	1	16	4	3	3	1	3	1	57
Low impact development		8	7		4	3	3	1		2	1	29
Marine debris		3	6		9					2		20
Native plant and animal species		4	6		1	1	1					13
Nutrient enrichment		3	6				1					10
Ocean management		3	6				2					11
Ordinances and regulations		6	8	1	17	3	2	3	1	3	1	45
Renewable energy	5	4	9	1	14	2	1			1	1	38
Saltmarshes		4	6		6		1			1		18
Septic tanks	5	6	7	1	13	3				1		36
Stormwater	5	7	8		14	3	1	2	1	3	1	45
Sustainable building	5	6	8		6	2	1		1	1		30
Wastewater management	5	6	8	1	3	4		2	1	3	1	34
Water quality	10	7	9	1	6	4	1	3		3	2	46
Water quantity	10	7	9	1	16	3	1	4		3	2	56
Wetlands and waterways protection	5	8	9		6	3	2	2	1	3	1	40
Zoning	5	7	9		17	4	4	2	1	3	1	53

Decision-makers who indicated professionally having a low need for coastal resource training or information on the following topics.

	Brantley	Bryan	Camden	Charlton	Chatham	Effingham	Glynn	Liberty	Long	McIntosh	Wayne	Total
Beach nourishment	10	3	17	1	6	3	1	6	1	3	2	53
Biodiversity	10	1	12	1	13		3	6		2	2	50
Boat / marina management	10	2	8	1	6	2	5	3	1		1	39
Buffers	5		9		12		1				1	28
Coastal community development	5		3		2	2		5			1	18
Coastal construction	5		3		3	2	2	3			2	20
Coastal hazards	5		3		3	2	2	3			1	19
Coastal processes	5		4		3	2	2	3	1		1	21
Docks and piers	1		1		4	3	4	3	1	1	2	20
Economic aspects of land use	1	1	2		2		1	4			1	12
Environmental aspects of land use	1		2		3		1	2			2	11
Environmental technologies			2		3		3	4			1	13
Erosion and sedimentation control			3		2		2	1			1	9
GIS (Geographic Information System)		1	6		4		1	8	1		1	22
Habitat change	1	1	7		11		3	4	1	1	2	31
Habitat restoration and protection	5	1	8		12		3	4	1	1	2	37
Impacts of human disturbances	5	1	8		12		1	1			2	30
Invasive species	1	1	8	1	14	1	4	11	1	1	2	45
Land use planning	6		3		1			1			1	12
Low impact development			3		3		1	4			2	13
Marine debris	1	2	1		5	3	5	6	1	1	2	27
Native plant and animal species	1	2	8		15	1	4	3	1	1	2	38
Nutrient enrichment	1	1	8		15	2	5	5	1	1	2	41
Ocean management	1	3	11	1	16	3	4	5	1	1	2	48
Ordinances and regulations			3		2		1				1	7
Renewable energy		1	7		2		3	3	1	1	1	19
Saltmarshes	5		2	1	3	3	2	4	1	1	2	24
Septic tanks			4		2		2	6		1	2	17
Stormwater			3		3		1	3			1	11
Sustainable building			2		3		1	3			2	11
Wastewater management	5		2		3		2	3			1	16
Water quality	2		1		1			3			1	8
Water quantity			1		3			1			1	6
Wetlands and waterways protection	5		7		2						2	16
Zoning			2					8			1	11

Decision-makers who indicated there is a high need for additional coastal resource training or information in his or her coastal community.

	Brantley	Bryan	Camden	Charlton	Chatham	Effingham	Glynn	Liberty	Long	McIntosh	Wayne	Total
Beach nourishment			1		12		4	1				18
Biodiversity		3	6		3	1	3					16
Boat / marina management		5	9		8		3	2		2		29
Buffers		5	7		5	2	5	6		2		32
Coastal community development		6	9		12		6	4		3		40
Coastal construction		6	9		12		5	4		3		39
Coastal hazards		5	8		1	2	6	2		2		26
Coastal processes		4	8		2	1	5	2		2		24
Docks and piers		5	8		10		3	3		1		30
Economic aspects of land use		4	15		7	3	5	1		2		37
Environmental aspects of land use		5	10	1	14	2	5	9		3	1	50
Environmental technologies		2	9		4	1	4	8		2	1	31
Erosion and sedimentation control		5	8	1	13	2	3	10		3	1	46
GIS (Geographic Information System)		1	11	1	4	4	3	4		2	1	31
Habitat change		3	8		3	1	3	3		1	1	23
Habitat restoration and protection		3	8	1	3	1	3	2		1	1	23
Impacts of human disturbances		5	9	1	6	2	4	3		1		31
Invasive species		3	8		7		2			1		21
Land use planning		1	15		15	4	5	5		3	1	49
Low impact development		5	8		12	2	4	3		3		37
Marine debris		3	7		3		3	2		2		20
Native plant and animal species		3	8		1		2			1		15
Nutrient enrichment		3	8		1		2	2		1		17
Ocean management			6		1		4	2				13
Ordinances and regulations		5	9	1	6	3	4	5		2	1	36
Renewable energy		4	10	1	6	2	3	1		1	1	29
Saltmarshes		5	8		6		3	3		2	1	28
Septic tanks		2	9	1	5	3	2	3		2	1	28
Stormwater		6	10		13	3	4	5		3	1	45
Sustainable building		4	10		7	1	4	3		2	1	32
Wastewater management		2	15	1	11	3	4	4		3	1	44
Water quality	5	2	16	1	12	4	4	5		3	1	53
Water quantity	5	3	16	1	13	4	5	5		3	1	56
Wetlands and waterways protection		6	11		7	2	4	4		3	1	38
Zoning		4	14		12	3	5	5		3	1	47

Decision-makers who indicated there is a low need for additional coastal resource training or information in his or her coastal community.

	Brantley	Bryan	Camden	Charlton	Chatham	Effingham	Glynn	Liberty	Long	McIntosh	Wayne	Total
Beach nourishment	5	3	15	1	4	4		9		3	2	46
Biodiversity	5	2	8		1	2	1	4		1	1	34
Boat / marina management	5	1	6		7	2	1	9			1	32
Buffers	5		5		3						1	14
Coastal community development	5				1	2		5			1	14
Coastal construction	5		1	1	2	2					1	12
Coastal hazards	5		1	1	11	2					1	21
Coastal processes	5		6	1	11	2		1			1	27
Docks and piers	5		2		3	4	1	5			1	21
Economic aspects of land use					2			1			1	4
Environmental aspects of land use					1			2			1	4
Environmental technologies			6		8	1	1	2			1	19
Erosion and sedimentation control					1		1				1	3
GIS (Geographic Information System)	5	1			3		1	6			1	17
Habitat change	5	1	6		4	1	2	2		1	1	23
Habitat restoration and protection	5	1	6		9		2	3		1	1	28
Impacts of human disturbances	5	1	6		2		1	2		1	1	19
Invasive species	5	2	6		4	1	2	3		1	1	25
Land use planning	5		1		1			1			1	9
Low impact development			1		3			2			1	7
Marine debris	5	3	6	1	11	4	2	8		1	1	42
Native plant and animal species	5	2	6		1	2	3	3		1	1	33
Nutrient enrichment	5	2	6	1	11	3	3	3		1	1	36
Ocean management	5	2	1	1	11	4	2	9		1	1	46
Ordinances and regulations			2		2			1			1	6
Renewable energy			1		2	1	2	2			1	9
Saltmarshes	5		2	1	9	4	1	2		1	1	26
Septic tanks		1	2		8		1	6		1	1	20
Stormwater			1		2		1	1			1	6
Sustainable building			1		2			2			1	6
Wastewater management	5		1		3		1	2			1	13
Water quality					1			1			1	3
Water quantity					2			1			1	4
Wetlands and waterways protection	5				1						1	7
Zoning			1		2			1			1	5

How would decision-makers rate the current availability of staff with regard to coastal management within their communities?

	Brantley	Bryan	Camden	Charlton	Chatham	Effingham	Glynn	Liberty	Long	McIntosh	Wayne	Total
Excellent										1		1
Good		2	2	1	13		2	8		1		29
Fair	5	2	1		4	4	2	2	1	1	2	24
Poor			5		9		1	1				16

What do decision-makers feel are the primary inhibiting factors preventing change and advancement in their communities?

	Brantley	Bryan	Camden	Charlton	Chatham	Effingham	Glynn	Liberty	Long	McIntosh	Wayne	Total
Lack of funding	12	1	8	1	6		4	1	1	3		46
Lack of staff / personnel	5	1	2	1	5	1	2	6	1			24
Lack of training / expertise	11	2	7		2	3	4	1	1	2	2	35
Lack of technology		1			2		2		1	1		7
Lack of cooperation among agencies / organizations	5	2	4		6	3	3	1		2		26
There are no inhibiting factors preventing change in my community		1			1							2
Other					1							10

In the past two years, would decision-makers say the overall quality of the environment in their coastal communities has improved, stayed the same, or gotten worse?

	Brantley	Bryan	Camden	Chariton	Chatham	Effingham	Glynn	Liberty	Long	McIntosh	Wayne	Total
Improved			2		9	1	1	2		2	1	18
Stayed the same	5	3	6	1	1	3	1	8	1		1	39
Gotten worse		2	1		7		4			1		15

Who do decision-makers contact for assistance or information on local codes, ordinances and regulations in their coastal communities?

	Brantley	Bryan	Camden	Charlton	Chatham	Effingham	Glynn	Liberty	Long	McIntosh	Wayne	Total
Planning / zoning commission		1	6		3	1		4				15
City / county attorney		1	1		6		1					9
Georgia Department of Natural Resources				1	1	1	1	1				5
City / county manager					9					1		10
City / county officials (non-specific)			1		7		2				1	11
Other miscellaneous responses	6	4	3		3			5		2		23

What are the natural and / or historic needs that decision-makers feel need more attention within their coastal communities?

	Brantley	Bryan	Camden	Charlton	Chatham	Effingham	Glynn	Liberty	Long	McIntosh	Wayne	Total
Preservation / maintenance of historic sites			1	1	1	1	2	2			1	9
Protection / maintenance of water resources		2					1					3
Protection from over-development		1	5		8	1	1			1		17
Miscellaneous other responses		1		1	4			2				8

What are the top three agencies or organizations that decision-makers feel are the recognized authorities for coastal resource information in Georgia? (Part 1.)

	Brantley	Bryan	Camden	Charlton	Chatham	Effingham	Glynn	Liberty	Long	McIntosh	Wayne	Total
City of Savannah					1							1
Coastal Conservancy							1					1
Coastal Georgia Regional Development Center		1	9		7	1	3	7		1		29
Coastal Zone Management		1										1
County government					9							9
Creative Coast Initiative					1							1
Environmental Protection Agency			5	1				1				7
Georgia Coastal Council			5									5
Georgia Coastal Management Program		1										1
Georgia Conservancy					5	1						6
Georgia Department of Community Affairs			1									1
Georgia Department of Forestry			1									1
Georgia Department of Natural Resources		3	15	1	14	2	4	3		2	1	45
Georgia Department of Natural Resources, Coastal Resources Division	5	1	1		9			7				23
Georgia Department of Natural Resources, Coastal Resources Division / Environmental Protection Division					1					1		2
Georgia Department of Natural Resources, Coastal Resources Division, Brunswick		1	1									2
Georgia Department of Natural Resources, Environmental Protection Division	2		7		7	2	1					19
Georgia Land Trust					1							1
Library							1					1
National Oceanic and Atmospheric Administration, Sapelo Island National Estuarine Research Reserve										1		1
Natural Resources Conservation Service						1						1
Nature Conservancy					1							1

ABOUT RESPONSIVE MANAGEMENT

Responsive Management is a nationally recognized public opinion and attitude survey research firm specializing in natural resource and outdoor recreation issues. Its mission is to help natural resource and outdoor recreation agencies and organizations better understand and work with their constituents, customers, and the public.

Utilizing its in-house, full-service, computer-assisted telephone and mail survey center with 45 professional interviewers, Responsive Management has conducted more than 1,000 telephone surveys, mail surveys, personal interviews, and focus groups, as well as numerous marketing and communications plans, need assessments, and program evaluations on natural resource and outdoor recreation issues.

Clients include most of the federal and state natural resource, outdoor recreation, and environmental agencies, and most of the top conservation organizations. Responsive Management also collects attitude and opinion data for many of the nation's top universities, including the University of Southern California, Virginia Tech, Colorado State University, Auburn, Texas Tech, the University of California—Davis, Michigan State University, the University of Florida, North Carolina State University, Penn State, West Virginia University, and others.

Among the wide range of work Responsive Management has completed during the past 20 years are studies on how the general population values natural resources and outdoor recreation, and their opinions on and attitudes toward an array of natural resource-related issues. Responsive Management has conducted dozens of studies of selected groups of outdoor recreationists, including anglers, boaters, hunters, wildlife watchers, birdwatchers, park visitors, historic site visitors, hikers, and campers, as well as selected groups within the general population, such as landowners, farmers, urban and rural residents, women, senior citizens, children, Hispanics, Asians, and African-Americans. Responsive Management has conducted studies on environmental education, endangered species, waterfowl, wetlands, water quality, and the reintroduction of numerous species such as wolves, grizzly bears, the California condor, and the Florida panther.

Responsive Management has conducted research on numerous natural resource ballot initiatives and referenda and helped agencies and organizations find alternative funding and increase their memberships and donations. Responsive Management has conducted major agency and organizational program needs assessments and helped develop more effective programs based upon a solid foundation of fact. Responsive Management has developed Web sites for natural resource organizations, conducted training workshops on the human dimensions of natural resources, and presented numerous studies each year in presentations and as keynote speakers at major natural resource, outdoor recreation, conservation, and environmental conferences and meetings.

Responsive Management has conducted research on public attitudes toward natural resources and outdoor recreation in almost every state in the United States, as well as in Canada, Australia, the United Kingdom, France, Germany, and Japan. Responsive Management routinely conducts surveys in Spanish and has also conducted surveys and focus groups in Chinese, Korean, Japanese, and Vietnamese.

Responsive Management's research has been featured in most of the nation's major media, including CNN, ESPN, *The Washington Times*, *The New York Times*, *Newsweek*, *The Wall Street Journal*, and on the front pages of *The Washington Post* and *USA Today*.

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