

Animal Agriculture in South Carolina: Opinions of Interest Groups and Stakeholders

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Executive Summary

The study is a follow-up to an earlier study of South Carolinians' opinions concerning animal agriculture. In 1998, a telephone survey of a random sample of adult South Carolinians (n=700) revealed that 73% would support additional agriculture in their respective counties, even though some also held concerns about ethical issues surrounding animal agriculture, the need for better zoning, the need for tougher regulations, and issues related to property owners' rights.¹

The current study was designed to be more in-depth than the 1998 telephone survey. In addition, there was a stronger focus on ethical and policy issues. This study reveals a fairly consistent pattern of significant differences of opinion among interest groups surveyed. For instance, members of environmental groups showed the strongest support for preserving and providing support for family farms. Members of environmental groups were most likely to say that small farm operations do a better job of protecting the environment, that corporate farms are putting family farms out of business and that corporate farms should not be allowed in South Carolina. Members of agribusiness groups were most likely to agree or strongly agree that animal agriculture is economically important, that additional animal agriculture is worth it economically, and that meats and meat products are safer than ever. The need for tougher environmental regulations received greatest support from environmental groups and members of sports and wildlife organizations. The need for better zoning was perceived as needed more by people involved in planning and development and those in environmental groups than among the other groups. In addition, groups did not hold high opinions of other groups' (especially policy makers and law makers) knowledge of animal agriculture and ability to formulate well-reasoned policies about animal agriculture in the state. In general, those involved in or associated with agribusiness rated policy and lawmakers the highest. Environmentalists did not even hold their own groups in high regard on these two items.

¹Vander Mey, B. J. et al. 1998. "Adult South Carolinians' opinions about animal agriculture." Pp. 10-25 in M. L. Warner, et al., Eds. *Animal Agriculture in South Carolina: A Fact Book*. Report No. EER 172. Clemson, South Carolina: Clemson University, Department of Agricultural and Applied Economics.

With some variation, results of both studies indicate that social problems (crime, drugs, poor education) seem to be weighing more on the minds of South Carolinians than most environmental problems, in general, or problems specifically associated with animal agriculture.

Taken together, these studies indicate that animal agriculture has a great deal of support in the state. However, they indicate that reasoned public discourse is much needed for issues such as zoning, regulation, property rights, ethical treatment of animals, responsibility for the environment, the preservation and support of family farms, and the changing structure of the state's agriculture. The authors theorize that one reason that policy makers are held in low regard in dealing with these issues is the mixed messages they receive from disparate special interest groups. It is recommended that Clemson University take the lead in organizing public dialogue regarding planned land use to help ease current social strain and contribute to outcomes reasonable to all competing interests.

Introduction

Purpose

This current study is a follow-up to a 1998 survey of South Carolinians' opinions concerning animal agriculture. The previous study (a random telephone survey) found that, while most respondents (73%) were supportive of additional animal agriculture in their county, they had concerns about environmental and ethical problems. A majority of respondents (57.7%) agreed that there should be tougher environmental regulations for animal agriculture, and a substantial minority (39.9%) agreed that animal agriculture raises serious ethical concerns about the treatment of animals. This pointed to the need to explore further the nature of the support of and concerns about animal agriculture in South Carolina.

In response to this need, an in-depth, purposive mail-out survey was conducted between April and September of 1999. This survey was designed to determine the knowledge base, opinions, and normative ethical frameworks concerning animal agriculture by groups that were presumed to have strong opinions on the matter. Various groups of industry participants, environmental organizations, regulators, and policy makers were surveyed. This report focuses on general social and policy-related findings. Another report focuses on ethics and ethical issues. The underlying intent was to ascertain where common ground and/or irreconcilable differences of attitudes and opinions existed.

Sampling Strategy

Because this study focused on the opinions of individuals associated with groups that probably have very strong opinions about animal agriculture, purposive sampling was employed. Groups surveyed included members of the South Carolina Farm Bureau Federation, the Cattleman's Association, South Carolina Beef Board, South Carolina Pork Board, the Society of Farm Managers and Rural Appraisers, the South Carolina General Assembly's House and Senate agricultural committees, the South Carolina Chamber of Commerce, South Carolina Association of Counties, Chairpersons of Soil and Water Conservation Districts, various county government and planning boards and associations, Realtor's Association, the Coastal Conservation League, the Sierra Club, South Carolina Sportsman's Coalition, and the South Carolina Wildlife Federation. With exceptions made for very small groups (e.g., Coastal Conservation League and House and Senate agricultural committees), surveys were sent to approximately 10% of the members of each group.

Other groups were asked but declined to participate.

In order to make comparisons between the groups, the surveys were coded by color into seven categories: (1) Agribusiness, (2) Planning and development, (3) Chamber of Commerce, (4) Coastal Conservation/Sierra Club, (5) Realtors, (6) House and Senate agricultural committees, (7) Sportsman's Coalition/Wildlife Federation. For the purpose of analysis, groups with very small numbers (Realtors and House and Senate agricultural committees) were combined with other groups – realtors with the Chamber of Commerce and the agricultural committees with agribusiness. The grouping was based on similarity of responses. Thus, five final group classifications were used for analysis: (1) Agribusiness, (2) Planning/Development, (3) Commerce, (4) Environmental, (5) Sports/Wildlife.

Counties Represented

Forty-five of South Carolina's 46 Counties (all except Allendale) were represented by respondents to this survey. This survey. Nine counties (Aiken, Anderson, Beaufort, Charleston, Greenville, Lexington, Orangeburg, Richland, Spartanburg) had 20 or more respondents. Ten respondents resided outside of South Carolina – most of these in neighboring counties in Georgia or North Carolina. Since these persons belonged to one of the South Carolina-based organizations that were sampled, they were included in the survey, residence status notwithstanding. Two of these individuals called the Principal Investigator, telling her that currently they resided outside the state, but that they owned property in the state, planned to resume residency in the state, and had remained active with these organizations in the state.

Response Rate

One thousand six hundred and twenty-six surveys were mailed. There was an overall response rate of 41.0%. Of the seven original groups surveyed, sports and wildlife had the highest response rate (55.8%), followed by planning and development (40.3%), environmental (37.0%), agribusiness (35.2%), Commerce (24.9%), House/Senate agricultural committees (22.2%), and realtors (13.8%). The response rate for the final five groups (with the agriculture committees combined with agribusiness and realtors combined with the Chamber of Commerce) was 55.8% for Sports/Wildlife, 40.3% for Planning/Development, 37.0% for Environmental, 33.9% for Agribusiness, and 22.5% for Commerce.

The Respondents

Characteristics of the Sample

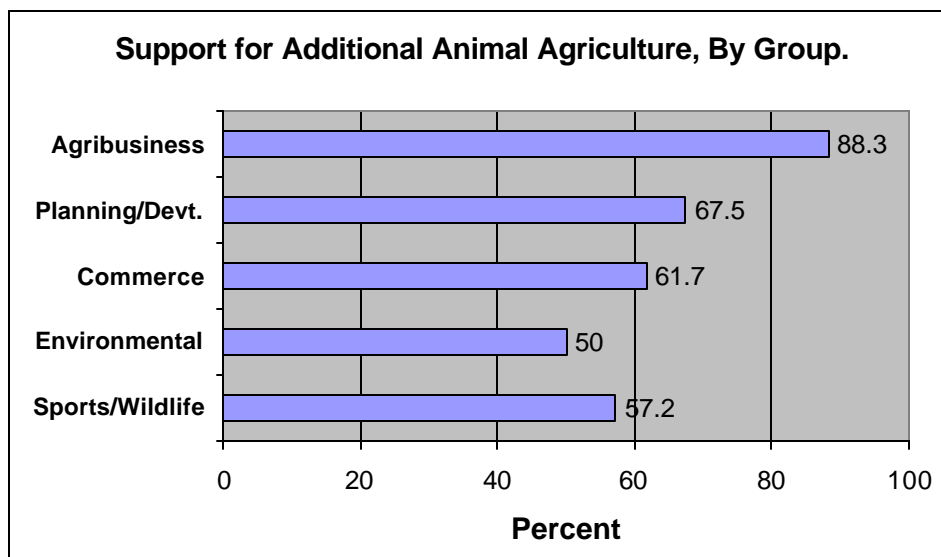
- Slightly over three-fourths of the respondents (76.0%) were male.
- Most respondents (96.6%) were white.
- Most respondents (64.0%) were native South Carolinians.
- Most respondents (84.4%) were married.
- Slightly over one-third of respondents (38.3%) lived on a farm or in a rural non-farm residence.
- Nearly one-third (30.3%) owned or ran a farm or ranch.
- Extremely few respondents (1.7%) said they were vegetarians; only a few more (5.1%) said that there is a vegetarian in the household.
- Age of respondents ranged from 18 to 92, with a mean of 55.5 years.
- Mean estimate of how far respondents live from an animal agriculture operation: 4.7 miles.
- Mean estimate of percent of respondents' income derived from farming: 10.4%.
- Most (80.8%) said that animal agriculture was important to the economy of their county.
- Group category: 49.5% Sports/Wildlife; 18.7% Planning/Development; 18.1% Agribusiness; 10.6% Commerce; and, 3.0% Environmental.

Findings

Support for Additional Animal Agriculture

Although 65.2% of respondents said they were willing to support additional animal agriculture in their county, responses varied significantly according to group (see Figure 1). Agribusiness indicated the greatest proportion of support (88.3%), and the environmental groups indicated the lowest (50.0%). Planning and development (67.5%), commerce (61.7%), and sports and wildlife groups (57.2%) also were willing to support additional animal agriculture.

Figure 1. Support for Additional Animal Agriculture, by Group.



Analysis by residence type revealed, not surprisingly, that respondents residing on farms and in non-farm rural residences were most likely to say that they agree or strongly agree that they would support additional animal agriculture in their respective counties. However, in no residence type did support dip below 50% of the respondents in that category.

In addition, with several of the residence categories, nearly one-third of the respondents indicated that they just didn't know or were unsure about additional support, rather than simply disagreeing or strongly disagreeing. Thus, the fact that animal agriculture is supported is fairly clear. Also, it is reasonable to expect that some uncertainty exists among respondents.

Percent agreeing or strongly agreeing, unsure or don't know, and disagreeing or strongly disagreeing that they would support additional animal agriculture in their respective counties, broken down by residence type, are as follows:

Chart 1. Willingness to Support Additional Animal Agriculture in the County, by Residence Type.

	Agree/Strongly Agree	Don't Know/Not Sure	Disagree/Strongly Disagree
Farm	89.1%	7.6%	3.4%
Rural, non-farm	70.5%	17.6%	13.0%
Small Town (<4000)	53.7%	35.8%	10.5%
Medium Town 4001-10k)	69.0%	16.2%	14.9%
Large Town (10,00-25 K)	54.5%	34.1%	11.3%
Medium City (25K-50K)	57.3%	28.0%	14.7%
Large City (50K+)	51.1%	32.8%	16.0%

Respondents were asked to list reasons for their willingness or unwillingness to support additional animal agriculture. Of those who supported animal agriculture, 33.9% said this was because animal agriculture would help the economy or provide jobs; 18.1% said that animal agriculture was a necessary industry; 10.7% said that they wanted to protect the family farm or the rural way of life; 6.9% said to allow for free enterprise; and 6.1% said that the land was available or that it was suitable to their county. Other responses were that they were willing to support family farms but not corporate farms (5.9%), that they were willing to support additional animal agriculture only if the operations met environmental or odor concerns (5.9%), or that they support additional operations because they believed this would restrict urbanization or curtail growth (5.6%).

Of those who were unwilling to support additional animal agriculture, 29.9% said that this was because it was not appropriate for their county; 24.3% mentioned environmental concerns; 15.0% said they were opposed to corporate or mass farming; 13.1% mentioned odor concerns; and 7.5% cited economic reasons. Other respondents said that they needed more information before they would be willing to support animal agriculture (6.5%), that they had ethical concerns (3.7%), or that they thought public opinion was not favorable toward additional animal agriculture (1.9%).

Enterprises That Respondents Would Support

Respondents were asked to list the top three enterprises or activities they would be willing to support if their county had to vote to bring in the next job creating enterprise. Of those who responded (n=453), half (50.8%) said they would be willing to support manufacturing or industrial enterprises. Many of these respondents stipulated that they would only support clean

(i.e., environmentally safe) industries or light manufacturing. Nearly one-third (30.7%) of the respondents said they would support high tech industries, such as computers or electronics. About one quarter (25.6%) of the respondents said they would support agriculture (generic term) and related industries, and 20.5% listed animal agriculture as one of their top three preferred enterprises. Other enterprises listed included service industries (8.8%), automotive industries (8.8%), building and construction industries (8.8%), distribution/warehousing systems (7.3%), recreation/theme parks (6.6%), forestry/timber industries (6.2%), medical industries (5.5%), textiles (5.5%), and “anything that provides clean, well-paying jobs” (5.1%).

Figure 2 depicts willingness to support the five most frequently mentioned enterprises by group. The number of respondents per group who gave an answer is identified in the parenthesis in the legend for the table. On the chart, the percent of the entire group (not just those responding) is graphed. In this way, we can see what percent of each group was willing to support which enterprises.

As can be seen, manufacturing/industry was most strongly supported by planning and development (48.8%) and commerce (43.7%). About one-third (32.4%) of those in the sports/wildlife groups would support manufacturing, while under one-fourth (23.1%) of those in agribusiness and almost none (1.5%) in environmental groups would.

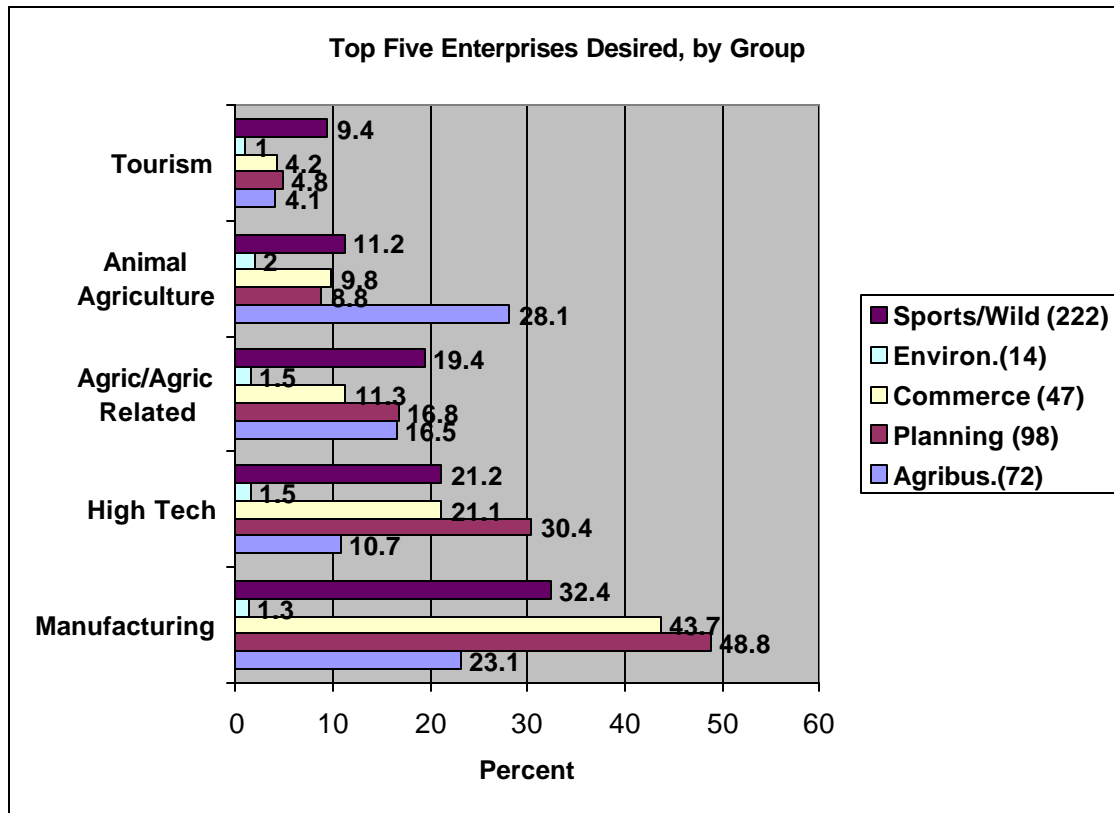
High tech industries had greatest support among planning and development groups (30.4%), followed by sports/wildlife (21.2%) and commerce groups (21.1%), with little support from agribusiness groups (10.7%) and nearly none (1.5%) from environmentalists.

Agriculture and related industries (e.g., processing plants) was most often mentioned by those in the sports/wildlife groups (19.4%). Surprisingly, slightly more, proportionately, of those in the planning and development groups (16.8%) than those in the agribusiness groups (16.5%) listed agriculture (just as a generic term) or agriculture-related industries. Again, very few (1.5%) of the environmentalists mentioned this category of industry.

Animal agriculture, not surprisingly, was listed as a category by itself. And, also not surprisingly, proportionately more individuals in the agribusiness group (28.1%) specifically mentioned animal agriculture as one the top three enterprises they would support. Animal agriculture was mentioned by 11.2% of those in sports/wildlife groups, 9.8% of those in the commerce groups, 8.8% of those in the planning/development groups, and by only 2. % of those in the environmental groups.

Tourism was most frequently (9.4%) mentioned by members of sports/wildlife groups. As Figure 2 depicts, tourism was not a high priority enterprise among the other groups.

Figure 2. Enterprises that Respondents are Willing to Support, by Group



When asked why animal agriculture was or was not on their list of the top three job creating enterprises they would be willing to support, responses were somewhat similar to the reasons for overall willingness to support additional animal agriculture. Of those who listed animal agriculture, 21.1% (n=114) said they did so because animal agriculture is a necessary industry; 19.3% said the area was suitable; 17.5% said that they thought it would create jobs or boost the economy; 17.5% said to maintain a rural way of life; and 10.5% said to create economic balance/diversity. Other reasons included were “to help farmers” (13.2%), to keep food in local economy (7.0%) and because animal agriculture can be a clean and safe enterprise (4.4%).

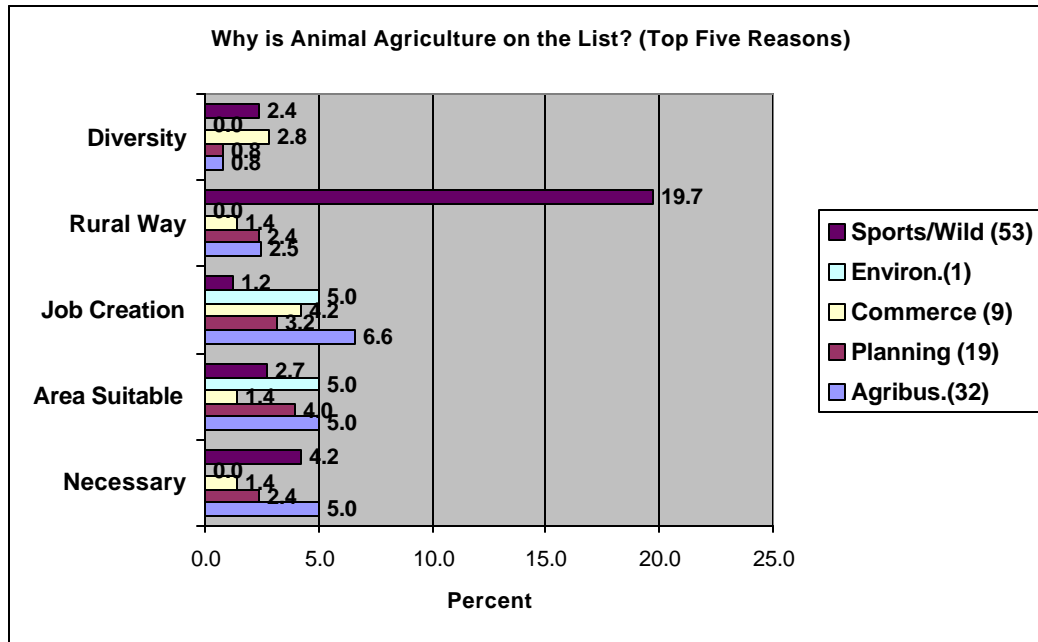
A breakdown, by group, of the most frequently given reasons for listing animal agriculture appears in Figure 3. The number of respondents per group who gave an answer is identified in the parenthesis in the legend for the table. On the chart, the percent of the entire group (not just those responding) is graphed. Thus, the relative proportion of people in each group giving an answer is depicted.

As can be seen, when shown in this comparative, proportionate fashion, the reason that shows glaring differences among the groups is “to maintain a rural lifestyle.” On this score, the sports/wildlife respondents (19.7%) were overwhelmingly most likely to give this response. More respondents from agribusiness (5.%) , the environmental groups (5.%) and

planning and development groups (4.%) had put animal agriculture on the list because the area was suitable than did the sports/wildlife groups (2.7%) and the commerce groups (1.4%).

While no group gave overwhelming endorsement to including animal agriculture as an acceptable new enterprise, proportionately more respondents from agribusiness (6.6%) and the environmental groups (5.5) did so in comparison to the commerce groups (4.2%), the planning/development groups (3.2%), or the sports/wildlife groups (1.2%). Interestingly, while no respondents from the environmental groups thought animal agriculture is a necessary additional enterprise, it got few responses from agribusiness (6.6%) along these lines as well.

Figure 3. Reasons Animal Agriculture is on the List

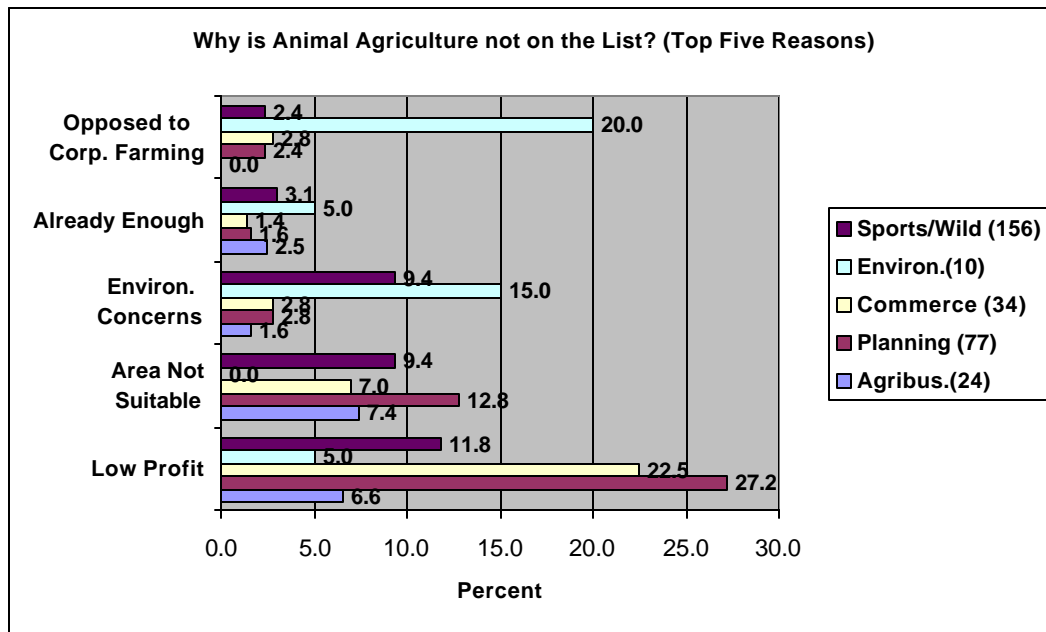


Of those who did not list animal agriculture as one of their top three preferred industries, 37.7% (n=260) said this was because it creates too few jobs or has low profits; 23.5 % said that the area was not suitable for it; 18.8% said that they had environmental concerns; 6.5% said there was already enough animal agriculture; and another 6.5% said it was opposed to corporate farming. Other responses included statements to the effect that animal agriculture causes odor problems (6.2%), that more information about animal agriculture would be needed in order to list it (5.0%), that it just isn't a top priority (5.0%), and it just isn't needed (3.5%).

Figure 4 provides a breakdown, by group, of the most frequently given reasons for not listing animal agriculture as one of the top three new enterprises that respondents would support. The number of respondents per group who gave an answer is identified in the parenthesis in the legend for the table. On the chart, the percent of the entire group (not just those responding) is graphed. As with Figure 3, then, the relative proportion of people in each group giving an answer is depicted.

Proportionately more respondents from planning/development groups (12.8%) and sports/wildlife groups (9.4%) said that the area is not suited for additional animal agriculture, compared to 7.4% of those in agribusiness, 7.0% of those in commerce, and none of the environmentalists. Planning/development groups (27.2%) and commerce groups (22.5%) were proportionately far more likely to say that animal agriculture was not included as a priority because it brings low profits and creates few jobs. Respondents from environmental groups (15%) were most likely to say that animal agriculture was not a top three choice for new enterprises because of environmental concerns, followed by sports/wildlife groups (9.4%) planning/development groups (8.8%), commerce groups (2.8%) and respondents from agribusiness groups (1.6%). Across the board, proportionately few respondents offered either the idea that there already was enough animal agriculture or that they were opposed to corporate farming. While a few in each group did this (except for agribusiness and the corporate farm statement), it is safe to say that these reasons are not pressing in the minds of the respondents in this study.

Figure 4. Reasons Why Animal Agriculture is Not on the List



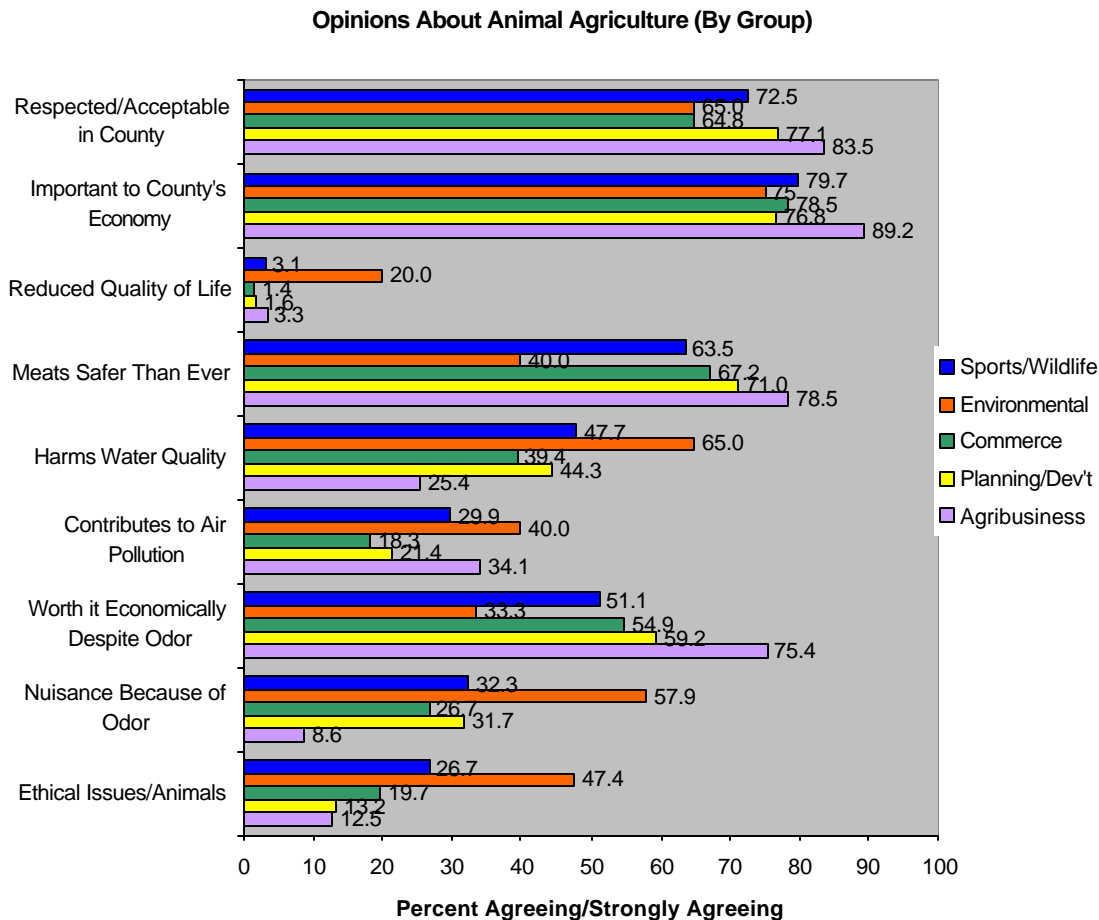
General Opinions on Animal Agriculture

Respondents were asked several questions regarding their general opinions and concerns about animal agriculture (see list below). They were asked whether they strongly disagree, disagree, don't know or are not sure, agree, or strongly agree with each statement. For most statements, responses varied significantly according to group classification. Figure 5 depicts the percentage of each group that said they agree or strongly agree.

Statements given to respondents:

- “In my county, animal agriculture is a respected and acceptable business and way of life.”
- “Animal agriculture is important to the economy in this county.”
- “Animal agriculture has reduced the quality of life for me.”
- “Today’s meats and meat products are safer than they have ever been.”
- “Farm animal wastes significantly harm water quality.”
- “Animal agriculture contributes to air pollution.”
- “Given the potential for animal operations to cause odors, do you think having these operations in your county is worth it economically?”
- “Animal agriculture is a nuisance because of the odor.”
- “Animal agriculture raises serious ethical questions about the treatment of animals.”
- “Animal agriculture has negative effects on property values.”

Figure 5. General Opinions on Animal Agriculture.



Only statements showing significant differences are graphed. p# .05.

Summary of Concerns About Animal Agriculture

- Overall, respondents were supportive of additional animal agriculture, though some groups were more supportive than others. Those connected to agribusiness were most supportive, while those involved in environmental organizations were least supportive. Nevertheless, respondents had several concerns. Opinions about these concerns varied by group, and in some areas there was more agreement than in others.

Areas of General Agreement

- A large majority of each group agreed that animal agriculture was respected and acceptable in their county and that it is important to the county's economy.
- Very few respondents of any group agreed that animal agriculture had reduced their quality of life, though a larger percent of the environmental group (20%) agreed than the others.
- A substantial minority (40%) of the environmental group agreed that animal agriculture contributes to air pollution, but other groups were less inclined to agree. In contrast to the respondents from the environmental groups, those from commerce groups (18.3%) were less likely to rank this item as something to which they would agree or strongly agree, followed by planning/development groups (21.4%), sports/wildlife respondents (29.9%) and then those in agribusiness (34.1%).

Areas of Disagreement

- Large majorities of the other groups agreed with the statement that "Today's meats and meat products are safer than they ever have been," while only 40% of the environmental group agreed. Agribusiness respondents (78.5%) were most likely to agree or strongly agree that today's meats are safer than ever, followed by respondents from planning/development (71.%), and then by respondents from commerce groups (67.2%) and those in the sports/wildlife groups (63.5%). Thus, on this item, there is a divide between the environmentalists and the other respondents, and especially between the environmentalists and respondents from agribusiness groups.
- 65% of the environmental group agreed that animal waste significantly harms water quality, compared with only 25.4% of agribusiness. Other groups fell somewhere in between. Nearly half of the sports/wildlife respondents (47.7%) agreed or strongly agreed with this statement, followed by planning/development respondents (44.3%) and then by commerce respondents (39.4%)
- Very few (8.6%) of the respondents in the agribusiness group agreed that animal agriculture was a nuisance because of the odor, compared with a majority (57.9%) of

the environmental group. About one-third of the sports/wildlife respondents (32.3%) and planning/development (31.7%) strongly agreed or agreed that animal agriculture causes problems with odor. Only slightly over one-fourth of the respondents from commerce (26.7%) ranked the statement in this way.

- A large majority of agribusiness (75.4%) agreed that animal agriculture is worth it economically in spite of the odor, while only a third of the environmental group agreed. A slight majority of each of the other groups agreed to this.
 - Proportionately fewer environmental groups strongly agreed or agreed that animal agriculture was worth it despite the odor (33.3%) than agreed or strongly agreed that animal agriculture is a nuisance because of odor (57.9%). While the differential in the scoring of these two items is greatest among the agribusiness group (8.6% saying animal agriculture is a nuisance because of odor, yet 75.4% agreeing or strongly agreeing that it is worth it despite the odor), the chart below shows that there is room to be skeptical that just because odor is associated with animal agriculture, odor alone would dissuade people from respecting it for its economic value.
 - Chart 2. Groups' Opinions About Odor and The Relative Value of Animal Agriculture.

	Odor Nuisance	Worth it \$\$ Anyway	Differential
Agribusiness	8.6%	75.4%	+66.8
Planning/Development	31.7%	59.2%	+27.5
Commerce	26.7%	54.9%	+28.2
Environmental	57.9%	33.3%	-24.6
Sports/Wildlife	32.3%	51.1%	+18.8

- Almost half (47.4%) of the environmentalists agreed that animal agriculture raises serious ethical questions about the treatment of animals, compared to only about a fourth (26.7%) of the sports and wildlife group and even lesser percentages of the others.

Ethical and Safety Concerns

Though a minority, some respondents had concerns about the safety of meats and the ethical treatment of animals. Overall, 21.7% (n=188) of respondents said they avoided some meats for safety reasons, while 18.2% (n=107) said they avoided some meats for ethical reasons. Agribusiness had the smallest percentage of meat avoidance, and the environmental group had the largest. Specifically, almost two-thirds (64.7%) of the environmental group said they avoided some meats for safety reasons.

Chart 3 depicts the proportions of respondents from each group who said that they avoided some meats for ethical reasons and the proportion from each group who avoid meats

for safety reasons. As can be seen, with only one exception (Sports/Wildlife) respondents tended to be more inclined to avoid meats for safety reasons rather than for ethical reasons.

- Chart 3. Proportions of Each Group Who Avoid Meats for Safety or Ethical Reasons.

	Avoid Meats for Ethical Reasons	Avoid Meats for Safety Reasons
Agribusiness	1.6%	5.5%
Planning/Development	9.6%	15.2%
Commerce	16.9%	22.5%
Environmental	30%	55%
Sports/Wildlife	22.7%	18.8%

Respondents who avoided meats for ethical or safety reasons were asked to list which meats or meat products they avoid. Respondents who said they avoid meats for safety reasons reported a wide variety of meats that they avoid. Foremost were chicken and poultry (15.3%), followed by packaged or processed meats (12.7%). Other responses were ground beef (11.9%), hot dogs (10.2%), beef (10.2%), and hormone/chemical injected meats (7.6%).

Veal was the meat most widely avoided for ethical reasons. Of the respondents who reported avoiding some meats for ethical reasons, 60.7% said they avoided veal. No other meat was so widely avoided, but respondents reported avoiding a wide variety of other meats, such as lamb (13.1%), pork (13.1%), tuna (9.3%), chicken and poultry (8.4%), swordfish (7.5%), and beef (6.5%).

Responsibility for Ethical Issues Related to Animals

When asked to write in who, if anyone, should be held responsible for ethical issues surrounding the treatment of animals, 393 respondents offered at least one suggestion. Slightly over one-third (36.1%) said the government should take responsibility, while about one-fourth (26.0%) said that farmers and/or farmers' organizations should take responsibility. Roughly one-fifth (20.4%) said that everyone or citizens should take responsibility for these concerns. Other responses included "no one" (8.7%), the operator/owner (7.1%), consumers (5.6%), and the Department of Agriculture (3.6%). A few others indicated that schools (1.8%) should be responsible for these issues, and a very small minority (0.3%) said that the market should handle this. Interestingly, no one indicated that animal rights groups should take on this responsibility.

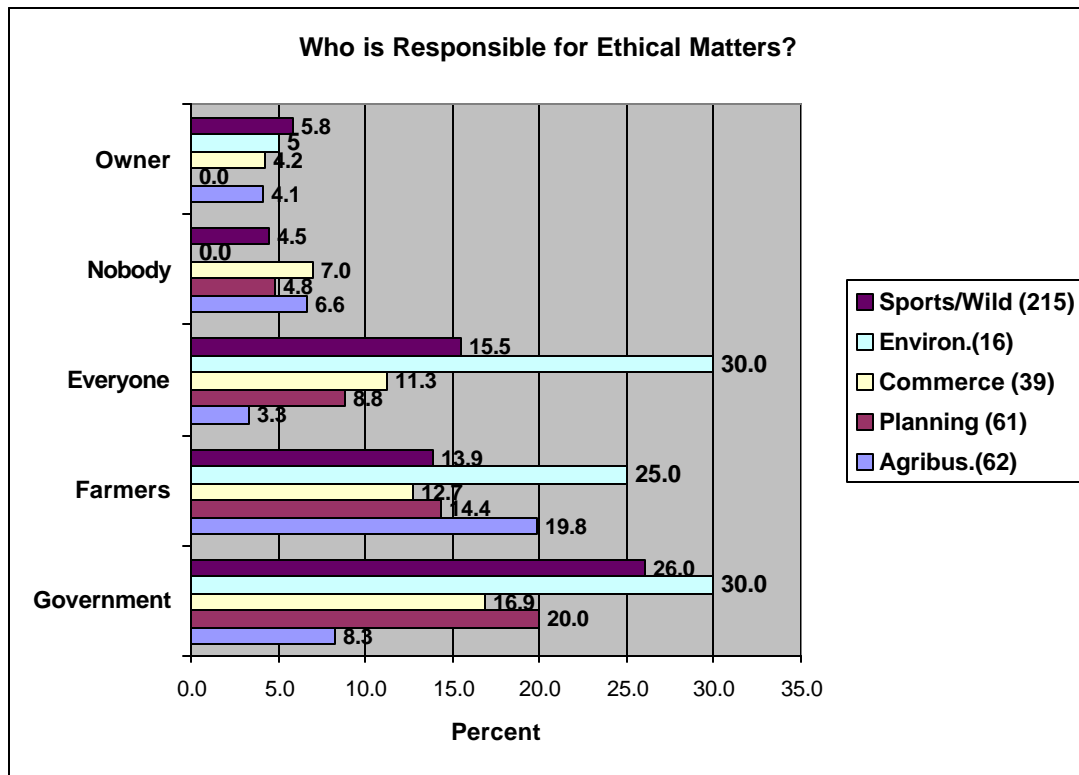
Figure 6 displays the top five responses, by group, that respondents gave to the question of who if anyone should be responsible for ethical issues associated with animal agriculture. As can be seen, agribusiness (8.3%) was proportionately least likely to say that the government should be responsible, followed by commerce groups (16.9%), planning/development (20%), sports/wildlife respondents (26.%) and then by environmental group members (30%). One-fourth (25%) of the respondents from environmental groups said that farmers should be held responsible for ethical issues, followed closely by respondents from agribusiness (19.8%), and then by planning/development groups (14.4%), sports/wildlife

respondents (13.9%), and last by respondents from commerce (12.7%). Right at one-third (30%) of the respondents from environmental groups thought that everyone should be held responsible for ethical issues associated with animal agriculture. About half that proportion of respondents from sports/wildlife groups (15.5%) gave this response. Slightly over one-tenth (11.3%) of respondents from commerce said that everyone is responsible, and slight under one-tenth (8.8%) of respondents from planning/development gave this response. Respondents from agribusiness (3.3%) were least likely to list this answer.

As previously indicated, less than ten percent (8.7%) of the respondents indicated that no one should be held responsible for the ethical issues associated with animal agriculture. No respondents from environmental groups wrote this in as an answer. Only 4.5% of the respondents from sports/wildlife groups gave this response. The response was only nominally present among respondents from planning and development (4.8%), agribusiness (6.6%), and commerce (7%) respondents.

Even fewer (7.1%) of the respondents indicated that owners should be held responsible for ethical issues associated with animal agriculture. While planning/development respondents did not list the owner as responsible, at the same time the other groups show extremely infrequent listing of this as well.

Figure 6. Who is Responsible for Ethical Concerns Related to the Treatment of Animals?



The Large, Small, and Family of It

Respondents were asked a variety of questions about their opinions toward family (or small) farms versus corporate (or large) farms (see list below).

Statements given to respondents were:

- “Government policies should focus on making small animal operations more efficient.”
- “Corporate farms are driving family farms out of business.”
- “Corporate animal operations should not be permitted to operate in South Carolina.”
- “It is important that family farms be preserved.”
- “Large animal operations get too much assistance from government programs.”
- “Family-run operations should be supported even if it means higher food prices.”
- “Farmers with small livestock operations do a much better job of protecting the environment than do farmers with large livestock operations or corporate farms.”

Summary of Opinions on Corporate and Family Farms

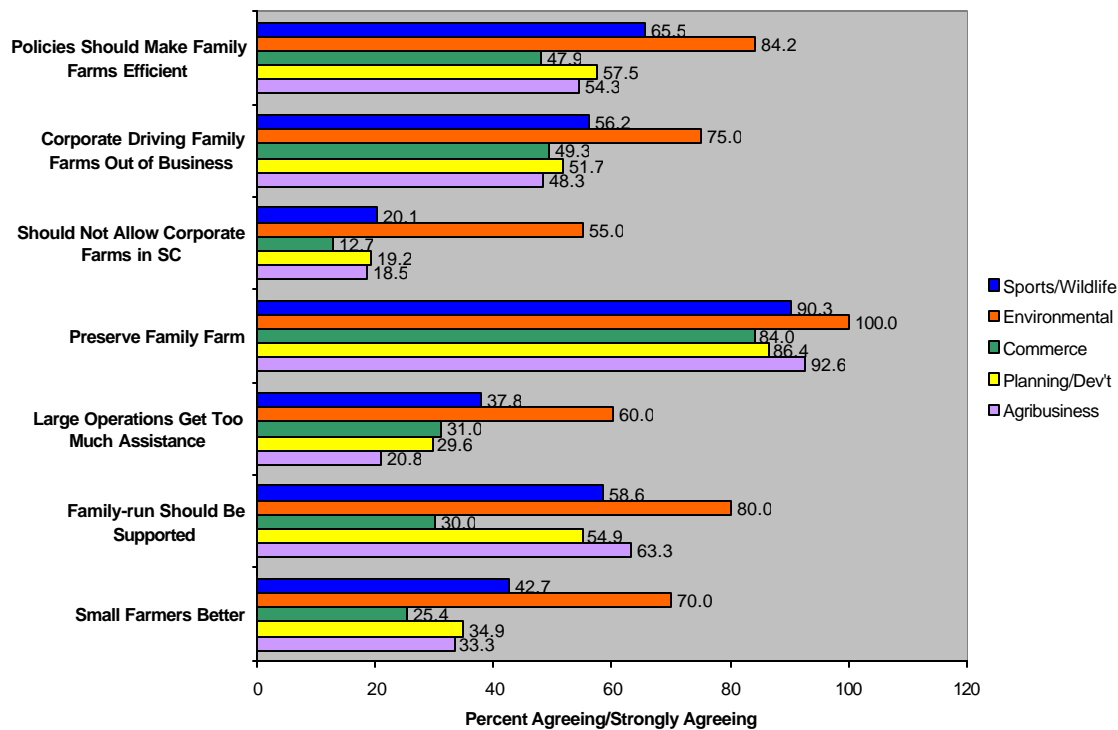
- Though there were some big differences concerning related issues, respondents of each group expressed support for the family farm. Well over two-thirds of respondents agreed that it is important that the family farm be preserved. There seemed to be more disagreement, however, on how (and even why) this was to be done.
- Few respondents (19.9%) thought corporate farms should be banned from South Carolina, although 55% of the environmental group agreed.
- Few respondents (33.1%) thought large operations get too much assistance from the government, though 60% of the environmental group agreed.
- A majority or near majority of each group agreed that corporate farms are driving family farms out of business.
- A majority of each group except commerce (30%) agreed that family-run operations should be supported even if it means higher food prices.
- The environmental group was most supportive of small or family farms and least positive about large or corporate farms. Over two-thirds (70%) of this group (compared with minorities within the other groups) agreed that small farms do a better job of protecting the environment. This belief likely accounts for their general support for family farming.

Slightly over half (56.3%) of the respondents indicated that family farming should be supported even if it meant higher food prices. When asked how much more they were willing to pay for food in an effort to preserve family farms, one-fourth (24.4%) of those responding (n=636) said that they weren't willing to pay more than they already are, while another fourth (25.6%) said they would pay an additional one to nine percent and one-third (30.7%) responding said that they would pay between 10 and 15 percent more. About one-tenth of those responding to this item said that they would pay up to 25% more, and the remainder indicated that they would pay 25-40% more (3.5%), 41-50% more (2.0%), 51-75% more (.5%), 76-100% more (1.1%), or more than twice as much (1.3%).

Figure 7 provides a breakdown of response patterns by group for all items on which there were significant differences between groups. Based on these data, the environmental groups can be described as either biased toward family farms or biased against corporate farms, or both. Proportionately more respondents from environmental groups agreed or strongly agreed that the family farm should be preserved (100%), that the family farm should be preserved even if it means higher food prices (80%), that large operations get too much government assistance (60%), that corporate farms are running family farms out of business, that small farm operators do a better job of protecting the environment than do larger or corporate farms (70%), and that corporate farms should not be allowed in South Carolina (55%).

Figure 7. Opinions on Family and Corporate Farming.

Opinions on Corporate vs. Family Farming (By Group)



Only statements showing significant differences are graphed. p# .05.

Respondents were asked to write down what comes to mind when they hear the term “family farm.” Most (572) respondents wrote down at least one word or phrase. Just under one-third used the term “family owned” or “family operated” (31.8%) and described a family farm as either small or medium sized (30.1%). Other descriptions of family farms included “strong moral character” (15.0%), “passed generation to generation” (12.4%), a “tradition/way of life” (8.9%), and/or “environmentally friendly” (6.3%). A few respondents (5.8%) wrote that the term evokes bucolic images. Other descriptions included “individually owned/operated” (5.1%), “unprofitable” (4.2%), and “well-run/efficient” (1.9%).

Of the 601 respondents describing what comes to mind when they hear the term “corporate farm,” most said “big/mass production” (62.9%). Some described corporate farms as “profit-driven” (14.8%), while others used terms such as “hog farm” (8.5%), “absentee ownership” (6.8%), “environmentally hazardous” (6.3%), “confined/mistreated animals” (5.2%), “efficient or well-managed” (4.3%), and/or operations that “put small farms out of business” (4.2%). A few said that the term made them think of something that was government subsidized (3.2%), and a few said that the term made them think of poultry (4.2%). Other images included “technology/equipment” (3.2%) and “North Carolina” (2.0%).

Does Anyone Know Anything?

Respondents were asked about their perceptions of various groups' knowledge or competency concerning animal agriculture (see list below.) Figure 8 shows the responses of each group of respondents.

Statements given to respondents:

- “Generally speaking, environmental groups know enough about animal agriculture that they can effectively propose well-reasoned policies regarding the regulation of animal operations.”
- “Environmentalists exaggerate problems associated with animal agriculture.”
- “When it comes to regulating animal operations, most lawmakers know enough about animal agriculture to formulate well-reasoned policy about it.”
- “Policy makers in this state have formulated laws that reasonably regulate animal agriculture.”
- “Policy makers in this state are knowledgeable about animal agriculture.”
- “The United States EPA is doing a good job of regulating animal agriculture operations in this state.”
- “The South Carolina Department of Agriculture is doing a good job of regulating animal operations.”
- “South Carolina’s DHEC (Department of Health and Environmental Control) is doing a good job of regulating animal agricultural operations.”

Summary Opinions on Knowledge of Animal Agriculture, Policy-Making Ability

- Overall, respondents seemed to have very little confidence in the ability of anyone – lawmakers, environmentalists, or government agencies – to make well-informed policies concerning animal agriculture.
- Few respondents of any group agreed that environmentalists are knowledgeable enough to propose well-reasoned policies concerning animal agriculture. Only 45% of the environmental group agreed that environmentalists were knowledgeable enough to do this. Moreover, a large majority of most groups agreed that environmentalists exaggerate the problems associated with animal agriculture. (However, only 50% of the Sports and Wildlife group agreed, and only 20% of the environmental group agreed with this statement.)
- Very few respondents of any group agreed that lawmakers or policy makers are knowledgeable enough about animal agriculture to form well-reasoned policy about it.
- There was little confidence in the current regulation by the EPA, the South Carolina Department of Agriculture, or DHEC. On these matters, however, agribusiness was more supportive of the current government regulation than other groups were.

Opinions on Knowledge of Animal Agriculture (By Group)

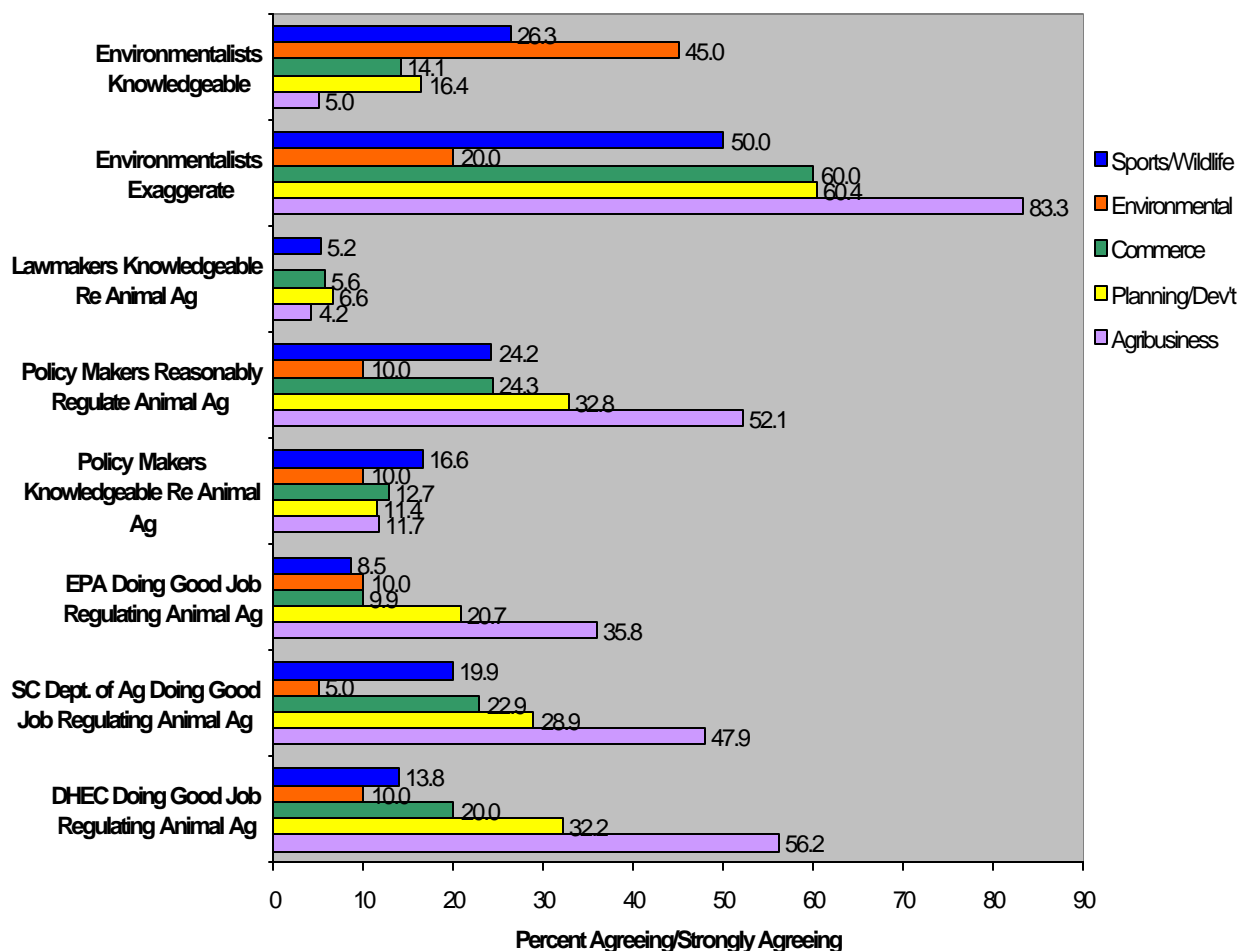


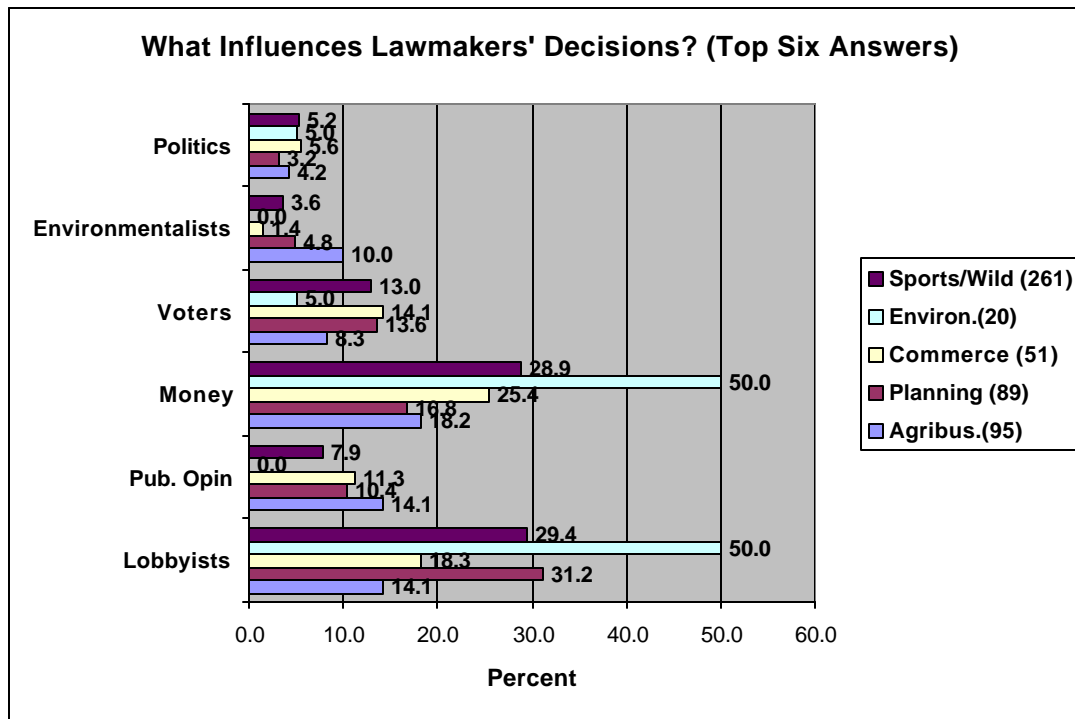
Figure 8. Opinions about Others' Knowledge. Only statements showing significant differences are graphed. p#05.

Respondents were asked to tell what they think influences lawmakers' decisions concerning animal operations. Approximately one-third 34.1% (n=516) of respondents said that lobbyists or PACs were the biggest influences. Other perceived influences were money or campaign contributions (32.2%), voters (17.1%), and public opinion (12.4%). These responses are further indicative of the distrust of lawmakers (or anyone) to make informed decisions on animal operations. Receiving notice from less than 10% of the respondents were influences such as mass media (5%), farmers/animal operators (3.9%), personal beliefs/experiences (3.1%) and personal friends/colleagues (2.3%). Even fewer respondents indicated reliable information (1.7%) as a factor influencing lawmakers' decisions. And, less than 1% of the

respondents said that concerns about public safety or general welfare of the people influenced decision makers.

Figure 9 shows, by group, the rate at which each group mentioned each of the top six responses to what influences law makers. The number in the parenthesis indicates how many individuals in each group responded to this question. The percent figures give the percent of the entire group for each response displayed. As can be seen, proportionately more respondents from environmental groups (50%) listed lobbyists or PACs (Political Action Committees) than did respondents from planning/development (31.2%), sports/wildlife groups (29.4%), commerce (18.3%) or agribusiness (14.1%). Likewise, proportionately more respondents from environmental groups (50%) said that money is what influences lawmakers decisions. They were followed by sports/wildlife respondents (28.9%), commerce group respondents (25.4%), agribusiness (18.2%) and then by planning/development respondents (16.8%). While voters as a source of influence was not high on any group's list, 14.1% of respondents from commerce, 13.6% from planning/development groups, 13% of the sports/wildlife respondents, 8.3% of the agribusiness respondents, and 5% of respondents from environmental groups thought that voters influence lawmakers' decisions. As can be seen in Figure 9, while environmental group members did not cite either public opinion or environmentalists as influential in lawmakers' decisions, small percentages of respondents from the other groups did. And, while "politics" as an influence in decision making among lawmakers was not frequently cited by any group, a little recognition was given to it as a force of influence. Overall, though, the respondents in this study put far more weight toward money and special interest groups than on the general welfare of the people or reliable information as influencing lawmakers' decision making.

Figure 9. Perceived Influences on Lawmakers' Decisions on Animal Agriculture.



Opinions About Policies

Respondents were asked various questions about their opinions on policies toward animal agriculture. Statements given to respondents were:

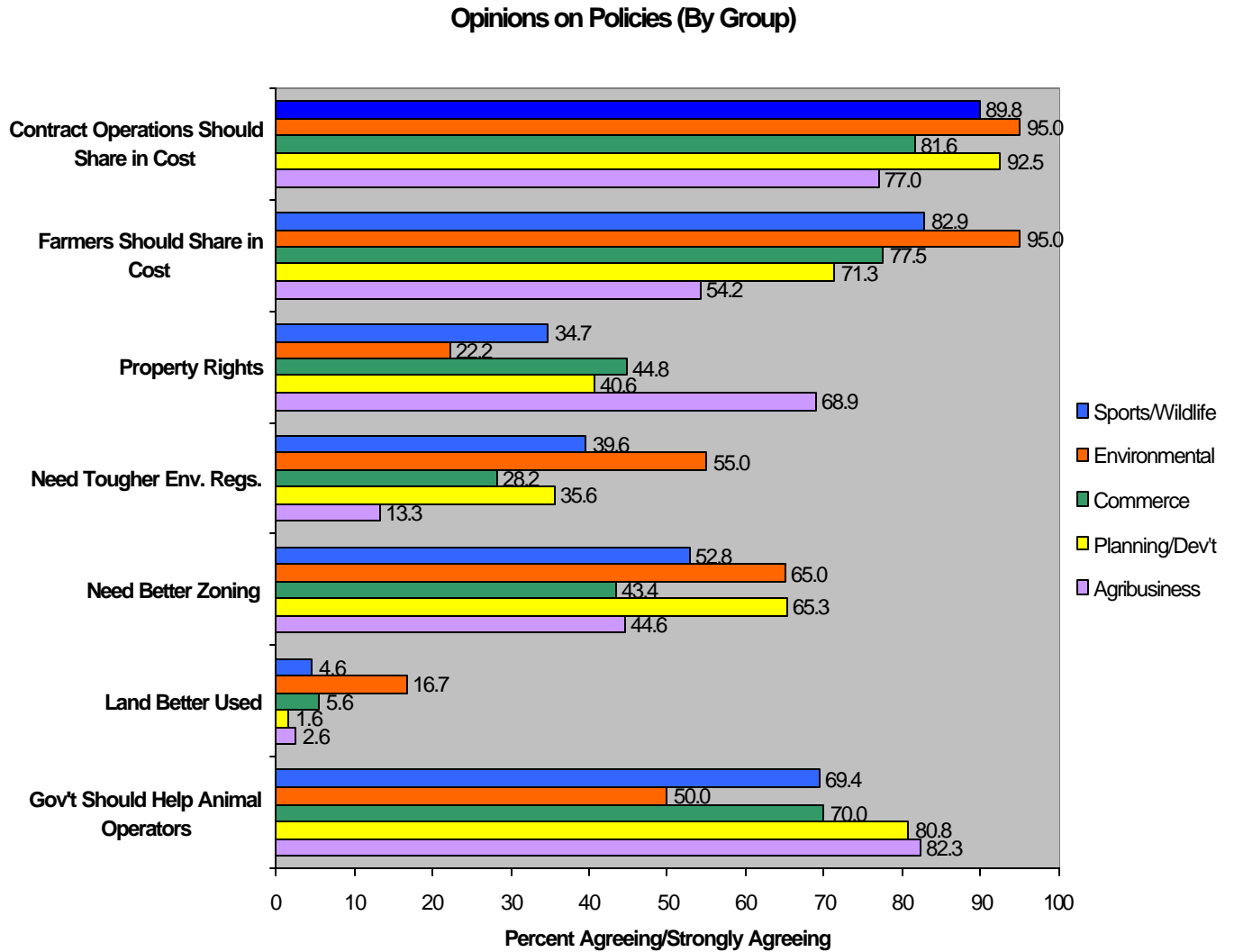
- “Contract operations (poultry and hog processors who contract with growers to produce animals for their processing plants) should share in the cost of cleaning up water contaminated by animal waste.”
- “Farmers should share in the cost of cleaning up water contaminated by animal waste.”
- “Property owners have the right to do with their property what they wish.”
- “We need tougher environmental regulations around animal operations.”
- “We need better zoning to separate animal operations from residential, business, and other areas.”
- “Land used for animal operations could be used for better purposes, such as residential, manufacturing, or business.”
- “Government policies should help animal operators because we need a reliable food supply here in the United States.”

Summary of Opinions on Policies

Figure 10 provides a breakdown by group of responses to questions about policies when there were significant differences found. Below is a quick summary of the findings on these items:

- Though there were significant (but small) differences among the groups, there was widespread agreement that contract operations should share in the cost of cleaning up water contaminated by animal waste. Over three-fourths of each group agreed.
- There also was widespread consensus concerning whether land used for animal operations could be used for better purposes. While a larger portion (16.7%) of the environmental group agreed than the others, there was still overwhelming disagreement to this statement among all groups.
- There also was agreement that farmers should share in the cost of cleaning up water contaminated by animal waste. However, in comparison with the other groups, much fewer (54.2%) of the agriculture group agreed.
- Likewise, there was general agreement that government policies should help animal operators. Only 50% of the environmental group agreed, however. This is somewhat interesting since when couched in terms of government helping family farms, the group's response pattern was quite different.
 - Concerning property rights, zoning, and the need for tougher environmental regulations, opinions between the groups sharply contrasted.
 - Over two-thirds (68.9%) of the agribusiness group agreed that property owners have a right to do with their property as they wish, while only 22.2% of the environmental group agreed. The other groups fell somewhere in between (34.7% of the sports/wildlife group, 44.8% among the commerce group, and 40.6% planning and development group).
 - A majority (55.0%) of the environmental group agreed that tougher environmental regulations are needed around animal operations, while only 13.3 percent of the agribusiness group agreed. Again, the other groups fell in between (39.6% of the sports/wildlife group, 28.2% of the commerce group, and 35.6% of the planning and development group).
 - Nearly two-thirds and of the environmental (65.0%) and the planning group (65.3%) and a majority (52.8%) of the sports and wildlife group agreed that better zoning is needed to separate animal operations from other activities. However, fewer respondents from the agribusiness (44.6%) and commerce groups (43.4%) agreed with this sentiment.

Figure 10. Opinions on Policies, By Group.



Only statements showing significant differences are graphed. p# .05.

Respondents were asked to discuss, in open-ended fashion, under what if any circumstances zoning or environmental regulations are justified. While the sentiment that individuals' rights to use their property as they see fit was well represented, one person said that we have to operate with the concept of "the greatest good for the greatest number of people." Several wrote essays to the effect that we have to give up some rights or compromise when this will result in more benefit to a community. Several respondents thought that encroachment from urban and exurban dwellers was creating a need for zoning. Several

respondents said that zoning and regulations are mechanisms we can use to protect the quality of life, protect farming as a way of life, protect the environment, and protect property values. Only one person declared zoning to be “communistic” and elaborated by stating, “*pin heads make the rules. I do not want pinheads telling me how to use my land. Government does not know how to regulate its property, so why should they regulate my property?*”

In open-ended commentary at the end of the survey and at the open-ended portion of the community concerns listing, several respondents indicated that sprawl (residential) is a serious problem in South Carolina. Several individuals commented that while leaders in the state have been calling this growth, it really is creating problems. Respondents indicated that farmlands need to be protected from sprawl, and that if a farm has been operating it should be allowed to continue operating (even if ownership changes hands) regardless of what is developed close to it. Several also said that while they are not opposed to family farms and farms in general, they are opposed to large and corporate operations. Several indicated a need to develop some type of zoning to take care of these various points of strain.

Community Concerns

Respondents were asked to rank how serious they thought an array of community concerns were for their community and its future. Each of these concerns was ranked as very serious, serious, don't know/not sure, somewhat serious, or not serious at all. Figure 11 shows the percent of respondents who answered “very serious” or “somewhat serious” for each concern. The most serious problems, according to the respondents, were crime (81.8%), drugs (80.8%), litter (66.1%), high taxes (57.4%), and teen pregnancy (55.7%). Many respondents also were concerned about population growth (50.7%), water quality (48.8%), residential sprawl (48.4%), and air pollution (46.9%). Based on these results, which are similar to the findings in the 1998 study, it seems that social problems are weighing more heavily on South Carolinians' minds than are problems associated with animal agriculture. However, it is noted that the groups polled in the current study seem to be relating a great deal of concern about water quality and air pollution.

Summary of Groups' Opinions on Community Problems

- The sharpest disagreements were over population growth, residential sprawl, and soil contamination.
- The environmental group (and, to a lesser extent, the sports/wildlife group) tended to put more emphasis on environmental and environmentally related issues than the other groups did.
- Concerning population growth, water quality, litter, and zoning, the opinions of the planning/development group seemed largely the same as those of the environmental and sports/wildlife group.

- Agribusiness seemed to agree with the environmental and sports/wildlife group about the seriousness of residential sprawl.

Figure 11. Community Concerns, Seen as Serious or Very Serious.

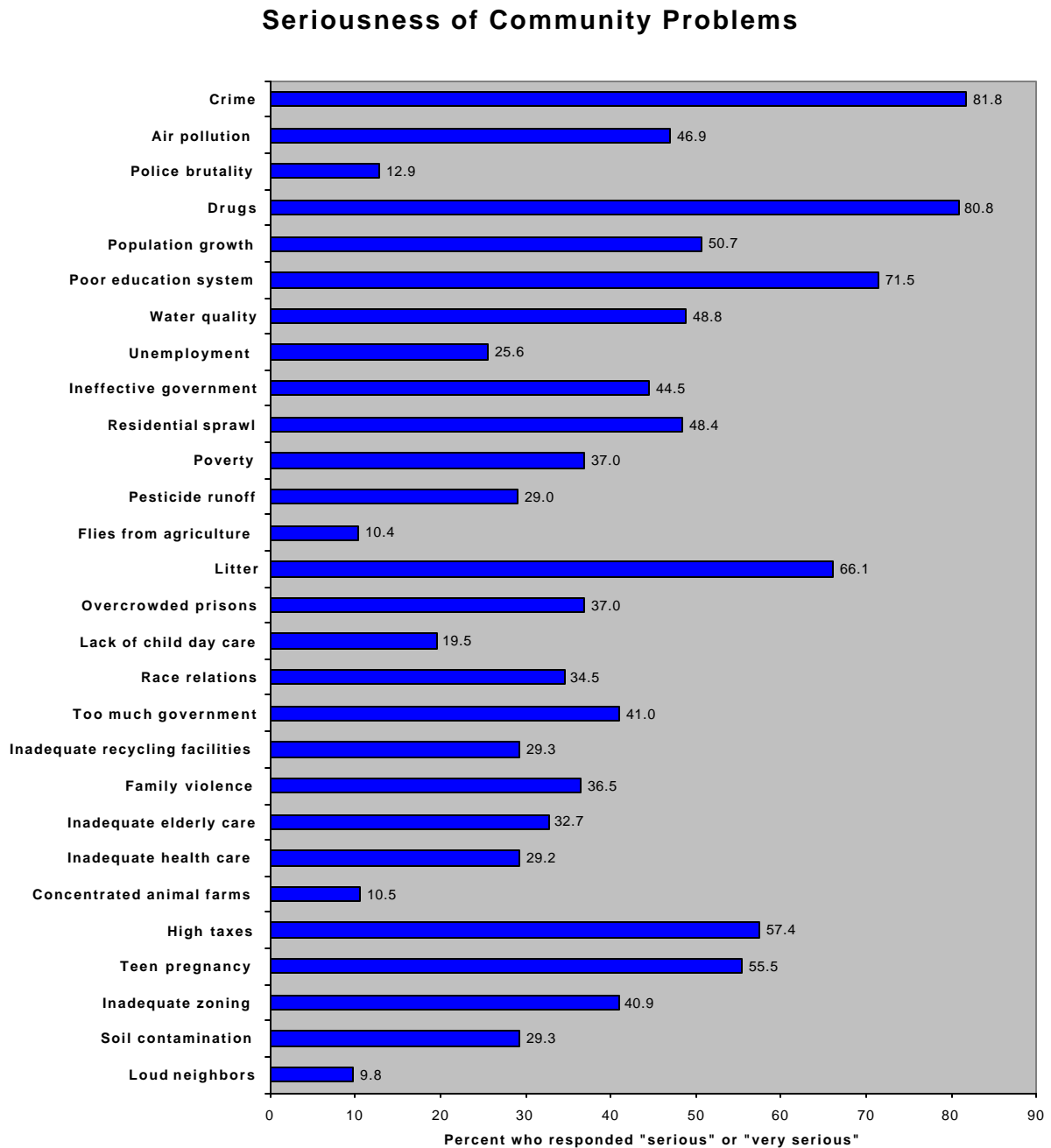
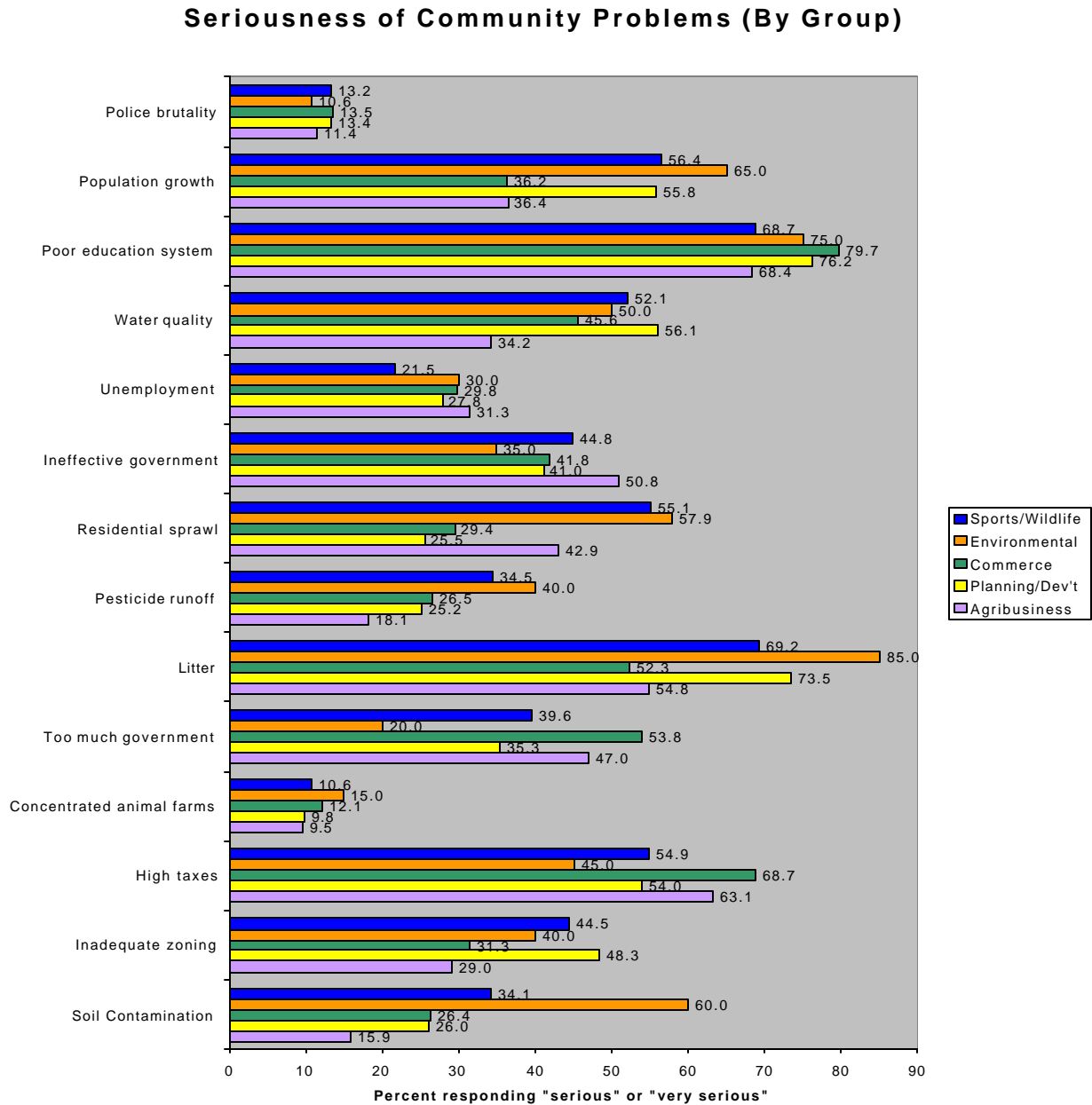


Figure 12 shows what percent of each group that responded “serious” or “very serious” for those community problems where there was a significant difference on opinions by group.

Figure 12. Seriousness of Community Problems, By Group.



Only statements showing significant differences are graphed. p#.05.

Closing Comments Made by Respondents

Many respondents wrote open-ended commentary at the conclusion of the survey. Many of these comments reiterated what they previously had written about regulation, zoning and social problems in the state. A few indicated that the leaders in their counties were incompetent or “jokes.” Several indicated that infrastructure maintenance is a problem in the state. Several also relayed stories of being affected by various types of encroachment spawned by lack of planning and zoning. Quite a few reiterated that farming is important (socially, economically) in the state. Some comments praised and others criticized the survey. Some wanted to know why the survey was being conducted and wanted to see the results published. Other comments included:

- *“Environmentalists know what the effect of farming is on ground/surface water. Need to work with farmers who are familiar with their agricultural processes to prevent or minimize impact. Government will have to work with both groups.”*
- *“Would like to see the community or communities of the county have community gardens so the families could have fresh vegetables, preferably organic gardens.”*
- *“The largest concern is the long term availability of good drinking water, then the pollution of oceans and streams which is creating a growing market for farm raised seafood, and of course the problem of air pollution...”*
- *“Please do not continue to let the Animal Agriculture departments at Clemson continue to dwindle away. We need educated farmers to meet the demands of a changing world.”*
- *“Farming in the U.S. is in trouble. Farming will move to less developed countries where labor is cheaper.”*
- *“I believe Clemson University should be a leader in the future of animal agriculture in the state of South Carolina and the state.”*
- *“I believe that before long all areas of agriculture will be performed under contract.”*
- *“I deeply distrust the implication that the government can or should help.”*
- *“I don’t feel that our growing urban population realizes the importance of animal agriculture, or any agriculture for that matter! There needs to be a constant awareness campaign.”*
- *“I hate to see SC become so urbanized and lose its historic farm connection. We need to do all we can to encourage Co-op farming in this state.”*
- *I have a University concern. Clemson University is not doing justice for the number of students in Animal Agriculture. We continue to lose professors with*

increasing numbers. It sure looks like the process of phasing out AVS at Clemson is underway.”

- *“I majored in sociology so I have great sympathy for farmers. More people cause more problems. We need more cooperation among people. May God help us!”*
- *“I think we need areas for farms and livestock. We don’t need house after house, pavement everywhere. We need natural resources.”*

Conclusion

In light of the findings of the current study and those of the previous telephone survey, it appears that animal agriculture is basically in good stead with adults in South Carolina. However, issues such as zoning, regulation, property rights, ethical treatment of animals, responsibility for the environment, the preservation and support of family farms, the prohibition of corporate farms, and policy makers’ abilities to formulate well-reasoned policies about animal agriculture are issues that warrant reasoned public discourse.

An effort has been made in this report to highlight the “hot spots” that are revealed in this study, some of which were apparent in the 1998 study as well.

Based on these two studies, it would appear that South Carolina is a state experiencing a good deal of strain. That sprawl is occurring is documented by other studies. That people are strained by it has been revealed in this study. Farming as a way of life and family farming in particular are prized in South Carolina. However, whether residents are willing to pay the price to help it succeed is debatable. Furthermore, with sprawl encroaching on farm operations, public discourse about the implications of this sprawl, for individuals, the state, and the future, is necessary. This discourse necessarily must include zoning (or, land use planning), even though zoning is seen by some as a violation of property rights and as an unnecessary and unwelcome intrusion. To that end, dialogue is called for on property and individual rights, the common good, and the future of this growing state.

It appears that some respondents lack confidence in policy makers’ knowledge and abilities to pass and regulate well-reasoned policies about farming. Again, more public discussion about policies, how they are made, and who makes them and why, could be healthful for the state.

“Standpoints” became apparent while analyzing the data from the current study. In general, respondents agree that South Carolina has some major, serious social problems that are having negative effects on their communities. These include crime, residential sprawl, teen pregnancy, and air pollution. But, after that, divides appear. For instance, agribusiness does not see soil contamination and inadequate zoning as serious problems as much as do

the other groups. Fewer of those aligned with commerce rate high taxes and residential sprawl as serious than do the other groups.

This study and the one conducted in 1998 give support to the growing sentiment that in the name of quality of life in the state, and in order to reduce the strain due to changing patterns of life, increases in population, alterations in land use, several things need to be done. First, further examination into existing regulations surrounding animal agriculture, the rationale behind and efficacy of enforcement, should occur. Second, more and more citizens appear to believe that zoning, or regulated land use, is needed in this state. Already, newspapers are carrying stories of communities calling for zoning. Some of these local efforts are targeted toward keeping one particular element out of an area. For example, one push in some communities has been trying to restrict mobile home developments. Larger discussions are needed so that we think regionally and statewide vis-à-vis land use, population expansion, and accommodating an array of lifestyles and economic endeavors. As the land grant for South Carolina, Clemson University is an ideal vehicle for getting these issues that affect the state now, and will have permanent impact on its future, on the table and before the public.