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**Managing Fish and Wildlife:
Public Trust in DEC and
Opinions on DEC Funding**

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EXECUTIVE SUMMARY

The New York State Department of Environmental Conservation (DEC) Division of Fish and Wildlife (DFW) wanted information on public trust in the agency for the management of fish and wildlife. DFW asked the Cornell Center for Conservation Social Sciences (CCSS) to gather this information along with information on opinions about the most suitable source of funding for management. Two questions on trust and opinions about funding were developed for the 2021 Empire State Poll. The poll, conducted by telephone, surveyed New York State (NYS) residents aged 18 and over.

Over half of NYS residents agreed that they trusted DEC to manage New York's fish and wildlife (60%); few disagreed (10%). The percent of residents who trusted DEC, however, was significantly lower downstate (51%) than upstate (75%). More downstate residents were neutral when they were asked about their trust in DEC (36% vs. 19%).

The majority (55%) of NYS residents who had an opinion on how DEC's fish and wildlife programs should be funded supported a combination of funding via license sales and general public tax dollars. One-third (36%) thought funding should be primarily via license sales; few thought it should be primarily with general public tax dollars (8%).

We tested whether opinions about funding differed when the range of programs that DEC carries out was emphasized. We randomly selected people to be asked one of two versions of the funding question, and found a significant difference in support based on the version of the question asked. Those who were told about the range of programs DEC manages (i.e. from fishing and hunting to protecting endangered species in New York) were more likely to support a combination of funding sources and less likely to support funding via general public tax dollars compared to those who were not provided with information about DEC programs. These results suggest that while a majority of NYS residents support a combination of funding sources, the amount of background information provided influences their opinions. Therefore, communication about funding options should likely aim to provide background information about the type of work that DEC does.

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The Survey Research Institute of Cornell University conducted the 2021 Empire Poll.

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INTRODUCTION

The New York State Department of Environmental Conservation (DEC) Division of Fish and Wildlife (DFW) wanted information on public trust in the agency for the management of fish and wildlife, and opinions about the most suitable source of funding for management. To address these needs DFW and the Cornell Center for Conservation Social Sciences (CCSS) developed questions to be included in the Empire State Poll—an annual statewide survey of New York State (NYS) residents conducted by Cornell University.

METHODS

Two questions, one on trust and the other on opinions about the source of funding, were developed for use in the 2021 Empire State Poll. The first question on trust in DEC to manage fish and wildlife was similar in wording and response choices to questions used in other studies conducted by CCSS for DEC, such that comparisons could be made between the studies. The second question, on opinions about funding mechanisms, had two versions to explore whether opinions about funding differed when the range of programs that DEC carries out was emphasized. Respondents were randomly selected to be asked one or the other version. Version A indicated that DEC manages a range of programs from fishing and hunting to protecting endangered species in New York. Version B did not provide any information about DEC programs. (See Appendix A at the end of this document for the exact wording of the questions.)

The Empire State Poll, conducted by telephone by the Survey Research Institute (SRI) at Cornell University, is a survey of NYS residents aged 18 and over. The survey combines a core of socio-demographic questions, which are repeated each year, with questions on a variety of other topics submitted by academic researchers.

In 2021, likely residents of New York State were sampled through a random sample of telephone numbers covering both cellular and land-line exchanges. Oversampling of these exchanges was used to ensure representation of Hispanics and African Americans. The phone numbers were purchased from Marketing Systems Group. For households included in the sample, every adult in the household had an equal chance of being included in the poll. Interviews were conducted with 800 people, 400 upstate and 400 downstate. (Downstate was defined as residents of Bronx, Kings, Nassau, New York, Richmond, Rockland, Queens, Suffolk, and Westchester counties.) Statewide estimates were calculated by weighting the data according to the population living in each region. The data was also weighted by gender, age, race, education, household income, and party affiliation, based on the 2018 American Community Survey 5-year estimates, and New York State Board of Elections data. Thus, the results can be generalized to the entire state.

Telephone survey data collection began on March 5, 2021 and ended on April 27, 2021. Interviews were conducted in English using a web data collection instrument.

RESULTS AND DISCUSSION

Over 30,000 telephone numbers were included in the initial sample. The majority of these numbers were either non-working numbers or no one answered the telephone after multiple attempts. From the original sample, 6,990 telephone contacts were made. Eleven percent of the contacts resulted in completed interviews. Sixty-three percent refused to be interviewed. The remaining contacts were deemed ineligible because the person lived outside of New York State, did not speak English, was physically or mentally unable to respond, the telephone number was not a household, or the telephone number connected to a minor's cell phone.

As a result of the weighting protocol used this year, the region of residence, gender, education, race (Black and Hispanic), household income, and political party affiliation in our results are the same as those for the NYS population as assessed by larger studies (Table 1). Those studies found that nearly two-thirds of the state's population lives downstate (64%), slightly more than half are female (51%), and just over one-third have a college degree (36%). Other socio-demographic characteristics (marital status, employment status, social ideology, and race [White and Asian]), reflect the sample drawn for this study (Table 2) and may not be identical to the characteristics of the NYS population.

The socio-demographic characteristics of region of residence, race, marital status, social ideology and political party affiliation had statistically significant relationships with one or both of the questions we asked. The other socio-demographic characteristics – age, gender, education, employment status, and household income – were not significantly correlated with either of the questions. Results for the questions are presented in subsequent tables with the overall response to the question first, followed by responses categorized by other variables with which the responses were significantly correlated.

Table 1. Socio-demographic characteristics of NYS population used for weighting respondent data.

Characteristics	Percent
New York State region	
Downstate	64
Upstate	36
Gender	
Male	49
Female	51
Education	
College degree or more	36
Race*	
Black	17
Hispanic	19
Household income	
\$0 to < \$10,000	7
\$10,000 to < \$50,000	33
\$50,000 to < \$100,000	27
\$100,000 and above	33
Age	
18-24	7
25-34	16
35-44	13
45-54	14
55-64	12
65 and above	15
Political party affiliation	
Democrat	51
Independent	4
Republican	22
Undeclared or other party	23

*Categories are not mutually exclusive.

Table 2. Socio-demographic characteristics of respondents.

Characteristics	Percent
Race*	
White	64.7
Asian	8.7
Marital status	
Married	40.2
Divorced, separated	11.2
Widowed	6.0
Single	42.5
Employment status	
Employed	42.9
Not working for pay	36.4
Retired	16.7
Disabled	2.3
Unable to work	1.7
Social ideology	
Liberal	41.5
Middle of the road	28.6
Conservative	29.8

*Categories are not mutually exclusive.

Trust in DEC to Manage New York’s Fish and Wildlife

When asked if they trust DEC to manage New York’s fish and wildlife, 2% of NYS residents indicated they did not know and were deleted from further analysis. Of those who provided an answer, over half agreed that they trusted DEC to manage New York’s fish and wildlife (60%); few disagreed (10%) (Table 3). The percent of residents who agreed was significantly lower downstate (51%) than upstate (75%); more downstate residents were neutral when asked about their trust in DEC (36% vs. 19%).

Table 3. Trust in the DEC to manage New York’s fish and wildlife, statewide and by region.

I trust DEC to manage fish and wildlife*	Percent		
	Statewide	Downstate	Upstate
Strongly agree	24.6	22.9	27.6
Agree	35.2	28.3	47.5
Neutral	30.1	36.5	18.9
Disagree	5.5	6.6	3.4
Strongly disagree	4.6	5.7	2.7

*Statistically significant difference between downstate and upstate residents at P=0.05 using t-test.

The only other socio-demographic characteristic for which differences existed in the level of trust was political party affiliation. Those affiliated with the Republican Party were less likely to trust DEC to manage New York’s fish and wildlife, with 30% disagreeing with the trust statement compared with 5-8% of other respondents (Table 4).

Table 4. Trust in the DEC to manage New York’s fish and wildlife, by party affiliation.

Trust DEC to manage fish and wildlife*	Percent			
	Democrat	Independent	Republican	Undeclared or other party
Strongly agree	30.4	22.4	16.5	21.1
Agree	35.2	37.6	30.8	41.4
Neutral	26.7	35.2	22.9	32.0
Disagree	5.2	3.2	14.5	0.0
Strongly disagree	2.6	1.6	15.4	5.6

*Statistically significant difference based on party affiliation at P=0.05 using chi-square test.

A number of other recent studies conducted by CCSS have asked various types of stakeholders about their trust in DEC. We compared results from those studies with the current study and found variation in levels of trust in DEC (Table 5). The highest levels of trust were found when asking deer hunters about topics related to deer management.

Table 5. Current and recent studies using a similar statement and measurement scale regarding trust in DEC.

Statement (report #)/audience	Percent		
	Agree	Neutral/ Neither	Disagree
I trust the DEC to manage New York's fish and wildlife NYS residents	59.8	30.1	10.1
I trust DEC to make decisions about how to manage moose (CCSS 20-4)			
Adirondack Park residential landowners	58.6	24.5	16.9
Moose peripheral range residential landowners	59.8	24.7	15.6
I trust NYSDEC to take actions that will protect threatened and endangered species (HDRU 17-11)			
Upstate residents	64.4	26.7	8.9
Licensed hunters	60.7	28.0	11.3
Licensed anglers	63.6	22.2	14.2
I trust NYSDEC to make good decisions about deer management overall (CCSS 21-2)			
Active deer hunters	70.8	11.0	18.1
I trust NYSDEC to make good decisions specifically about CWD prevention (CCSS 21-2)			
Active deer hunters	74.1	13.2	12.5
I trust the DEC to make good deer management decisions regarding CWD issues (CCSS 20-3)			
Active deer hunters	78.8	8.6	12.6

Opinions about Source of Funding

Twenty percent of NYS residents did not have an opinion on how DEC's fish and wildlife programs should be funded (Figure 1, Table 6). We found no statistically significant difference in the proportion who had an opinion between versions of the question or for any of the socio-demographic comparisons we made, so we focus our remaining discussion on those who had an opinion. Of those who had an opinion, the majority of New Yorkers (55%) support a combination of funding via license sales and general public tax dollars (Table 6). One-third (36%) supported funding primarily via license sales; few supported funding primarily with general public tax dollars (8%).

We did find a difference in support for funding mechanism between versions of the question. Those who were told about the range of programs DEC manages (Version A) were more likely to support a combination of funding sources and less likely to support funding via general public tax dollars compared to those who were not provided with information about DEC programs (Table 6).

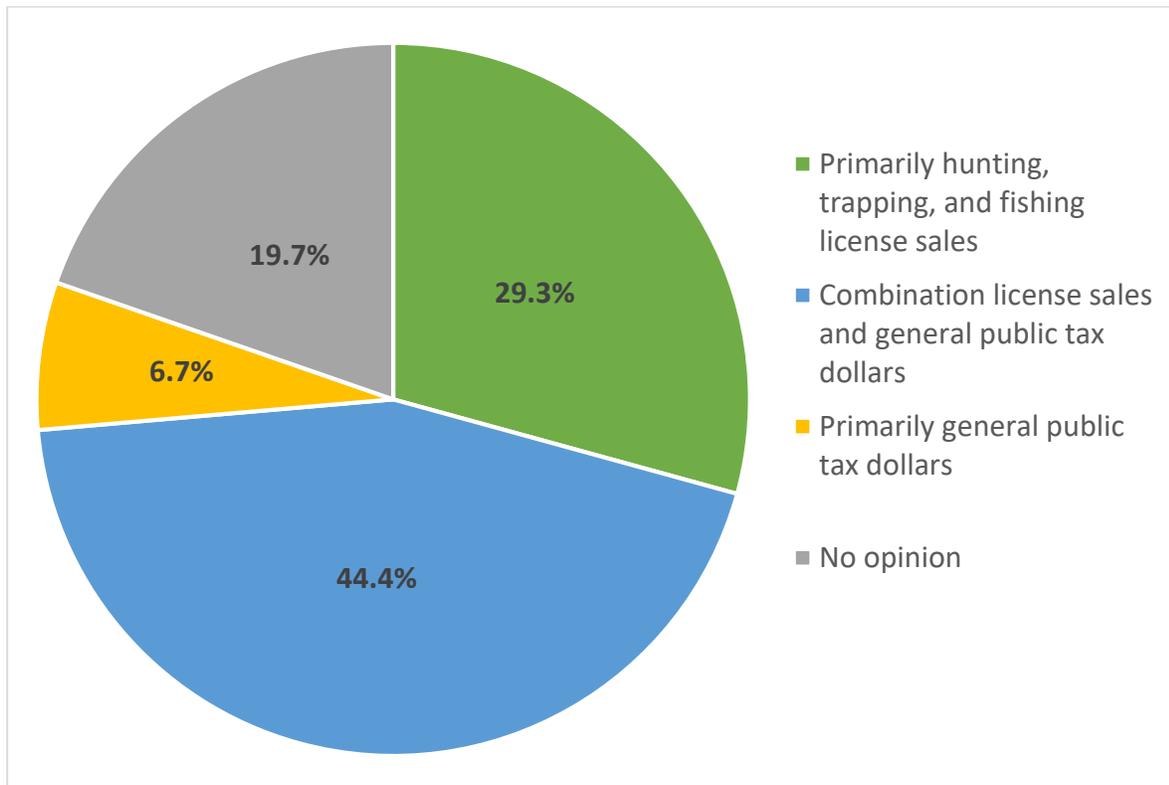


Figure 1. NYS residents' opinion on how DEC fish and wildlife programs should be funded.

Table 6. Opinions on how DEC fish and wildlife programs should be funded, statewide and by version.*

How to fund DEC fish and wildlife programs	Percent			
	Overall	Of those with an opinion:		
		Overall	Version A**	Version B
Primarily by hunting, trapping, and fishing license sales	29.3	36.4	35.4	37.6
A combination of license sales and general public tax dollars	44.4	55.2	59.0	51.0
Primarily with general public tax dollars	6.7	8.3	5.6	11.4
No opinion	19.7			

* Version A included a brief description of the range of programs DEC manages. Version B did not.

**Statistically significant difference between Version A and Version B for people with an opinion at P=0.05 using t-test.

The two different versions of the funding question elicited different responses from upstate residents and downstate residents (Table 7). Among downstate residents, those who heard the statement describing the range of programs DEC managed (Version A) were more likely to select options that included funding through hunting, trapping, and fishing licenses sales and less likely to select funding primarily from general public tax dollars compared to those who were not provided with information about DEC programs. We speculate that for downstate residents all of the information—including the additional information about fishing and hunting programs managed by DEC—is less familiar to them, so the additional information about fishing and hunting programs makes the funding from license sales seem more logical. For upstate residents, the version of the question had the opposite effect. Almost 60% of upstate residents who were provided information about the range of programs DEC manages (Version A) supported a combination of funding through license sales and general public tax dollars. Over half of upstate residents (53%) who were not provided information about DEC programs supported funding primarily by hunting, trapping, and fishing license sales. Version B did not include the statement describing the range of programs DEC managed, leaving respondents to base their opinion on their previous knowledge of DEC programs. We speculate that upstate residents are more likely to be familiar with DEC and the hunting, trapping, and fishing programs they manage. If this is the case, then license sales is a logical way to fund fish and wildlife programs because it relates directly to the activities of DEC they are most familiar with.

Version A, however, provides new (or at least less familiar) information to respondents about other types of programs DEC funds, which weakens the link of DEC activities to license sales—and this shifts their perceptions resulting in greater support for a combination of funding sources.

Table 7. Opinions on how DEC fish and wildlife programs should be funded, by question version* within region.

How to fund DEC fish and wildlife programs	Percent			
	Downstate**		Upstate***	
	Version A	Version B	Version A	Version B
Primarily by hunting, trapping, and fishing license sales	33.8	28.2	38.1	53.2
A combination of license sales and general public tax dollars	58.8	55.1	59.3	44.3
Primarily with general public tax dollars	7.4	16.8	2.6	2.6

* Version A included a brief description of the range of programs DEC manages. Version B did not.

**Statistically significant difference between Version A and Version B for downstate residents with an opinion at P=0.05 using t-test.

***Statistically significant difference between Version A and Version B for upstate residents with an opinion at P=0.05 using t-test.

Among other socio-demographic characteristics with significant relationships to options for funding, none of the relationships differed by the version of the question asked. For the relationship with social ideology, there was an increasing trend in support for funding primarily from license sales as social ideology went from liberal to conservative (Table 8). With regard to race, over half of white and black residents supported funding through a combination of license sales and general public tax dollars, but the remaining white residents were more likely to support funding primarily by license sales, whereas the remaining black residents were evenly split between funding primarily by license sales and primarily by general public tax dollars. While there was a statistically significant difference in support for funding by marital status, there was no obvious explanation for the relationship that improves our understanding of responses to the question.

Table 8. Opinion on how DEC fish and wildlife programs should be funded, overall and by variables with a statistically significant relationship.

	Percent		
	Primarily by license sales	Combination of license sales and general public tax dollars	Primarily by general public tax dollars
Overall	36.4	55.2	8.3
Social ideology*			
Liberal	29.0	62.8	8.2
Middle of the road	36.4	60.0	3.6
Conservative	52.4	42.1	5.5
Race			
White**	40.1	55.7	4.2
Black**	22.5	55.9	21.6
Marital status***			
Married	43.8	49.7	6.4
Divorced, separated	28.6	69.0	2.4
Widowed	21.0	33.3	45.7
Single	30.9	63.5	5.6

*Significant difference in opinion on how programs should be funded based on social ideology at $P < 0.05$ using ordinary least squares regression.

**Significant difference in opinion on how programs should be funded between racial group specified and all other respondents at $P < 0.05$ using t-test.

***Significant difference in opinion on how programs should be funded based marital status at $P < 0.05$ using chi-square test.

CONCLUSIONS

The questions asked in the Empire State Poll were intended to provide DEC with more information on trust in the agency to manage fish and wildlife, and support for potential funding options. We found that New Yorkers generally trust DEC to manage fish and wildlife (60%), and very few don't trust DEC (10%). Trust is higher upstate (75%) than downstate (51%). More than one-third of downstate residents (36%) and about one-fifth of upstate residents (19%), however, said they were neutral with regard to their trust in DEC, indicating uncertainty and suggesting a lack of knowledge about DEC's roles and activities. This interpretation is corroborated by a recent study, which found 70% of New Yorkers overall and 77% of downstate

residents were unable to correctly identify DEC as the agency with primary responsibility for fish and wildlife management in New York (Connelly and Lauber, 2020).

For the question about support for potential funding options, New Yorkers think either a mix of sources (55%) or license sales only (36%) are the most appropriate options. There is evidence again, however, of a lack of knowledge about what DEC does. Information about the range of programs DEC manages influenced opinions, and had a different effect upstate (where knowledge about DEC was likely greater) than downstate. These results suggest that while a majority of NYS residents support a combination of funding sources, the amount of background information provided influences their response. Therefore, communication about funding options should likely aim to provide as much background information about the work of DEC as possible.

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APPENDIX A: 2021 EMPIRE POLL QUESTIONS

Question 1: The New York State Department of Environmental Conservation (DEC) has primary responsibility for managing fish and wildlife in the state. How strongly do you agree or disagree with the following statement:

I trust the DEC to manage New York's fish and wildlife

- _____ Strongly agree
- _____ Agree
- _____ Neutral
- _____ Disagree
- _____ Strongly disagree
- _____ Don't know

Question 2A: The DEC manages a range of programs from fishing and hunting to protecting endangered species in New York.* These programs are primarily funded by hunting, trapping, and fishing license sales, but they could also be funded by general public tax dollars. In the future, how do you think the DEC's fish and wildlife programs should be funded?

Question 2B: The DEC fish and wildlife programs are primarily funded by hunting, trapping, and fishing license sales, but they could also be funded by general public tax dollars. In the future, how do you think the DEC's fish and wildlife programs should be funded?

- a. Primarily by hunting, trapping, and fishing license sales
- b. Primarily with general public tax dollars
- c. A combination of license sales and general public tax dollars
- d. No opinion

* The highlighted text identifies the difference between the two versions of the question.