# Public Perceptions of Drone Use on Lands Managed by the Kansas Department of Wildlife, Parks, and Tourism

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### Prepared for:

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## **Executive Summary**

Kansas Department of Wildlife, Parks, and Tourism (KDWPT) manages a variety of public lands in the state totaling 150 areas and over 460,000 acres. KDWPT has grown increasingly interested in use of Unmanned Aerial (or Aircraft) Vehicles (UAVs, or most commonly, drones) for assessing, monitoring, and managing natural resources on these public lands. Predictably, recreational users of drones are similarly interested in lands managed by KDWPT as locales to fly their personal vehicles. To assess public sentiment toward UAVs in general and UAV use on lands managed by KDWPT, the agency assembled an agency committee to study the issue, requesting the help of DJ Case & Associates to:

- 1. Conduct a literature review to establish background and understanding of UAV emergence, use, and future prospects (see Appendix A);
- 2. Conduct a survey of the Kansas general public to assess citizen sentiment toward UAVs in general and use of UAVs on KDWPT lands specifically. The survey draft was developed in large measure by the KDWPT UAV Planning Committee, in collaboration with DJ Case & Associates (DJ Case). DJ Case worked with an industry-leader in online survey research, Toluna, in administering the survey to 800 empaneled adults, 18 years and older, residing in Kansas. DJ Case weighted (or "normalized") the dataset to reflect age and gender distributions of the adult Kansas population. The dataset was representative of the Kansas adult population, including race-ethnicity and urban-rural residence.

## <u>Selected survey findings revealed:</u>

- √ 14% of Kansas adults 18 years old and older said they <u>owned</u> drones as of October, 2018. This percentage translates to about 300,000 adult Kansas drone owners.
- ✓ For 7 in 10 Kansans owning drones, flying drones is a relatively *infrequent* activity, with a majority of this group operating drones 1-2 times/year (25%) or 3-8 times/year (34%). This infrequency does not mean the activity is unimportant to owners, simply that the activity is fairly infrequent. There is, however, what might be considered a core enthusiast group—about 10% (30,225)—who said they flew their drones 25 or more times a year, or about once a week or more.
- ✓ Drone ownership among respondents who indicated participating in selected outdoor activities generally was higher than ownership in the Kansas general adult population (14%). Highest ownership by *relative frequency* was among campers (22%), followed by hikers (21%), then walkers (15%).
- ✓ Of nine potential applications or uses of drone technology respondents were asked to consider, Kansans gave clear support to six drone applications that KDWPT might use for land and resource management, science, and public safety, ranging from "search and rescue" (86% support) to "manage wildlife and habitat" (64% support).
- ✓ Three of the nine drone uses respondents were asked to consider were fundamentally recreational (recreational photography, recreational video, and flying drones just for fun). These were supported to a lesser extent than the science, management, and

- safety applications (photography (52% support), video (44% support), fun flying (36% support)), but with relatively large numbers of respondents answering "neutral," particularly for "flying drones for fun" (41%).
- ✓ When Kansans who were "neutral" on the various drone uses were temporarily removed from the dataset, the remaining respondents (drone owners and non-owners) supported all nine drone applications, including the recreational uses.
- ✓ Few Kansas adults said their visitation to KDWPT-managed lands would be reduced if drones were deployed for science and management applications. Indeed, for all nine UAV uses listed, majorities of respondents said there would be "no change" in visitation if drone use was authorized.
- ✓ Of 14 outdoor groups ranging from "hunter" to "disc golfer," all indicated they would be "somewhat" bothered by drones, marked by "feeling less privacy," concern over "potential disturbance to wildlife," and "loss of wild places."
- ✓ Drone owners, as well, were "somewhat" bothered over "feeling less privacy," "potential disturbance to wildlife," and "loss of wild places" with drone deployment.
- ✓ Pluralities of the Kansas adult population would feel more positive toward the use of drones on KDWPT-managed areas if the drones were operated by trained and certified KDWPT employees, law enforcement staff, contractors, or university staff.
- ✓ When informed that recreational drone pilots required no training or certification, respondents' feelings toward drones grew more negative.
- ✓ IF KDWPT designated areas for the recreational use of drones on their public lands, 67% of Kansas adults who do not own drones said their visitation to KDWPT-managed lands would not change, and in fact, 17% said they would be more willing to visit. If drone flight sites were designated, 52% of adult Kansas drone owners said their visitation would not change, while 38% said they would be more willing to visit.

#### Major implications:

- ✓ Drone uses on KDWPT-managed lands for science, resource management, and safety are widely supported among the Kansas adult citizenry and outdoor recreationists.
- ✓ Opposition to recreational use of drones is not in the majority, though considerable numbers of the public and outdoor interest groups express some reservations about drone pilot competence that should be addressed in policy, rules, and regulations.
- ✓ Flight sites on selected KDWPT-managed areas likely would be welcomed and used by drone pilots. And in practically all instances, if developed using informed site planning and strengthened by appropriate rules and regulations, these designated areas very likely would not detract from the experiences of virtually all other area users.

## **Background**

Kansas Department of Wildlife, Parks, and Tourism (KDWPT) manages a variety of public lands, including state parks, wildlife areas, state fishing lakes, and trails in those areas. These areas total 150, covering over 460,000 acres (Figure 1).

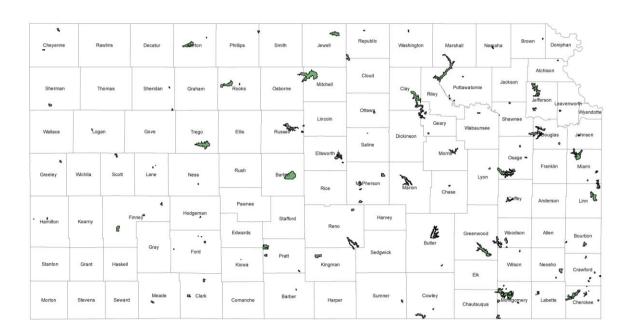


Figure 1. Areas managed by KDWPT (see https://ksoutdoors.com)

KDWPT has become increasingly interested in the use of Unmanned Aerial Vehicles (UAVs) for assessing, monitoring, and managing natural resources on these public lands. A UAV (virtually synonymous with the name "drone") is an aircraft without a human pilot aboard. A UAV is a component of an "Unmanned Aircraft System" (UAS), which includes a drone (typically with a small profile), a ground-based controller, and a system of communications between the two.

Military applications of a variety of UASs are broadly known by the public from news reports, movies, and social media such as YouTube. But smaller, non-military drones promise enormous potential for one of the most important tasks of natural resource agencies; data collection on a range of ecological and biological studies. Other potential benefits include real-time situation reports, including information on site/area condition, visitation, and security (including search and rescue), presumably with improved efficiencies in deployment of staff and time. By following approved procedures, trained UAV operators within KDWPT are developing a drone flight team capable of accomplishing a range of tasks, all to achieve enhanced public service.

As with many technologies, resource agency applications of UAVs were almost certainly preceded by adoption and adaptation of drones by the general public (and the general public's interest, undoubtedly preceded years in advance by military applications). The thrill of flight (moving in 3 dimensions)—an experience beyond the grasp of most people except pilots and gymnasts—has always fascinated segments of the general public, evidenced by a century-long

popularity of model airplanes in a variety of configurations, and model rockets from small to large. But no ground-based flight-related hobby has afforded the operator the degree of engagement and operational control that drones do now. Depending on design, drones can hover, descend and ascend rapidly, alter speed quickly, navigate relatively long distances, rise to comparatively high altitudes, and depending on payload capacity, lift packages, and carry a variety of complementary technologies, including video and audio devices.

For the public to accept drones, whether operated by KDWPT staff or recreational users, the perceived benefits must be balanced with legitimate concerns, including the sound and sighting of drones, perceived invasion of privacy by the presence of UAVs, risks to visitors of aerial devices, and potential disturbance of natural resources, most definitely including wildlife. The extent of public acceptance of or opposition to drones is an important consideration for KDWPT management's decisions to either restrict or expand projects currently underway in a limited number of locations.

Ironically, consumer popularity of drones and implications for fish and wildlife management are perhaps no better illustrated than page one of the November 2018 Christmas "Kickoff Sale" circular released by Bass Pro Shops-Cabela's (Figure 2). The lead sales item on page 1 is "a great gift idea for beginners or pros"—Bass Pro Shops Rogue Remote Toy Drone. Only on page 2 do sales items more traditionally associated with Bass Pro Shops-Cabela's Christmas offerings make their appearance (rangefinder, trail camera, fishing rod, hunting pack).

Figure 2. Evidence of the appeal of drones among consumers of outdoor equipment (source: Bass Pro Shops-Cabela's sales circular, Nov 2-20, 2018, p. 1).



Further evidence of the level of sophistication for which consumers are willing to pay—certainly beyond the classification of "toy"—is a drone featured in the Christmas 2018 web advertisement by the outdoors and sports store, Academy (Figure 3).

Figure 3. Evidence of the appeal of drones among consumers of outdoor equipment (source: Academy Ltd, (US), https://www.academy.com).



This drone, in the price range of \$500-600, features GPS positioning, a transmission range of 1.2 miles, with maximum speed of 31 miles per hours and flight time of 16 minutes. Obstacle-avoidance 3-D sensors help the operator avoid collisions (especially as distance increases between drone and operator), and the drone returns to the operator when the battery gets low or when the signal is lost. The camera features high resolution video photography (30 frames per second) and 12-megapixel still imagery. Hardly a "toy."

The prospective advantages of UAVs to help agency personnel with essential management and research, and perhaps attracting a new constituency to KDWPT-managed lands (particularly recreational drone users and spectators) strongly suggest that a policy should be considered to guide the use of this technology in the airspace inside Kansas public lands.

The KDWPT, and its Drone Task Force, sought help in answering some key questions helpful in developing a UAV policy. The services of DJ Case & Associates (DJ Case) were employed to provide two specific deliverables:

- 1. Literature review on UAVs (see Appendix A, p. 49 for the detailed review) including:
  - Discussion on the number of UAVs (including those formally registered in Kansas);
  - b. Proliferation of UAVs;
  - c. Functions (applications) of UAVs;
  - d. Public opinion research conducted to date on UAVs;
  - e. Consequences of UAVs on wildlife and humans;
  - f. Selected state and federal laws regulating UAVs; and
  - g. Specific citations referencing the foregoing topics.

2. A survey of the Kansas general public to assess the citizenry's sentiment toward UAVs in general, and use of UAVs on lands managed by KDWPT specifically, to include the final dataset for any supplemental analysis KDWPT might want to conduct.

Deliverable 1 (Background and Literature Review) is presented in Appendix A.

Following is a report of methods, findings, and implications of Deliverable 2, the survey of the general public within Kansas regarding UAVs.

## **Survey of the Kansas General Public**

The original survey draft was developed in large measure by the KDWPT Drone Task Force, in collaboration with DJ Case. An iterative process of drafting questions, reviewing by Planning Team and DJ Case, and revising was followed until final approval to proceed with the survey was given by KDWPT on October 24, 2018 (see Appendix B for survey). The compiled dataset was made available to DJ Case on October 30, 2018.

### Methods

DJ Case worked with an industry-leader in online survey research, Toluna, in administering the survey to 800 empaneled adults, 18 years and older, residing in Kansas. Online surveys are increasingly valued for their fiscal efficiencies, for the representativeness of respondents who are missing from mail and telephone surveys, and for the quality of data provided. Though online surveys cannot be classified as a random or probability sample in a strict statistical sense, the poor response to today's telephone and mail surveys similarly disqualify them from any characterization as "probability" samples, and further, bring into immediate question the representativeness of samples experiencing such low response rates (often in the single digits). Hypothetically, if one were to classify the online poll of 800 Kansas residents as a probability sample, sampling tolerance would be ±5% on the estimate.

Time to complete the survey averaged 10 minutes. A number of respondents commented that they appreciated the opportunity to participate in the survey, finding the questionnaire interesting, thought-provoking, and characterizing the content as important. Respondents were assured anonymity, with their answers only reported in the aggregate.

Table 1 and Figure 4 detail the number of respondents by Kansas counties. Of the 105 counties in the state, 73 were represented, leaving 32 with no respondents. Figure 5, complementary to Figure 4, reveals that most of the 32 counties with no respondents have populations of less than 10 people per square mile, greatly lessening the likelihood that empaneled households would even be available in those counties. In fact, respondents from these counties likely would not appear in any general sample by any method, unless rural areas were specifically targeted for oversampling. Comparing response by county between Figures 4 and 5 indicates that response was distributed in a manner representative of the Kansas population.

Table 1. Frequency (count and %) of respondents to KDWPT survey of Kansas public poll of sentiment toward drones.

County	Column N %	Count	County (con)	Column N%	Count (con)
Allen	0.4%	3	Lyon	0.8%	6
Anderson	0.6%	5	Marion	0.5%	4
Atchison	1.0%	8	Marshall	0.5%	4
Barber	0.3%	2	McPherson	1.6%	13
Barton	0.6%	5	Miami	0.8%	6
Bourbon	0.6%	5	Mitchell	0.4%	3
Brown	0.4%	3	Montgomery	1.5%	12
Butler	2.5%	20	Morris	0.3%	2
Cherokee	0.5%	4	Nemaha	0.5%	4
Clay	0.5%	4	Neosho	1.0%	8
Cloud	0.4%	3	Ness	0.1%	1
Coffey	0.1%	1	Osage	0.4%	3
Cowley	1.4%	11	Osborne	0.1%	1
Crawford	1.4%	11	Ottawa	0.1%	1
Dickinson	0.6%	5	Pawnee	0.8%	6
Doniphan	0.4%	3	Phillips	0.1%	1
Douglas	2.5%	20	Pottawatomie	0.6%	5
Edwards	0.4%	3	Pratt	0.6%	5
Elk	0.3%	2	Reno	2.5%	20
Ellis	0.8%	6	Republic	0.4%	3
Finney	0.8%	6	Rice	0.3%	2
Ford	1.0%	8	Riley	3.1%	25
Franklin	1.1%	9	Rooks	0.1%	1
Geary	3.4%	27	Rush	0.1%	1
Gove	0.1%	1	Russell	0.1%	1
Grant	0.5%	4	Saline	2.5%	20
Gray	0.1%	1	Scott	0.3%	2
Harper	0.1%	1	Sedgwick	20.5%	164
Harvey	1.3%	10	Seward	0.1%	1
Hodgeman	0.3%	2	Shawnee	8.3%	66
Jackson	0.3%	2	Sherman	0.3%	2
Johnson	16.4%	131	Sumner	0.4%	3
Kiowa	0.3%	2	Thomas	0.3%	2
Labette	0.5%	4	Wilson	0.5%	4
Leavenworth	2.5%	20	Woodson	0.3%	2
Linn	0.3%	2	Wyandotte	5.1%	41
Logan	0.1%	1	Total	100.0%	800

Figure 4. Count of respondents to KDWPT survey of Kansas public poll of sentiment toward drones.

#### Brown 3 Cheyenne 0 Rawlins 0 Decatur 0 Smith 0 Republic 3 Norton 0 Phillips 1 Marshall 4 Jewell 0 Atchison Cloud 3 Sherman 2 Thomas 2 Mitchell 3 Clay 4 Graham 0 Osborne 1 Sheridan 0 Rooks 1 Ottawa 1 Lincoln 0 Geary 27 6 Logan 1 Wallace 0 Gove 1 Trego 0 Russell 1 Ellis 6 Ellsworth 0 Morris 2 Osage 3 Miami 6 Greeley 0 Wichita 0 Rush 1 Barton 5 Scott 2 Ness 1 Lane 0 Lyon 6 Marion 4 Coffey Rice 2 Linn 2 Chase 0 Pawnee 6 Hodgeman 2 Finney 6 Hamilton 0 Harvey 10 Reno 20 Edwards 3 Allen 3 Butler 20 Ford 8 Gray 1 Sedgwick 164 Pratt 5 Stanton 0 Kingman 0 Elk 2 Sumner 3 Morton 0 Meade 0 Clark 0 Cowley 11 Stevens 0 Harper 1 Barber 2 abette 4

## Survey of Kansas general public N = 800, Opinions of drones on KDWPT lands

Compare Figure 5 to Figure 4 above, noting strong correlation between population centers (Fig. 5) and sample sizes by county (Fig. 4).

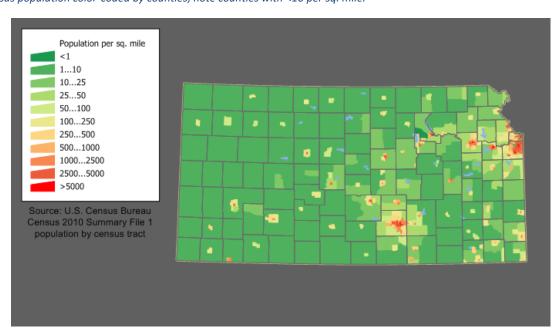


Figure 5. Kansas population color-coded by counties; note counties with <10 per sq. mile.

Toluna sought to balance survey response by gender and age to help ensure representativeness of the sample to the Kansas population. Moreover, other questions giving insights to a balanced sample included respondents' race-ethnicity, as well as respondents' zip codes which were used to produce other geo-references, including county of residence, FIPS codes (Federal Information Processing Standard) linked to the U.S. Census Bureau's "Quick Facts" for each county, city-town, and urban-rural residence. As for race-ethnicity and urban-rural residence, the sample was favorably well balanced (Table 2). For comparison, using Census-based data from the 2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation<sup>1</sup> (the most recent year for which Kansas-specific data are available), the percent Kansas Hispanic population of 7% compared favorably to the 6% Hispanic population in the sample. Eight of 10 Kansas respondents to the National Survey characterized themselves as "white," as did eight of 10 in the sample. Four percent of Kansas respondents in the National Survey described themselves as "African American," as did 5% of sample respondents. And 70% of Kansas respondents to the National Survey were characterized as "urban" (and 30% "rural"), as were 63% of sample respondents classified as "urban" (and 37% "rural").

Table 2. Sample respondents classified by race-ethnicity and urban-rural residence

		Column N %	N
Which best	African American or Black	5%	38
represents ethnic or	Hispanic or Latino	6%	49
racial background?	Asian	2%	16
	Caucasian or White	79%	635
	Native American or Pacific Islander	2%	19
	Two or more races	3%	27
	Prefer not to answer	2%	16
	Total	100%	800
Metro or non-metro	Urban	63%	500
county	Rural	37%	300
	Total	100%	800

(Sample "Urban/Rural" Kansas classification based on Office of Management and Budget county definitions: https://www.ers.usda.gov/webdocs/DataFiles/53180/25571 KS.pdf?v=0)<sup>2</sup>

Two additional bellwether variables in assessing sample representativeness are age and gender. Here, sample results were mixed (Table 3).

<sup>&</sup>lt;sup>1</sup> U.S. Census Bureau and U.S. Fish and Wildlife Service, Kansas results from the 2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation, 82pp., https://www2.census.gov/programs-surveys/fhwar/publications/2011/fhw11-ks.pdf

<sup>&</sup>lt;sup>2</sup> Kansas "urban counties": Sumner, Sedgewick, Harvey, Butler, Linn, Miami, Franklin, Osage, Johnson, Douglas, Shawnee, Wabaunsee, Wyandotte, Leavenworth, Jefferson, Jackson. All others are "rural." These groupings are "for use by Federal statistical agencies in collecting, tabulating, and publishing Federal statistics," https://www.ers.usda.gov/webdocs/DataFiles/53180/25571 KS.pdf?v=0

Table 3. Age and gender distributions from the survey sample (Kansas adults, 18 years and older), compared to actual U.S. Census Bureau estimates.

		Sample %	Count	Actual <sup>a</sup>
What is your age?	18-24	15%	123	11%
	25-34	24%	190	23%
	35-44	22%	179	18%
	45-54	14%	115	17%
	55-64	14%	111	14%
	65 and older	10%	82	16%
	Total		800	
What is your gender?	Male	39%	308	50%
	Female	62%	492	50%
	Total		800	

a. From U.S. Census Bureau, U.S. Fish & Wildlife Service 2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation.

The sample's age distribution was favorably akin to the actual age distribution in the Kansas population, yet tending to over-represent younger Kansas adults and under-represent older adults. The gender distribution—disproportional toward female representation versus male, 62/39, with the ideal, 51/49 (or 50/50, depending on data source)—was askance enough to suggest that the dataset could benefit from a weighting, or "normalization," combining the variables age and gender (Table 4). Without normalizing the data, the attitudes of females would exert an unbalanced influence on survey results. Steps in this normalizing or weighting process were as follows:

- 1. The actual Kansas populations within each of 12 age and gender categories were used as a foundation (In Table 4, "Actual KS age-gender N).
- 2. The total population of Kansas adults 18 years and older is about 2.1 million. The proportion for which each of the 12 age-gender categories accounted was calculated using the actual population within each of the 12 categories as the numerator in a simple fraction (in Table 3, "Actual KS age-gender N), and the ~2.1 million figure (2,126,179) as the denominator (in Table 4, "Proportion").
- 3. This proportion was multiplied by 800 (in Table 4, total of "Survey N" column) to yield the "ideal" sample size for each of the 12 categories if the sample was perfectly balanced by age and gender (in Table 4, "Adjusted survey N").
- 4. Finally, two weights could be calculated:
  - a. "Age-gender weight" (in Table 4), or the weight to be applied to a respondent depending on the combination of the person's age and gender (thus normalizing the sample); and
  - b. "Expansion weight" (in Table 4), or weight (based on the normalized sample) to be applied to expand the sample to the total count of adult Kansans 18 years and older.

Table 4. Survey respondents classified by age and gender for normalizing (weighting) the dataset.

Age and Gender	Actual KS age-gender N	Proportion	Survey N	Adjusted survey N	Age-gender weight	Expansion weight
18-24 Male	148,648	0.069913211	57	55.9305684	0.981238042	2,607.859649
18-24 Female	139,511	0.06561583	66	52.49266407	0.795343395	2,113.803030
25-34 Male	192,412	0.090496614	76	72.3972911	0.952595936	2,531.736842
25-34 Female	185,308	0.087155409	114	69.72432707	0.611616904	1,625.508772
35-44 Male	174,860	0.082241429	56	65.79314347	1.174877562	3,122.500000
35-44 Female	171,813	0.080808342	123	64.64667368	0.525582713	1,396.853659
45-54 Male	201,239	0.094648193	46	75.71855427	1.646055528	4,374.760870
45-54 Female	205,025	0.096428852	69	77.14308156	1.118015675	2,971.376812
55-64 Male	163,688	0.076986933	36	61.58954632	1.710820731	4,546.888889
55-64 Female	167,559	0.07880757	75	63.04605586	0.840614078	2,234.120000
65 & older Male	161,932	0.076161038	37	60.92883055	1.64672515	4,376.540541
65 & older Female	214,184	0.10073658	45	80.58926365	1.790872526	4,759.644444
TOTAL	2,126,179	1	800	800		

- ✓ Data from U.S. Census Bureau "American Fact Finder", Geography=Kansas, Variables=age and gender, 2010 Decennial Census.
- ✓ "Adjusted survey N" = ("Proportion" \* 800), yielding N if the sample were "exactly" proportional to the KS population
- ✓ "Age-gender weight" = ("Adjusted survey N)"/("Survey N"); weight needed per respondent to achieve "exact" proportionality by age and gender.
- ✓ Expansion weight = Solving for X using proportional analysis: "Age-gender weight" is to "Adjusted survey N" as "X" (or the unknown N) is to "Actual KS age-gender N"; weight assigned each respondent to expand estimates to the Kansas population (adults 18 and older)

## **Results: Respondent background**

A series of basic tables introduces results as well as best illustrate the effects of dataset normalization. To the heart of the matter, a question early in the survey asked respondents (Kansas adults 18 years and older) if they owned a drone. The *unweighted sample dataset* revealed that 15% (119) of 800 Kansans said they owned drones (Table 5). Of these 119, 58% (69) were owned by males, and 42% (50), by females. But recall that the unweighted dataset overrepresented females in the Kansas general population—thus, the importance of attempting to mathematically adjust the dataset to a more "normal" or representative balance of males and females. Remember, as well, that gender was the only diagnostic "bellwether" variable of the several examined that was distinctly imbalanced, though the age variable benefitted as well from normalizing.

Table 5. Percent of Kansas population owning drones, by gender (unweighted sample).

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		Male		Female		Total	
Do you own a drone?	Yes	58%	69	42%	50	119	15%
	No	35%	239	65%	442	681	85%
	Total	39%	308	62%	492	800	100%

Applying the age-gender weight to the data resulted in a notably different finding (Table 6). With age-gender "rightly" balanced, 14% (113) of the sample of 800 said they owned a drone (negligibly different than the 15% in the unweighted sample), but of Kansans who owned drones, 70% were male (versus 58% male ownership in the unweighted dataset), and 30% were females (versus 42% in the unweighted dataset).

Table 6. Percent of Kansas population owning drones, by gender (weighted sample).

3 6 71							
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		Male		Female		Total	
Do you own a drone?	Yes	70%	79	30%	34	113	14%
	No	46%	313	54%	374	687	86%
	Total	49%	392	51%	408	800	100%

The full benefit of normalizing a dataset is shown when percentages are expanded to the Kansas population, in absolute numbers (Table 7). Obviously, population estimates without normalization would have differed by thousands or tens of thousands.

Table 7. Percent of Kansas population owning drones, by gender (weighted population).

What is your gender?

		Male		Female		Total	
Do you own a drone?	Yes	70%	210,831	30%	89,189	300,019	14%
	No	46%	831,948	54%	994,211	1,826,160	86%
	Total	49%	1,042,779	51%	1,083,400	2,126,179	100%

INSIGHT: 14% of Kansas adults 18 years old and older said they <u>owned</u> drones as of October, 2018. This percentage translates to about 300,000 Kansas drone owners. And this number does not account for the number of Kansans less than 18 who own/borrow drones, nor adults who may not own a drone, but borrow a drone or occasionally fly a drone owned by a family member or friend, and might be interested in accessing KDWPT-managed areas for drone use.

A follow-up question revealed an important and completely plausible situation regarding drone ownership and use. Respondents were asked, during an average year, how often did they operate or fly drones (Table 8). Of the 14% of Kansas adults (300,019) *owning* drones, a majority indicated they operated/flew drones either 1-2 times per year (25%) or 3-8 times per year (about every other month) (34%). And 7% said they didn't operate their drones at all during an average year. So for almost 7 in 10 Kansans owning drones, flying drones is a relatively *infrequent* activity. This infrequency doesn't mean the activity is unimportant to owners, simply that the activity is fairly infrequent. There is, however, what might be considered a core enthusiast group—about 10% (30,225)—who said they flew their drones 25 or more times a year, or about once a week or more.

Table 8. "During an average year, how often do you operate or fly drones?" (weighted population).

		Do you own a drone?						
		Y	es	I	Total			
During an	0 times	7%	19,793	92%	1,673,288	1,693,081	80%	
average year,	1-2 times	25%	76,256	8%	138,719	214,975	10%	
how often do	3-8 times (about every other month)	34%	102,610	1%	11,546	114,155	5%	
you operate	9-15 times (about every month)	15%	43,792	0%	2,608	46,400	2%	
or fly drones?	16-24 times (about twice a month)	9%	27,342	0%	0	27,342	1%	
	25+ times (about once a week or more)	10%	30,225	0%	0	30,225	1%	
	Total	100%	300,019	100%	1,826,160	2,126,179	100%	

But the completely plausible situation this question revealed is that *drone operators* <u>need not own</u> drones to fly them (Table 8). Fully 8% (138,719) of respondents who did not own drones indicated they operated drones 1-2 times a year, and 1% (11,546) said they operated drones about every other month. This group (in total, 150,265) probably represents a constituency that has, for better or ill, tried their hands at drone flight when visiting friends or relatives ("How hard can this be?" as "Uncle Bob" picks up the control of his niece's birthday drone and promptly careens the UAV into the antique mantel clock). Yet these operators (non-owners) have a unique perspective and experience related to drones, possessing a curiosity and awareness of the technology that undoubtedly surpasses that of the general public, but perhaps falls short of the interest and commitment held by Kansans who have actually purchased drones.

This analysis focuses on Kansas adult *drone owners*, with the caveat that the true size of the drone constituency (or group interested in the prospect of using drones on KDWPT lands) quite credibly surpasses the 14% of the Kansas adult citizenry this study revealed actually own drones.

Respondents were asked to express their familiarity with drones and current regulations (Table 9).

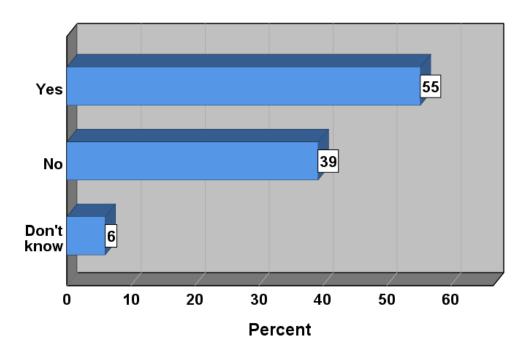
Table 9. "How much do you know about drones, including current regulations?" (weighted population).

Do you own a drone? Yes No Total How much do you A great deal 18% 54,868 2% 33,575 88,443 4% know about Some 41% 121,604 21% 388,981 510,585 24% drones, including 84,787 37% 680,023 A little 28% 764,810 36% current Nothing at all 13% 38,761 40% 723,581 762,342 36% regulations? 300,019 Total 100% 100% 1,826,160 2,126,179 100%

Knowledge of drones and regulations were inversely related to whether a respondent owned a drone. Nearly 6 in 10 (59%) of owners said they knew at least "some" about drones and regulations; (1 in 5 (18%)), "a great deal." Nearly 8 of 10 non-owners (77%) said they knew little or nothing.

Understandably, given this study's focus, emphasis was placed on identifying respondents' awareness of and possible visitation at KDWPT-managed lands (Figure 6). To this end, a map was even included in the survey as a prompt for respondents (Figure 1, p. 7).

Figure 6. "In the last 12 months, have you visited any KDWPT-managed lands, such as state parks, wildlife areas, state fishing lakes, or trails in those areas?" ( $N \approx 2.1$  million) (weighted population).



Fifty-five percent of respondents said they had visited KDWPT lands in the last 12 months. These types of "have-you-visited" questions inevitably generate a measure of skepticism among those who would ask, "Did the respondents *really* know who managed the public lands they

visited, or did they just know it was 'government' land?" In Kansas, that could include, among others, U.S. Fish and Wildlife Service (Refuges), U.S. Forest Service (National Grasslands), National Park Service, local parks, and others. Too, though public land in Kansas is at a premium, the Kansas "Walk-in Access" program is unarguably among the finest in the nation, and these private lands might be perceived by some as "public." Finally, "in the last 12 months" stretches the potential for overestimation even more—a visit anytime in the relatively recent past—even years past—could transmute to "the last 12 months."

The 55% of Kansas adults who said they visited KDWPT lands in the last 12 months converts to about 1.2 million visitors. Interestingly, unless actual visitation estimates are kept at each KDWPT area and then summed over a year (and adjusted to estimate "unique" or "individual" visitors), any finding (such as 55%) is possible.

But as for skepticism over the public's land-management awareness, a study of Indiana residents conducted by Purdue University and DJ Case asked respondents if they had visited Indiana State Forests (yes/no). If "yes" (72% of respondents), they were asked to actually "name the Forest/s." The ability of respondents to name specific Indiana State Forests they said they visited was notable, and though numerous of the areas mentioned were not State Forests, many were at least areas managed by the Indiana Department of Natural Resources in which the Indiana Division of Forestry is nested. This exercise dispelled some measure of skepticism that respondents were unaware of where they visited. (https://www.in.gov/dnr/forestry/files/fo-Indiana Woodland Monitor-2009.pdf)

Another estimate of attendance at KDWPT-managed lands was obtained by asking about annual park passes (State Parks only one type of area managed by KDWPT). (Table 10).

Table 10. Do you have an annual pass to enter Kansas State Parks, by respondent visitation to KDWPT-managed lands in the last 12 months (weighted population).

Do you have an annual pass to enter Kansas state parks?

		Υ	es		No	Don'	t know	Total
In the last 12 months, have you	Yes	23%	274,959	74%	875,348	2%	24,702	1,175,008
visited any KDWPT-managed	No	4%	34,360	95%	789,926	1%	10,504	834,791
lands, such as state parks,	Don't know	4%	4,375	84%	97,721	12%	14,283	116,380
wildlife areas, state fishing lakes,	Total	15%	313.694	83%	1.762.995	2%	49.489	2,126,179
or trails in those areas?		- 7.0	,		, ==,==		-,	, 5,115

A reasonable assumption is that respondents would have solid recall on whether they had purchased annual passes to enter Kansas State Parks in the last 12 months. Of those who said they had visited KDWPT-managed lands in the last 12 months, 23% (274,959) said they had purchased annual passes. Interestingly, though not inconceivably, of those who said they had not visited KDWPT-managed lands, 4% (34,360) said they had indeed purchased annual passes to Kansas State Parks (not unlike purchasing a Federal Duck Stamp (year-after-year) with every intention of going waterfowl hunting, but never actually going); and 4% (4,375) of those who

said they didn't know if they had visited KDWPT-managed lands said they purchased annual park passes. Considering the entire Kansas adult population, over 300,000 (313,694) said they had an annual pass to entire Kansas state parks.

Selected outdoor interests of respondents were measured (Table 11).

Table 11. "Do you consider yourself to be any of the following?" (weighted population), (N = 2,126,179). Notice that question wording asks respondents if they think of themselves as participants in the following activities, versus participation in any single year. But comparisons to single-year participation estimates are insightful (as with "angling" and "hunting"). For example, more Kansans consider themselves "hunters" than go afield in one year (at least as estimated for 2011, the most recent year for which Kansas state data were available)).

Walker	Yes	49%	1,049,626
Camper	Yes	36%	756,833
Hiker	Yes	27%	576,189
Angler	Yes	17% <sup>a</sup>	350,981
Photographer	Yes	20%	414,735
Wildlife (bird) watcher	Yes	17%	370,526
Runner/Jogger	Yes	14%	295,691
Bicyclist	Yes	13%	284,489
Hunter	Yes	13% <sup>b</sup>	274,032
Boater	Yes	10%	216,832
Horseback rider	Yes	7%	145,390
Paddler (like kayaker)	Yes	6%	124,321
Disc golfer	Yes	5%	103,698
Environmental educator	Yes	1%	23,164
None of the above	Yes	21%	449,094

- U.S. Census Bureau 2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation estimated 20% of the Kansas citizenry 16 years and older went fishing in 2011.
- U.S. Census Bureau 2011 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation estimated 8% of the Kansas citizenry 16 years and older went hunting in 2011.

Consideration was given to whether drone ownership varied by the foregoing hobbies or interests (Table 12).

Table 12. Drone ownership by interest (weighted population) (N = Total number of participants in each activity).

Doy	ou/	own	а	drone?a	
-					

		Yes		N	Total	
Camper	Yes	22%	165,684	78%	591,148	756,833
Walker	Yes	15%	154,065	85%	895,561	1,049,626
Hiker	Yes	21%	120,505	79%	455,683	576,189
Angler	Yes	25%	89,241	75%	261,740	350,981
Photographer	Yes	20%	83,307	80%	331,428	414,735
Hunter	Yes	30%	80,972	70%	193,059	274,032
Runner/Jogger	Yes	27%	78,521	73%	217,170	295,691
Bicyclist	Yes	25%	71,392	75%	213,097	284,489
Wildlife (bird) watcher	Yes	19%	71,294	81%	299,232	370,526
Boater	Yes	31%	68,198	69%	148,635	216,832
Disc golfer	Yes	39%	40,704	61%	62,995	103,698
Horseback rider	Yes	27%	38,924	73%	106,466	145,390
Paddler (like kayaker)	Yes	25%	31,225	75%	93,096	124,321
Environmental educator	Yes	13%	2,971	87%	20,193	23,164

a. Respondents can participate in multiple activities.

Drone ownership among respondents who indicated participation in selected outdoor activities was higher than ownership in the Kanas general public (14%). Drone ownership by outdoor activity exceeded the general citizenry's percent ownership in 13 of 14 activities about which respondents were asked (Table 12). Highest <u>absolute number</u> of owners was among campers (22% of campers, <u>165,684</u>), followed closely by "walker" (15% of walkers, <u>154,065</u>) then "hiker" (21% of hikers, <u>120,505</u>), with lowest ownership, among those who described themselves as "environmental educators" (13%, <u>2,971</u>). Curiously, the <u>highest relative number</u> of owners was "disc golfer" (<u>39%</u>, or 40,704).

Explanations might be presented for discussion or speculation. Perhaps camping presents "down-time" when one's attention could easily be occupied by flying a UAV, exploring the campsite and surrounding area (if the drone is camera-equipped), or just enjoying operating the drone in the vicinity of the campsite. And both hands are available for drone control. Similarly, maybe walking lends itself easily to drone use—gaining a panoramic view of surrounding places and features, testing one's drone-flying skills, perhaps engaging conversation with curious neighbors or onlookers at a campground or picnic area who otherwise would never bother to interact with one another. Again, both hands are available for drone control. The third-ranking activity, hiking (120,505 drone owners) may offer varied opportunities for drone use as well—"pathfinding" the trail ahead, sending the drone over vistas (while looking back at the hiker/s, assuming camera payload)—but depending on the

type of hiking (rugged versus easier terrain), actual deployment and control of the drone would vary in difficulty. Noteworthy is the finding that those respondents who considered themselves "photographers" showed 20% (83,307) drone ownership. Photographers would seem to be the very group appreciative of the unique visual perspective that drones afford, if cameraequipped. But why do nearly 4 in 10 disc golfers own a drone? Interest in hover technology?

Respondents were grouped by selected background or classification variables to see if a stereotypical Kansas drone owner emerged (Table 13). Recalling that 14% of the Kansas adult population 18 years and older indicated drone ownership, percentages notably higher than 14% would warrant consideration. For example, drone owners tended to be younger (18-44 years), with adults in the 18-24 year category being most likely to own drones (26%). Males were much more likely to own drones (20%) than females (8%). Interestingly, though Hispanic-Latino Kansans were a relatively small proportion of the total population (6%), they owned drones at a substantially higher percentage (29%) than the general population. And Kansans who had some familiarity with KDWPT tended to own drones at a higher proportion than the citizenry at large; 19% for those who said they visited KDWPT-managed lands, and 31% for those saying they had annual park passes.

## Results: Respondent perceptions of drones on KDWPT-managed lands

Respondents were presented an introductory explanation that drones can be used for a variety of purposes of KDWPT-managed lands (such as State Parks and wildlife areas). Nine potential applications of drone technology were then offered to respondents, with survey participants asked to express their degree of opposition or support for each of the applications (Table 14).

Respondents gave clear support to six drone applications that KDWPT might use for land and resource management, as well as public safety, ranging from "search and rescue" (86% "support" or "strongly support") to "manage wildlife and habitat" (64% "support" or "strongly support"). The remaining three drone applications (for recreational use) were supported to a lesser extent, but with relatively large numbers of respondents answering "neutral" (particularly for "flying drones just for fun" (41%)), and relatively small numbers of respondents expressing outright opposition. These respondents responding "neutral" should by no means be disregarded—they're genuinely undecided on the question at hand, and for that reason are an influential clientele; their yet-to-be determined opinions could sway public sentiment toward drones, one direction or the other. But for purposes of some analyses, they must be set aside momentarily.

For example, another way to evaluate these data was to calculate mean scores based on respondents' answers, and rank these scores from highest to least support, but in this case, eliminating "neutral" responses and using only those answers in which support or opposition was expressed (Table 15). "Word anchors" (or "easy English") were then be assigned to these mean scores based on the rule of rounding. Specifically, in a 4-point scale where "4" equates with "strongly support" and "1" equates with "strongly oppose," a mean score of 3.652 for "search and rescue" rounds to "4," or "strongly support" (Table 15).

Table 13. Ownership of drones among Kansas adults 18 years and older, by selected background characteristics (weighted population).

Do you own a drone?

	Do you own a drone?					
		Yes	S		No	Total
What is your age?	18-24	26%	74,915	74%	213,244	288,159
	25-34	22%	81,519	78%	296,201	377,720
	35-44	21%	72,638	79%	274,035	346,673
	45-54	10%	39,537	90%	366,727	406,264
	55-64	7%	22,656	93%	308,591	331,247
	65 and older	2%	8,753	98%	367,363	376,116
What is your gender?	Male	20%	210,831	80%	831,948	1,042,779
	Female	8%	89,189	92%	994,211	1,083,400
Which best represents	African American or Black	13%	12,492	87%	80,280	92,772
ethnic or racial	Hispanic or Latino	29%	37,242	71%	91,019	128,261
background?	Asian	19%	7,330	81%	30,909	38,239
	Caucasian or White	13%	220,513	87%	1,502,382	1,722,895
	Native American or Pacific Islander	16%	7,788	84%	39,697	47,485
	Two or more races	12%	6,983	88%	52,980	59,962
	Prefer not to answer	21%	7,671	79%	28,893	36,565
Metro or non-metro	Urban	16%	219,490	84%	1,118,344	1,337,834
county	Rural	10%	80,530	90%	707,816	788,345
In the last 12 months,	Yes	19%	220,369	81%	954,639	1,175,008
have you visited any	No	8%	69,701	92%	765,090	834,791
KDWPT-managed	Don't know	9%	9,948	91%	106,431	116,380
lands [etc.]?  Do you have an annual	Yes	31%	98,279	69%	215,415	313,694
pass to enter Kansas	No	11%	190,357	89%	1,572,638	1,762,995
state parks?	Don't know	23%	11,382	77%	38,107	49,489
During an average	0 times	1%	19,793	99%	1,673,288	1,693,081
year, how often do you	1-2 times	35%	76,256	65%	138,719	214,975
operate or fly drones?	3-8 times (about every other month)	90%	102,610	10%	11,546	114,155
	9-15 times (about every month)	94%	43,792	6%	2,608	46,400
	16-24 times (about twice a month)	100%	27,342	0%	0	27,342
	25+ times (about once a week or	100%	30,225	0%	0	30,225
	23+ liffles (about office a week of					

Table 14. Respondents' sentiment toward nine specific applications of drone technology on KDWPT-managed lands (N = 2,126,179) (weighted population). "For each of the potential uses, indicate your support/opposition."

	Strongly				Strongly
Your support/opposition for using drones to <sup>a</sup>	oppose	Oppose	Neutral	Support	support
Search and rescue	2%	2%	11%	20%	66%
Combat fires	3%	2%	15%	26%	54%
Inspect infrastructure like power lines, pipelines, dams	3%	4%	20%	39%	35%
Surveying and mapping land and water	2%	2%	19%	43%	34%
Conduct scientific research	3%	4%	30%	36%	27%
Manage wildlife and habitat	4%	4%	28%	40%	24%
Photography (recreational)	4%	10%	34%	29%	23%
Video (recreational)	5%	12%	39%	27%	17%
Flying drones just for fun	9%	14%	41%	22%	14%

a. Ranked from highest to least support by "Strongly support."

Table 15. Respondents' sentiment toward nine specific applications of drone technology on KDWPT-managed lands, based on drone ownership (yes/no), eliminating those who expressed "neutral" opinion toward the nine applications (weighted population). "For each of the potential uses, indicate your support/opposition." Means based on scores of 4 = "Strongly support," 3 = "Support," 2 = "Oppose," 1 = "Strongly oppose." Means ranked using rule of rounding from highest support among drone owners to lowest support.

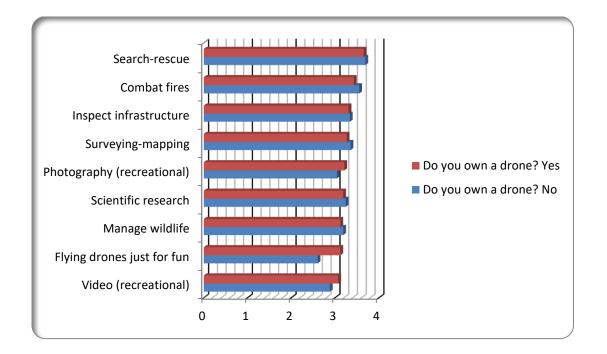
Do	you	own	а	drone?	
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	Yes			No			
	Mean	Valid N	Word anchor	Mean	Valid N	Word anchor	
Search and rescue	3.652	256,625	Strongly support	3.690	1,642,339	Strongly support	
Combat fires	3.427	249,927	Support	3.551	1,560,390	Strongly support	
Inspect infrastructure like power lines, pipelines, dams	3.308	251,979	Support	3.337	1,456,867	Support	
Surveying and mapping land and water	3.266	249,107	Support	3.353	1,463,608	Support	
Photography (recreational)	3.211	227,063	Support	3.041	1,179,996	Support	
Conduct scientific research	3.185	228,934	Support	3.245	1,260,371	Support	
Manage wildlife and habitat	3.121	245,344	Support	3.186	1,279,605	Support	
Flying drones just for fun	3.120	225,038	Support	2.602	1,021,361	Support	
Video (recreational)	3.073	213,181	Support	2.882	1,084,180	Support	

By eliminating respondents who answered "neutral" regarding their support or opposition to nine possible drone applications—and by looking at support or opposition by whether respondents owned a drone—insightful findings emerged. On average, all applications were

supported by respondents, with the highest ranking for both drone owners and non-owners assigned to "search and rescue." Perhaps predictably, the two applications where drone owners and non-owners appeared to differ most (by mean score) were "flying drones just for fun" and "video (recreational)" (Figure 7). In fact, by the rule of rounding, for non-owners, "flying drones just for fun" ( $\overline{X}$  = 2.602) came within roughly 1/10<sup>th</sup> of the score ( $\overline{X}$  = 2.49) that would have carried with it the word anchor of "opposed." "Flying drones just for fun" and "video (recreational)" were the two lowest mean scores for drone owners, but not nearly so low as for non-owners; so drone owners exhibited greater support for fun and photographic uses of drones, more so than non-owners.

Figure 7. Respondents' sentiment toward nine specific applications of drone technology on KDWPT-managed lands, based on drone ownership (yes/no), eliminating those who expressed "neutral" opinion toward the nine applications (weighted population). "For each of the potential uses, indicate your support/opposition." Means based on scores of 4 = "Strongly support," 3 = "Support," 2 = "Oppose," 1 = "Strongly oppose." Means ranked using rule of rounding from highest support among drone owners to lowest support. See Table 15 for N sizes.



In any case, the Kansas citizenry—at least those willing to express a sentiment toward drone uses—solidly support the use of UAVs for science, management, and public safety. But reemphasizing, relatively large percentages of the Kansas general public remain "neutral" on appropriate applications of drones, especially recreational uses.

Support for drone use was examined from the standpoint of outdoor interests and activities expressed by respondents (Table 16). Eliminated from this analysis were those expressing "neutral" sentiment toward drones. Categories of "strongly oppose" and "oppose" were combined, as were "strongly support" and "support," yielding "oppose" and "support."

Table 16. Percent support for drone uses. See Table 11 for group N sizes (weighted population).

		Manage	Search and		Inspect	Scientific
		wildlife	rescue	Combat fires	infrastructure	research
		Support	Support	Support	Support	Support
		Row N %	Row N %	Row N %	Row N %	Row N %
Hunter	Yes	88%	98%	96%	92%	89%
Angler	Yes	88%	98%	96%	95%	92%
Camper	Yes	91%	96%	94%	89%	87%
Paddler (like kayaker)	Yes	94%	97%	96%	94%	96%
Boater	Yes	84%	96%	95%	88%	87%
Hiker	Yes	91%	96%	94%	90%	89%
Walker	Yes	91%	97%	93%	92%	92%
Runner/Jogger	Yes	88%	96%	91%	86%	85%
Wildlife (bird) watcher	Yes	91%	97%	97%	91%	92%
Photographer	Yes	90%	96%	94%	90%	92%
Environmental educator	Yes	91%	100%	93%	80%	92%
Bicyclist	Yes	87%	97%	94%	90%	91%
Horseback rider	Yes	87%	92%	89%	81%	82%
Disc golfer	Yes	95%	100%	97%	100%	90%

Table 16 (continued).

		Photography	Video		Surveying-
		(recreational)	(recreational)	Fun flying	mapping
		Support	Support	Support	Support
		Row N %	Row N %	Row N %	Row N %
Hunter	Yes	81%	70%	55%	98%
Angler	Yes	73%	68%	68%	94%
Camper	Yes	75%	67%	63%	93%
Paddler (like kayaker)	Yes	80%	73%	63%	94%
Boater	Yes	78%	73%	67%	93%
Hiker	Yes	77%	68%	57%	94%
Walker	Yes	80%	71%	60%	97%
Runner/Jogger	Yes	84%	80%	63%	95%
Wildlife (bird) watcher	Yes	73%	69%	60%	92%
Photographer	Yes	85%	75%	64%	97%
Environmental educator	Yes	81%	57%	69%	100%
Bicyclist	Yes	83%	76%	66%	95%
Horseback rider	Yes	67%	63%	53%	92%
Disc golfer	Yes	94%	87%	73%	95%

Outdoor participants showed virtual unanimous support for drones deployed for science and safety. Only when asked to express sentiment toward use of recreational applications of UAVs did support waiver; in fact, support for recreational use of drones dropped consistently among all types of outdoor participants. For example, nearly all hunters (98%) supported use of drones for "search and rescue," but a bare majority (55%) endorsed use of "flying drones just for fun" ("fun flying"). Even less supportive for "fun flying" were horseback riders (53% support). One can imagine how hunters and horseback riders could perceive inevitable conflict between their activities and drones overhead or in the vicinity.

Curiously, even among campers, walkers, and hikers, the three outdoor participant groups for whom drone ownership was most common, support for recreational drone use was far from unanimous, with only 63% of campers supporting "flying drones just for fun," 60% of walkers supporting fun flying, and 57% of hikers supporting "flying drones just for fun."

INSIGHT: Drone use on KDWPT-managed areas for science, management, and safety is widely supported among the Kansas citizenry and outdoor recreationists. Recreational use of drones, however, does not enjoy the same level of support. In fact, though *opposition* to recreational use of drones was *not* in the majority, substantial numbers of the public and outdoor interest groups expressed some reservations to recreational drone use, especially hunters and horseback riders. Policy must recognize that there is potential for conflict among recreational user groups stemming from UAVs. One solution may be to "zone" drone use from other activities using space (proximity) and time (scheduling).

Respondents were asked the degree to which use of drones for nine activities might affect their visitation at KDWPT-managed lands; first, the general public was of interest (Table 17).

Table 17. Consequence of drone use on Kansans' visitation to KDWPT-managed lands (N = 2,126,179) (weighted population). "For each of the potential uses, [would you] visit more, less, or the same?"

If drones were used on KDWPT-managed					
lands, would you visit more, less, or the	Much		No		Much
same? <sup>a</sup>	less	Less	change	More	more
Search and rescue	1%	2%	69%	17%	11%
Surveying and mapping land and water	2%	1%	79%	11%	7%
Combat fires	2%	2%	72%	15%	9%
Inspect infrastructure like power lines,	2%	3%	77%	12%	7%
pipelines, dams					
Conduct scientific research	2%	3%	79%	10%	6%
Manage wildlife and habitat	3%	3%	78%	11%	5%
Photography (recreational)	4%	7%	69%	12%	7%
Video (recreational)	5%	8%	71%	11%	5%
Flying drones just for fun	8%	11%	67%	8%	5%

a. Ranked from highest percentage combining "No change," "More," and "Much more."

Few respondents said their visitation to KDWPT-managed lands would be reduced if drones were deployed for science and management applications. Indeed, for all nine UAV uses listed, majorities of respondents said there would be "no change" in visitation (and even "more" or "much more") if drone use was authorized. This finding is in concordance with the degree of support expressed for drone uses by the public at large and outdoor recreationists.

These data provided first indication that drone use would be welcomed by some visitors, with fully 28% of respondents saying that, if drones were used for "search and rescue," they would visit KDWPT-managed lands "more" (17%) or "much more" (11%).

INSIGHT: Respondents appeared to indicate that drone technology might actually enhance or increase their visitation to KDWPT-managed lands, presumably by adding a new layer of safety through search and rescue capability in the event of an emergency.

Yet again, the activities with greatest potential adverse impact on visitation were "recreational" use of drones, with roughly 1 in 10 respondents saying they would visit KDWPT-managed lands "less" or "much less" if drones were used for recreational "photography" and "video," and 1 in 5 responding they would visit "less" or "much less" if "flying drones just for fun" was permitted.

A second sub-population of interest regarding possible impact of drones on visitation was that group indicating they had visited KDWPT-managed lands in the last 12 months (Table 18).

Table 18. Consequence of drone use on visitation by Kansans' who said they visited KDWPT-managed lands in the last 12 months (N = 1,175,008) (weighted population). "For each of the potential uses, [would you] visit more, less, or the same?" (Categories of "Much less" and "Less" combined, and "Much more" and "More" combined.)

In the last 12 months, have you visited any KDWPT-managed lands, such as state parks, wildlife areas, state fishing lakes, or trails in those areas?<sup>a</sup>

Yes (N = 1,175,008)

	Le	ess	No change			More
Flying drones just for fun	23%	269,534	62%	722,688	16%	182,787
Video (recreational)	15%	176,389	66%	778,541	19%	220,078
Photography (recreational)	14%	161,400	65%	763,109	21%	250,499
Manage wildlife and habitat	6%	76,329	75%	882,844	18%	215,835
Inspect infrastructure	5%	64,176	73%	861,863	21%	248,969
Conduct scientific research	5%	60,042	76%	898,771	18%	216,195
Combat fires	4%	46,995	68%	794,369	28%	333,643
Surveying and mapping	4%	42,126	76%	894,856	20%	238,026
Search and rescue	2%	23,840	66%	777,595	32%	373,573

a. Ranked from highest percentage for "Less."

Of the roughly 1.2 million Kansans who said they visited KDWPT-managed lands, greatest loss of potential visitation (23% "less") would stem from KDWPT allowing "flying drones just for fun." Earlier discussion acknowledged that the absolute estimate of 1.2 million visitors to KDDWPT-managed lands in a 12-month period might be treated cautiously. However, the relative finding that 23% of stated visitors to KDWPT-managed lands would visit less if drone piloting for fun were allowed holds vital implications for drone policy.

A third sub-population of interest regarding effects of drone use on visitation is that group indicating they have annual passes to enter Kansas State Parks (Table 19).

Table 19. Consequence of drone use on visitation by Kansans' who said they have annual passes to Kansas State Parks (N = 313,694) (weighted population). "For each of the potential uses, [would you] visit more, less, or the same?" (Categories of "Much less" and "Less" combined, and "Much more" and "More" combined.)

Do you have an annual pass to enter Kansas state parks?<sup>a</sup>

	Yes (N = 313,694)							
	Les	SS	No ch	nange	More			
Flying drones just for fun	19%	59,892	54%	169,430	27%	84,373		
Video (recreational)	17%	52,069	55%	172,223	28%	89,402		
Photography (recreational)	14%	43,281	60%	187,022	27%	83,392		
Manage wildlife and habitat	12%	38,812	63%	196,844	25%	78,039		
Inspect infrastructure	10%	32,759	64%	199,779	26%	81,157		
Combat fires	8%	25,367	58%	183,219	34%	105,108		
Conduct scientific research	7%	22,526	66%	206,058	27%	85,110		
Surveying and mapping	4%	13,208	68%	213,462	28%	87,025		
Search and rescue	3%	9,709	61%	192,107	36%	111,878		

a. Ranked from highest percentage for "Less."

And again, the recurring theme emerged of somewhat diminished visitation at KDWPT-managed lands if recreational use of drones is sanctioned. A few respondents indicated they would visit KDWPT-managed lands less even if drones were used for "search and rescue"—a rather thorough rejection of any latitude for drones.

A fourth sub-population holding a unique perspective on visitation to KDWPT-managed lands are drone owners themselves (Table 20). Notably, about one-third of drone owners said they would visit KDWPT-managed lands "More" across all types of drone use. But roughly 1 in 10 drone owners said they would visit KDWPT-managed lands "less" across all nine of the proposed drone applications, suggesting even the sub-population of drone owners has a "purist" element that simply perceives drone use for any reason as inappropriate on KDWPT-managed areas. Or another speculative explanation is that these "purists" simply would prefer not to interact with novice drone pilots who might be more collision-/crash-prone.

Table 20. Consequence of drone use on visitation by Kansans' who said they owned drones (N = 300,019) (weighted population). "For each of the potential uses, [would you] visit more, less, or the same?" (Categories of "Much less" and "Less" combined, and "Much more" and "More" combined.)

#### Do you own a drone?<sup>a</sup>

	Less		No cl	nange	More	
Flying drones just for fun	15%	45,310	52%	156,174	33%	98,535
Photography (recreational)	14%	41,270	52%	154,947	35%	103,803
Video (recreational)	13%	40,393	53%	160,488	33%	99,138
Manage wildlife and habitat	10%	30,061	60%	181,375	30%	88,583
Inspect infrastructure	8%	23,579	61%	184,434	31%	92,006
Combat fires	7%	21,886	58%	173,240	35%	104,893
Conduct scientific research	7%	21,764	63%	189,429	30%	88,826
Search and rescue	6%	19,006	60%	180,708	33%	100,305
Surveying and mapping	5%	15,289	63%	188,752	32%	95,978

a. Ranked from highest percentage for "Less."

INSIGHT: The finding that 19,000 drone owners would reduce their visitation to KDWPT-managed lands if drone use was allowed for even "search and rescue" affirms the idea that any policy that KDWPT develops for drones will not please all members of the public—not even drone pilots.

The impacts of six possible issues associated with allowing drone flights were examined. First, the perceptions or sentiment of Kansas adults were analyzed (Table 21).

Table 21. Perceived effects of drone use expressed by Kansas adults. "For some people, drones bother them a lot. For others, drones do not bother them at all. If drones were allowed at KDWPT-managed lands, how much would each of the following bother you?" (N = 2,126,179) (weighted population). Ranked from highest answering "A great deal."

	Not at				A great	Don't
How much would each bother you	all	A little	Somewhat	A lot	deal	know
Feeling less privacy	16%	20%	27%	13%	20%	4%
Concern about potential disturbance to wildlife	23%	19%	24%	12%	17%	5%
Loss of wild places	31%	16%	19%	10%	16%	7%
Concern for my safety	42%	20%	17%	6%	9%	6%
Hearing them	35%	23%	22%	5%	9%	6%
Seeing them	49%	18%	16%	6%	6%	5%

Most bothersome to the Kansas adult population if drones were allowed at KDWPT-managed lands were "feeling less privacy" (13% "A lot," and 20% "A great deal)," and "concern about potential disturbance to wildlife" (12% "A lot," and 17% "A great deal"). A subtle but profound difference exists between "feeling less privacy" and the third-most bothersome issue, "Loss of

wild places" (10% "A lot," and 16% "A great deal"). Opportunities to escape to nature and the outdoors, and experience the solitude and therapeutic benefits of nature are fundamental to human health and productivity. Here, these respondents were perhaps anxious that the "wildness" of nature might be sacrificed to drone use. Still, substantial numbers of Kansas adults said they would be affected only "A little" or "Not at all" by the presence of drones. Majorities of the Kansas adult population said that even hearing or seeing drones would bother them only "A little" or "Not at all."

Perhaps a more meaningful and most informed appraisal of the impact of drones on other recreational activities is revealed by focusing on the "attentive" public comprised of Kansas outdoor participants. Mean scores were calculated and word anchors assigned by rule of rounding to possible impacts for each of 14 outdoor user groups (Table 22). Of these groups, ranging from "hunter" to "disc golfer," all indicated they would be "somewhat" bothered by drones, marked by "feeling less privacy," concern over "potential disturbance to wildlife," and "loss of wild places." Paddlers (such as kayakers) were even more pointed in their evaluation, saying they would be bothered "a lot" by drones infringing their privacy.

Ironically, even drone owners felt the same way as other recreational user groups regarding the potential impact of drones if allowed on KDWPT-managed lands (Table 23). They were "somewhat" bothered over "feeling less privacy," "potential disturbance to wildlife," and "loss of wild places." In fact, drone owners said they even would be bothered "a little" over "concern for my safety," "hearing" drones, and "seeing" drones. Perhaps drone operators are among those in the most experienced position to know and anticipate the capabilities and effects of the technology on others.

INSIGHT: No outdoor recreational user group said that they would be "not at all" bothered by the presence of drones. In fact, adult Kansas drone owners themselves reflected the same concerns of 14 other Kansas outdoor user groups when they indicated they would be "somewhat" bothered if drones were allowed at KDWPT-managed lands, with chief concerns of "feeling less privacy," "potential disturbance to wildlife," and "loss of wildlife places." Drone operators' presence on a KDWPT planning team for drone policy would add depth and understanding to the groups' deliberations.

Respondents were invited to express in their own words their concerns over the presence of drones. Selected open-ended responses follow in response to the question, "If drones were allowed at KDWPT-managed areas, how much would each of the following bother you?"

<sup>&</sup>lt;sup>3</sup> See "Nature of Americans." www.natureofamericans.org

Table 22. Perceived impacts of drone use. "For some people, drones bother them a lot. For others, drones do not bother them at all. If drones were allowed at KDWPT-managed lands, how much would each of the following bother you?" Means based on scores of 5 = "A great deal," 4 = "A lot," 3 = "Somewhat," 2 = "A little," and 1 = "Not at all." "Don't know" responses eliminated for purposes of this analysis. Word anchors assigned by rule of rounding mean scores. Respondents could check as many outdoor activities as appropriate. See Table 11 for N sizes.

					Potential		
		Hearing	Seeing	Feeling less	disturbance	Loss of wild	Concern for
		them	them	privacy	to wildlife	places	my safety
User group		Mean	Mean	Mean	Mean	Mean	Mean
Hunter	Yes	2.364	2.147	3.425	2.875	2.763	2.241
	Word anchor	A little	A little	Somewhat	Somewhat	Somewhat	A little
Angler	Yes	2.162	2.049	3.160	2.895	2.685	2.045
	Word anchor	A little	A little	Somewhat	Somewhat	Somewhat	A little
Camper	Yes	2.269	2.027	3.178	2.925	2.718	2.191
	Word anchor	A little	A little	Somewhat	Somewhat	Somewhat	A little
Paddler (like	Yes	2.702	2.210	3.581	3.186	3.157	2.454
kayaker)	Word anchor	Somewhat	A little	A lot	Somewhat	Somewhat	Somewhat
Boater	Yes	2.363	2.114	3.062	2.814	2.782	2.369
	Word anchor	A little	A little	Somewhat	Somewhat	Somewhat	A little
Hiker	Yes	2.338	2.046	3.112	3.112	2.892	2.124
	Word anchor	A little	A little	Somewhat	Somewhat	Somewhat	A little
Walker	Yes	2.267	1.955	3.040	2.841	2.602	2.176
	Word anchor	A little	A little	Somewhat	Somewhat	Somewhat	A little
Runner/Jogger	Yes	2.316	1.958	3.060	2.816	2.703	2.206
	Word anchor	A little	A little	Somewhat	Somewhat	Somewhat	A little
Wildlife (bird)	Yes	2.551	2.288	3.391	3.256	3.119	2.478
watcher	Word anchor	A little	A little	Somewhat	Somewhat	Somewhat	A little
Photographer	Yes	2.341	1.960	3.162	3.036	2.813	2.389
	Word anchor	A little	A little	Somewhat	Somewhat	Somewhat	A little
Environmental	Yes	2.318	1.778	2.541	2.950	3.193	1.949
educator	Word anchor	A little	A little	Somewhat	Somewhat	Somewhat	A little
Bicyclist	Yes	2.437	1.983	3.267	2.847	2.754	2.308
	Word anchor	A little	A little	Somewhat	Somewhat	Somewhat	A little
Horseback rider	Yes	2.372	2.019	3.287	3.133	3.091	2.870
	Word anchor	A little	A little	Somewhat	Somewhat	Somewhat	A little
Disc golfer	Yes	2.227	1.584	2.914	2.685	2.796	2.089
	Word anchor	A little	A little	Somewhat	Somewhat	Somewhat	A little

Table 23. Perceived impacts of drone use, expressed by drone owners. "For some people, drones bother them a lot. For others, drones do not bother them at all. If drones were allowed at KDWPT-managed lands, how much would each of the following bother you?" Means based on scores of 5 = "A great deal," 4 = "A lot," 3 = "Somewhat," 2 = "A little," and 1 = "Not at all." "Don't know" responses eliminated for purposes of this analysis. Respondents could check as many outdoor activities as appropriate. N = 300,019.

	Do you own a drone?		
	Yes	Word	
How much would each of the following bother you?	Mean	Anchor	
Feeling less privacy	3.112	Somewhat	
Concern about potential disturbance to wildlife	2.693	Somewhat	
Loss of wild places	2.487	Somewhat	
Concern for my safety	2.164	A little	
Hearing them	2.107	A little	
Seeing them	1.816	A little	

Survey respondents offered the following selected observations on the potential bother (or help) drones might present on KDWPT-managed lands (lightly edited).

- ✓ Intrusion to animal sanctuaries
- ✓ Annoyance
- ✓ Worry of being watched through camera; me or my children
- ✓ Concern if drone breaks or crashes, and associated disturbances
- ✓ Concern for security; ugly invasion
- ✓ Disturbance to habitats and wildlife
- ✓ Debris from drones and users
- ✓ Feeling uneasy with drones possibly present
- ✓ Getting hit
- ✓ Helpful in emergency or rescue
- ✓ Need to consider how many drones will be allowed
- ✓ I enjoy the privacy of fishing on my own, not having something flying over my head nor knowing who is watching
- ✓ Injury to users or onlookers
- ✓ Range of misuses
- ✓ Inappropriate or unwanted photography
- ✓ Invasion of privacy
- ✓ Property damage
- ✓ Spying on campers
- ✓ Terrorism

Respondents were presented with the idea that drones can be operated by many types of people, and asked how their feelings toward drone use in KDWPT-managed lands might change depending on the operator and operator's competence (Table 24).

Table 24. Change in feelings of drone owner, non-owners, and Kansas general public (weighted population). "Drones can be operated by many types of people. For each of the potential operators listed below, how would your feelings change toward drone use in KDWPT-managed areas?" Drone owners (N = 300,019), non-owners (N = 1,826,160), KS public (N = 2,126,179).

			D	o you ow	n a drone?				
		Ye	Yes No				Total		
KDWPT employees	Much more negative	7%	19,936	3%	60,092	80,028	4%		
(trained and	More negative	5%	14,182	1%	25,499	39,681	2%		
certified)	Same	28%	82,842	32%	589,905	672,747	32%		
	Positive	26%	76,915	36%	660,423	737,338	35%		
	Much more positive	35%	106,144	27%	490,241	596,384	28%		
	Total	100%	300,019	100%	1,826,160	2,126,179	100%		
Law enforcement	Much more negative	6%	19,171	4%	71,145	90,317	4%		
(trained and	More negative	10%	29,230	7%	118,855	148,084	7%		
certified)	Same	25%	74,573	26%	483,876	558,449	26%		
	Positive	27%	80,492	33%	604,873	685,364	32%		
	Much more positive	32%	96,553	30%	547,411	643,964	30%		
	Total	100%	300,019	100%	1,826,160	2,126,179	100%		
Contractors (trained	Much more negative	5%	16,221	3%	49,820	66,041	3%		
and certified)	More negative	7%	21,274	8%	144,771	166,045	8%		
	Same	41%	123,519	42%	766,190	889,709	42%		
	Positive	24%	70,849	33%	608,088	678,937	32%		
	Much more positive	23%	68,156	14%	257,291	325,447	15%		
	Total	100%	300,019	100%	1,826,160	2,126,179	100%		
University staff	Much more negative	2%	7,341	2%	43,543	50,884	2%		
(trained and	More negative	9%	28,450	7%	136,139	164,589	8%		
certified)	Same	37%	110,401	41%	745,554	855,955	40%		
	Positive	26%	78,466	33%	607,136	685,602	32%		
	Much more positive	25%	75,362	16%	293,787	369,149	17%		
	Total	100%	300,019	100%	1,826,160	2,126,179	100%		
Recreationalists (no	Much more negative	15%	44,932	23%	413,869	458,801	22%		
training or	More negative	17%	50,889	28%	511,524	562,413	26%		
certification	Same	39%	117,382	37%	673,057	790,440	37%		
required)	Positive	17%	49,541	8%	154,029	203,570	10%		
	Much more positive	12%	37,274	4%	73,681	110,955	5%		
	Total	100%	300,019	100%	1,826,160	2,126,179	100%		

Pluralities of the Kansas adult population would feel more positive toward the use of drones on KDWPT-managed areas if the drones were operated by trained and certified KDWPT employees, law enforcement staff, contractors, or university staff. But an essential reminder here is that drone use on KDWPT-managed lands for science, management, and safety was revealed to be widely supported among the Kansas citizenry and outdoor recreationists, so presenting the idea that the UAV pilots would be trained and certified was "icing on the cake."

Support for recreational use of drones on KDWPT-managed lands was not so clear, with most Kansans either neutral or supportive of recreational use of drones. Thus, it is only the piloting of drones by recreationalists that must be addressed here, comparing (or cross-tabulating) what Kansans thought about the three recreational uses of drones presented earlier for their consideration to their thinking when informed that no training or certification was required of recreationalist drone operators (Table 25). The underlying assumption for the following analysis is that the response "same" (as to their feelings about recreationalists piloting drones) equates to their sentiment expressed earlier regarding three possible recreational uses of drones on KDWPT-managed areas: recreational photography, recreational video, and flying drones just for fun.

Specifically, as for the recreational use of drones for photography, 299,581 Kansans had earlier expressed opposition to the activity on KDWPT-managed lands. When presented with additional information that the pilot ("recreationalists") did not require training or certification, nearly all of those opposed again expressed negative feelings (224,938) toward recreationalists operating drones (an excellent and affirmative check on the internal consistency or reliability of the survey instrument). A relative few (23,768) actually changed their opinions and expressed positive feelings toward the idea of recreationalists operating UAVs, reducing those outright opposed to recreational drone photography to 275,813. Earlier, 1,107,478 Kansans approved of recreational drone photography; but when informed that recreationalists need no training or certification, 444,844 who had earlier expressed their support now conveyed negative feelings toward recreationalists piloting drones on KDWPT-managed areas. And finally, of the 719,120 Kansans who were "neutral" on the idea of recreational drone photography, 351,433 now said they had negative feelings. In all, 1,072,090 (50%) of Kansas adults expressed negative feelings toward recreationalists flying drones on KDWPT-managed areas with the knowledge that no training or certification was required. That compares to the earlier finding that only 14% of Kansans outright opposed recreational drone photography.

With the foregoing detailed explanation, Table 25 results for "recreational drone video" and "flying drones just for fun" can be summarized more succinctly. Key cells for the following calculations are highlighted in Table 25.

Table 25. NEXT PAGE. Feelings towards recreational drone use for photo/video (weighted population). "Drones can be operated by many types of people. ...Would your feelings change toward drone use in KDWPT-managed areas if drones were operated by recreationalists (no training or certification required)?" (N = 2,126,179). Note: "Much more negative" and "More negative" combined, as were "Much more positive" and "Positive."

			Recreationali	st operator
Photography	Oppose	Negative	75%	224,938
(recreational)		Positive	8%	23,768
		Same	17%	50,875
		Total	100%	299,581
	Support	Negative	40%	444,844
		Positive	20%	223,332
		Same	40%	439,302
		Total	100%	1,107,478
	Neutral	Negative	49%	351,433
		Positive	9%	67,425
		Same	42%	300,262
		Total	100%	719,120
Video	Oppose	Negative	76%	273,093
(recreational)		Positive	5%	19,400
		Same	19%	68,008
		Total	100%	360,502
	Support	Negative	38%	358,847
		Positive	22%	205,464
		Same	40%	372,549
		Total	100%	936,859
	Neutral	Negative	47%	389,274
		Positive	11%	89,661
		Same	42%	349,883
		Total	100%	828,818
Flying drones just	Oppose	Negative	75%	364,840
for fun		Positive	10%	49,982
		Same	15%	71,319
		Total	100%	486,141
	Support	Negative	30%	230,975
		Positive	25%	188,923
		Same	45%	340,359
		Total	100%	760,258
	Neutral	Negative	48%	425,399
		Positive	9%	75,620
		Same	43%	378,761
		Total	100%	879,780

As for recreational drone video, those with negative feelings about recreationalists operating UAVs constituted 273,093 plus 68,008 who "felt the same" as before (presumably, opposing recreational drone video), for a sub-total of 341,101. To this number must be added the 358,847 who earlier had supported recreational video from drones but now expressed negative feelings toward recreationalists operating drones; plus the 389,274 who earlier were neutral on recreational video, but now expressed negative feelings toward recreationalists operating drones, for a total of 1,089,222 (51%) of Kansas adults holding negative feelings toward recreationalists operating drones on KDWPT-managed areas. This 51% negative feeling compares to 17% of Kansans who earlier expressed opposition to drones for recreational video.

"Flying drones just for fun" on KDWPT-managed areas was originally opposed by 364,840 of these voicing negative feelings toward recreationalists piloting drones (no training or certification required), and 71,319 feeling the same as before (presumably, opposed), for a subtotal of 436,159 Kansans feeling negatively about recreationalists piloting drones and originally opposed flying drones just for fun on KDWPT-managed lands. To this number must be added the 230,975 who experienced negative feelings toward recreationalists piloting drones but earlier had expressed support for flying drones just for fun; and finally adding the 425,399 Kansans who said they were neutral about flying drones just for fun, but now felt negatively toward recreationalists flying drones without training/certification. This total is 1,092,533 (52%), compared to the 23% of Kansans who earlier expressed opposition to flying drones on KDWPT-managed areas just for fun.

INSIGHT: Words matter. Kansans' earlier support for recreational use of UAVs on KDWPT-managed areas was greatly diminished when a powerful and persuasive qualifier was introduced: that recreationalist drone pilots required no training or certification. Certainly many Kansans know (or assume) that even hunters are required to take training for certification, or are grandfathered into the ranks of hunting through long experience (age). The paramount point is that policy on recreational use of drones on KDWPT-managed areas should dictate appropriate rules or regulations to be clearly displayed on the areas—reassuring the public—that stipulate, "Drone use on this area is authorized according to the following rules and regulations: ....Violation of these rules and regulations will result in revocation of privileges to operate drones on this area."

Rules for operating drones were the focus of a section in the survey asking respondents about where drones could be appropriately operated, and the suitable distance from area features for drone operation. For this analysis, the most immediate group best able to offer informed recommendations was deemed to be those Kansans who indicated they had visited a KDWPT-managed area in the last 12 months (Table 26). Roughly 1 in 10 responded "don't know" to the series of questions and eliminated for purposes of this analysis.

Most visitors were relatively lenient toward restricted distances for drones. Indeed, the minimum of a "football-field length" accommodated the satisfactory *closest* distance a drone should be allowed to approach all features offered respondents evaluated, from waters bodies

Table 26. Should drones be restricted on certain areas? "If you were visiting a Kansas state park, wildlife management area, or other KDWPT-managed area that allowed drones, are there areas that drones should be restricted?" (N = stated visitors to KDWPT-managed lands in the last 12 months, weighted population).

Note: "Don't know" responses removed for purposes of this analysis. Ranked by highest percent for "No restrictions...".

	No res	trictions	NOT allowed within 100		NOT allowed		NOT allowed		
Area feature	used	near	yards (1 f	ootball field) of	within	¼ mile	within	½ mile	Total
Water Bodies	57%	589,705	17%	170,012	13%	130,858	13%	135,340	1,025,914
Boat Ramps	49%	503,850	24%	244,659	15%	152,303	12%	124,117	1,024,929
Trails	45%	472,104	23%	242,651	16%	166,087	16%	163,096	1,043,938
Shorelines or Beaches	44%	458,378	24%	244,283	13%	139,139	19%	197,302	1,039,102
Parking Lots	37%	380,486	34%	344,238	13%	137,284	16%	160,905	1,022,913
Roads	33%	340,113	36%	369,255	14%	143,999	17%	170,575	1,023,943
Playgrounds	24%	262,556	33%	354,799	16%	170,931	28%	301,757	1,090,043
Campgrounds	22%	245,278	30%	327,299	21%	233,635	26%	286,169	1,092,380

to campgrounds. Pluralities of respondents placed *no restrictions* on water bodies, boat ramps, trails, shorelines or beaches, and parking lots. That said, nearly half of visitors said that drones should be restricted to at least one-quarter mile from playgrounds (44%) and campgrounds (47%). Given that 22% of campers said they owned drones, this distance preference might warrant special reflection.

Another group certainly impacted by UAV restrictions would be drone owners themselves (Table 27).

Table 27. Should drones be restricted on certain areas? (drone owners, weighted population) "If you were visiting a Kansas state park, wildlife management area, or other KDWPT-managed area that allowed drones, are there areas that drones should be restricted?" (N = Kansas adult drone owners). Note: "Don't know" responses removed for purposes of this analysis. Ranked by highest percent for "No restrictions...".

	No res	strictions	NOT allowed within 100		NOT allowed		NOT allowed		
	used	near	yards (1 foc	otball field) of	within ¼ mile		within ½ mile		Total
Water Bodies	56%	141,584	17%	42,268	16%	41,690	11%	28,124	253,667
Trails	51%	137,021	17%	45,472	17%	44,710	15%	41,675	268,878
Shorelines or Beaches	46%	127,801	24%	65,954	12%	32,377	18%	50,489	276,622
Boat Ramps	43%	115,787	21%	57,805	23%	61,393	13%	35,170	270,154
Parking Lots	33%	85,773	40%	106,329	13%	34,452	14%	36,951	263,506
Roads	33%	83,396	38%	97,696	16%	40,242	14%	34,943	256,277
Playgrounds	28%	78,455	37%	105,783	11%	30,954	24%	67,915	283,106
Campgrounds	25%	68,942	32%	89,620	25%	69,580	18%	48,999	277,140

Drone owners' preferences for restrictions were not dissimilar from visitors at large to KDWPT-managed lands, indicating drone owners expectations for access to flight sites would not be unrealistic. Data hinted at a few differences. Drone owners seemed to prefer *lesser* restrictions on trails, playgrounds, and campgrounds, versus visitors. However, drone owners inclined toward *greater* distances from boat ramps and parking lots than visitors.

Respondents' tolerance of the presence of drones was perhaps tested to the limit when the situation was posed of seeing drones while visiting KDWPT-managed lands but not hearing them (Table 28). And here, the question is simple, straightforward, and best asked of two groups: adult Kansans who own drones, and those who do not.

Table 28. Acceptability of seeing drone, but not hearing them (weighted population). "For you, how acceptable is it to see drones while you are visiting KDWPT-managed lands but not hear them?"

		Do you own a drone?					
		Y	'es		No	Total	
For you, how acceptable is it	Totally unacceptable	7%	20,402	7%	120,101	140,504	7%
to see drones while you are	Unacceptable	6%	18,930	8%	147,275	166,205	8%
visiting KDWPT-managed	Neutral	25%	74,788	32%	577,811	652,598	31%
lands but not hear them?	Acceptable	33%	100,295	31%	558,530	658,825	31%
	Totally acceptable	27%	79,602	16%	300,203	379,806	18%
	Don't know	2%	6,002	7%	122,239	128,241	6%
	Total	100%	300,019	100%	1,826,160	2,126,179	100%

Few of the public at large—about 15 in 100—would find the scenario of merely seeing but not hearing drones unacceptable. Curiously, almost the same number of drone owners—13 in 100—would find some offense in visiting a KDWPT-managed area and simply seeing but not hearing drones. Six in 10 (60%) drone owners would find seeing but not hearing drones acceptable, compared to roughly 5 in 10 (47%) of Kansans who do not own drones. Many respondents were neutral on the issue. When respondents were asked if the presence of designated areas within KDWPT-managed lands would make them more or less willing to visit, majorities of drone owners and non-owners said the designated areas would not change their visitation (Table 28). Relatively few said designated areas would make them less willing to visit. And predictably, over one-third (38%) of drone owners said the presence of designated areas within KDWPT-managed lands would make them more willing to visit.

INSIGHT: Self-policing or self-regulation by drone operators—not unlike the extraordinarily successful self-policing by shooters usually displayed at unstaffed, public firearms ranges—should mitigate any negative or depreciative behavior by drone pilots that might discourage public visitation. A solid assumption is that the public trusts KDWPT to develop designated areas for drone use that are safe for all, and accommodate various user groups and area visitors—an assumption that drone pilots should model in their own behavior as well as expect of their fellow drone users.

Table 29. Willingness to visit lands with drone designated areas (weighted population). "If there were designated areas within KDWPT-managed lands for the recreational use of drones, would you be more or less willing to visit?"

Do you own a drone? Yes No Total Much less willing to visit 4% 11,361 6% 109,520 120,881 6% If there were designated areas within KDWPT-Less willing to visit 6% 17,236 10% 174,551 191,787 9% managed lands for the 52% 155,959 No change 67% 1,223,662 1,379,620 65% recreational use of More willing to visit 24% 72,837 13% 236,787 309,624 15% drones, would you be Much more willing to visit 14% 42,627 4% 81,640 124,267 6% more or less willing to 100% 300,019 100% 2,126,179 100% Total 1,826,160 visit?

A final question went to the heart of the matter, asking respondents if they would use designated areas on KDWPT-managed lands (Table 30). A large majority of Kansas drone owners said they likely would use these areas (71%). Even one-third (33%) of current non-owners said they would use the areas, perhaps anticipating a drone purchase or gift—or the chance to merely borrow a drone.

Table 30. Likelihood of drone owners to use drone-approved sites (weighted population). "If there were designated areas on KDWPT-managed lands for the recreational use of drones, would you use these designated areas to fly your drone (currently owned/borrowed drone, or anticipated purchase?").

		Do you own a drone?					
		Y	es		No	Tota	
If there were designated	Very unlikely	1%	3,022	18%	319,627	322,649	15%
areas on KDWPT-managed	Unlikely	5%	14,262	11%	208,847	223,109	10%
lands for recreational use of	Neutral	20%	59,623	28%	515,833	575,456	27%
drones, would you use these	Likely	36%	106,816	22%	395,616	502,432	24%
designated areas to fly your	Very likely	35%	104,297	10%	180,450	284,747	13%
drone (currently	Don't know	4%	11,998	11%	205,787	217,785	10%
owned/borrowed drone, or	Total	100%	300,019	100%	1,826,160	2,126,179	100%
anticipated purchase)?			,		. ,	. ,	

INSIGHT: Kansas drone owners (most, anyway) are not rabid about expectations for flight sites on KDWPT-managed lands. They likely would appreciate due consideration for their hobby, but in many ways, espouse remarkably similar sentiment toward UAVs as the public at large. Managers inevitably interact with the most vociferous proponents of a particular activity tending to make demands, and it might seem as if these activists represent their interest group at large merely because of their persistence and volume. Experience shows that in almost every situation, these vocal and sometimes strident proponents do not represent the interests of the group they purport to represent. Flight sites on KDWPT-managed areas likely would be welcomed by drone pilots. And in most instances—if developed using wise site planning enhanced by clues revealed in this survey—and strengthened by appropriate rules and regulations—these designated areas would not degrade experiences of practically all other area users.

A logical question is, what areas might KDWPT identify as most likely to satisfy the highest drone interest and involvement among Kansas adults (Table 31). As with any facility—firearms range, archery range, accessible fishing facility, pavilion, etc.—the desire among agency managers and administrators is to see public accommodations used (but not abused).

Table 31. County of residence of "avid" Kansas drone pilots (weighted population). Note: Includes only Kansas drone fliers who operate drones at least "about every month."

		D	During an average year, how often do you operate or fly drones?					?
		9-15 times (about		16-24 tim	16-24 times (about		25+ times (about once a	
		every m	onth)	twice a	month)	week o	r more)	Total
County	Anderson	0%	0	8%	2,114	0%	0	2,114
	Butler	9%	4,375	0%	0	10%	3,123	7,497
	Cherokee	0%	0	9%	2,532	0%	0	2,532
	Cloud	0%	0	0%	0	5%	1,626	1,626
	Crawford	0%	0	17%	4,547	0%	0	4,547
	Douglas	6%	2,608	0%	0	0%	0	2,608
	Franklin	0%	0	6%	1,626	0%	0	1,626
	Johnson	14%	6,536	10%	2,608	0%	0	9,144
	Leavenworth	7%	3,123	11%	3,123	0%	0	6,245
	Nemaha	0%	0	0%	0	9%	2,608	2,608
	Neosho	9%	4,375	0%	0	0%	0	4,375
	Reno	19%	8,777	0%	0	0%	0	8,777
	Russell	4%	1,626	0%	0	0%	0	1,626
	Sedgwick	23%	10,607	30%	8,186	53%	16,008	34,800
	Shawnee	0%	0	10%	2,608	5%	1,626	4,233
	Wyandotte	9%	4,375	0%	0	17%	5,236	9,611
	Total	100%	46,400	100%	27,342	100%	30,225	103,968

Of the roughly 300,000 adult drone owners in Kansas, about 200,000 (~66%) fly their drones 6 times or less per year—an important user group, but perhaps falling short of the classification "avid." Roughly one-third of Kansas drone pilots (103,968) operate their drones "about every month" or more—a group that might rightly be considered "avid" or enthusiasts. They reside in 16 counties. Sedgwick county alone accounts for one-third (34,800) of these drone enthusiasts. Obvious KDWPT-managed lands for consideration as possible flight sites would be those within reasonable traveling time of these counties, particularly Sedgwick, Wyandotte, Johnson, and Butler.

Open-ended questions are an excellent method allowing survey participants to offer thoughts in their own words. This "qualitative" input from the Kansas adult respondents themselves should, in many ways, parallel and even supplement the "quantitative" data they provided—such as one fairly clever suggestion to name designated areas for drones, "drone habitat."

Following are lightly edited comments in response to the final question in the study, "Any additional thoughts, or thoughts on this survey?

- ✓ Appreciate the curiosity of others' opinions on this matter!
- ✓ Concern for privacy and officials violating my right to privacy.
- ✓ Cool subject.
- ✓ Drone operators in city and state owned parks should at the very least require a permit along with strict and clear rules and regulations accompanied with fines. They are too easily abused in the hands of amateurs and even some adults to invade the privacy of others.
- ✓ Drone operators should always be licensed and carry that license while operating, regardless if it is for work related reasons or for recreational purposes.
- ✓ Drones are a good idea.
- ✓ Drones are a little scary.
- ✓ Drones are a way of life now. The only problem I see is if the recreational drones are flown too close to children or campsites and crash or hit someone. I think they should be kept at least a 1/4 mile away from campsites and playgrounds.
- ✓ Drones are an invasion of privacy.
- ✓ Drones are cool but I don't own one.
- ✓ Drones are fun and helpful in the community. Hope to see loose regulations in the future.
- ✓ Drones are great for people looking for fun, but too many risks of people looking for trouble, spying, intruding on privacy. Maybe drones should not be allowed to have cameras of any kind on them by individuals/visitors. Maybe drones with cameras in areas known for trouble spots, but only by certified staff. But then it becomes a matter of who can be trusted to keep it professional.
- ✓ Drones are great. I think that privacy needs to be addressed when drones are the topic. People can easily be infringed upon by their use, and this is a real problem.
- ✓ Drones are ok, but not if they invade privacy of humans.
- ✓ Drones are okay if the privilege of owning one is not abused.
- ✓ Drones are the wave of the future.
- ✓ Drones can be used for beneficial purposes but they can also be misused for evil purposes. With child disappearances as well as older teens and ladies disappearances

- for trafficking, as well as porn, drones could become tools in the wrong hands. Tight regulations may help control potential problems.
- ✓ Drones can be used for search and rescue services. Private drones should be used in sanctioned areas.
- ✓ Drones can be very useful but can impinge on privacy.
- ✓ Drones cause no danger and they are helpful in many ways.
- ✓ Drones could be very important to the up-keep and safety of our parks.
- ✓ Drones do not bother me unless used for the purpose of violating privacy.
- ✓ Drones don't necessarily bother me, and I think the research perspective could be very useful!
- ✓ Drones for land and wildlife management and other scientific uses wouldn't bother me. Civilian/recreational/private drone use has no place in a wild area unless a permit is obtained, for example, a wildlife/wild lands photographer.
- ✓ Drones make people uneasy, like being spied on.
- ✓ Drones should be allowed under close watch.
- ✓ Drones should be excluded from bathroom, outhouse, and playground areas. Boat ramps/water as well due to loss of drone, and potential hazard of hitting a boater or person on skis.
- ✓ Drones should be limited to park management, law enforcement and fire fighters. Thank you.
- ✓ Drones should be regulated to ensure privacy.
- ✓ Drones should not be allowed.
- ✓ Drones should not be allowed to invade privacy.
- ✓ Drones would be a great for finding missing kids in parks.
- ✓ Except for scientific, ecological, fire prevention, law enforcement, no drones need to be allowed in state parks.
- ✓ Be sure to explain the pros and cons of drones.
- ✓ For the professionals, I support drone use. For recreational use, I do not support drone use at area lakes and parks. They belong in the middle of a 40 acre plowed field.
- ✓ Good survey about my thoughts on drones.
- ✓ Good survey. Don't go overboard on the drones!
- ✓ Great questions.
- ✓ Great topic!
- ✓ Have not tried drone flight yet.
- ✓ How do you find out any rules or regulations regarding drones in Kansas?
- ✓ I am glad that there are things being done with drones. But I also think that they need boundaries.
- ✓ I am mostly concerned for the protection of wildlife and my children's privacy.

- ✓ I am not a huge fan of drones due to risk of loss of privacy but if there is a possible benefit to wildlife and to the park itself I would not have a problem with them being used.
- ✓ I am not opposed to drone use and see how they are useful for safety and research. Part of the reason I go to state parks is to get away from noise and tech. I would not like having drones everywhere disturbing that.
- ✓ I am not opposed to drones. I am opposed to them in the wild places I enjoy. I would favor having specific places for the public to use them. Say an area like a golf course has its own space. Drone activity could occur at a "drone habitat." But I would not allow them in wild areas where hunting, camping, fishing would occur.
- ✓ I am perfectly fine with drones as long as they are not used to invade people's privacy. For search and rescue or other emergency situations I think they should be used. Also to collect data on wildlife, they can/should be used as long as they don't disturb the wildlife.
- ✓ I believe drones are mostly a positive thing.
- ✓ I believe drones could be used in many positive ways such as searching for people or animals in areas.
- ✓ I believe human interaction is conflicting with the earth's natural state. Some areas should be left undisturbed for us to live the way in peace.
- ✓ I dislike the use of drones due to intruding upon nature as well as privacy issues.
- ✓ I do not like drones if they are being flown off one's one property. If on their own property, it is OK, but I would absolutely NOT want one flying around mine!
- ✓ I do not see major issue with drone use if common sense and respect for others is followed. Also while I do not have a park pass currently it has more to do with where I live now. We always had one when we lived in Riley County, but in Finney County much less need for desire to visit the parks.
- ✓ I don't know much about drones.
- ✓ I don't mind people using drones, as long as their drone is not flying around my campsite.
- ✓ I don't think I know enough about drones.
- ✓ I enjoyed taking this survey.
- ✓ I enjoyed taking this survey because the topic was fun to learn about and give opinions on.
- ✓ I enjoyed this survey.
- ✓ I feel drones invade the private citizen's right of privacy.
- ✓ I feel it is very important for drones to avoid aircraft flight paths COMPLETELY. NO EXCEPTIONS!
- ✓ I feel my privacy would be violated.

- ✓ I fully support the use of drones on Kansas wildlife areas
- ✓ I hate drones.
- ✓ I like this survey.
- ✓ I liked giving my opinion on as long as it is to protect the land, animals, people in search and rescue, I support it, but I am against it violating people's privacy.
- ✓ I liked the survey, it was very short and easy to answer.
- ✓ I love drones and flying them, but I would not want to be disturbed by their sounds or have wildlife disturbed by them either. I love Kansas parks!!!
- ✓ I might have more problems than I think with drones. Not knowing who's flying them, and wanting to be in private, I could see that being a small nuisance having drones flying everywhere.
- ✓ I see the professional use of drones, going places that may put human life at risk, but the recreational use should be regulated because of the possible use to invade others' privacy. If they were camera free, than the regulations should be the same as remote control airplanes.
- ✓ I support the use of drones to further the maintenance and preservation of state land, but don't see public recreational use of drones on state lands to be positive.
- ✓ I think any drone on KWP land should only be operated by park personnel only or supervising someone while on the land.
- ✓ I think drones are a good idea to check in on wildlife, for search and rescue and to do general checks on areas that might otherwise take a longer time to drive or walk to.
- ✓ I think drones are a great way to link the technological world with the natural world together for the betterment of understanding our shared Earth.
- ✓ I think drones are efficient and would increase awareness in our surroundings. I think technology has been stepping up and it is a foundation to use it for our benefits.
- ✓ I think drones can be extremely useful tools for conservation, law enforcement, etc., but recreational use on public lands by private citizens could easily become problematic. Many will ignore rules and in some cases, may use them to do harm to others. I think drones are fun and should be enjoyed by most people, but not on public lands.
- ✓ I think drones can be useful and helpful, in the right hands and the right situations.
- ✓ I think drones could be a positive thing, but I do worry it could potentially turn sinister.

  All in all, it's not a huge deal. Its public space. There are cameras in every store you walk into and at plenty of traffic lights. This isn't too different.
- ✓ I think drones, like everything, can be used for one purpose, and then is taken further than it intended and violates, infringes upon, and destroys any sense of privacy and respect to nature or people.
- ✓ I think that having a designated area would be the best way to resolve any current and or future issues between drone users and drone antagonists.

- ✓ I think that if used appropriately and for good purposes on a government level, without infringing on the rights of the people or causing a disturbance for the wildlife, the use of a UAV can be greatly beneficial.
- ✓ I think that people's privacy should be respected but I also support the use of drones in public areas, used in context.
- ✓ I think use of drones should be kept to professionals.
- ✓ I thought there were great questions. I'm not really interested in flying drones. Thanks for letting me answer.
- ✓ I thought this was a really good and unique survey.
- ✓ I understand that people want to use drones to monitor and survey areas of land for many different reasons, but I feel a loss of privacy. First of all, people should get the heck out of their vehicles and stop being so lazy. What happened to our world that no one wants to hire actual people to do work. Can't people do things without being in a sitting position, you know like get off their lazy duffs and go survey things, like they always have done for generations. I don't like the new world at all; everywhere we go we are being monitored. I'm a nature person, it is my sanctuary and I feel like I would rather not have these things hovering over. Heck even the animals probably don't like it. Get off your duffs and do an actual job, not playing with remote control helicopters spying on the world.
- ✓ I would not be completely opposed to drones being used in certain areas of state park. I also believe that a lot of the drones being used a lot in state regulated land should mainly be operated by the park rangers.
- ✓ I would prefer for the drones only to be used in designated areas.
- ✓ I'm all for drone use if you can't use SOME of the footage in court ie: drinking or smoking in the area. Obviously if someone got murdered out there then, yes, use the footage, but not to jail every couple or teenager that goes to have a good time; waste of a good resource and I like my privacy as much as the next guy. Thank you.
- ✓ I'm fine with drones being used for research purposes as long as they don't threaten the wildlife or cause a threat to anyone visiting the parks
- √ I'm not too worried about drones on public land.
- ✓ Interesting study....I'd be much more in favor if being used for search/rescue rather than recreational purposes. My preferred distances would change if I knew trained managers were using drones. Great survey!
- ✓ Interesting survey. I do not personally own a drone currently, but purchased one for my son.
- ✓ It may be a way to find out more about wildlife.
- ✓ It's a very good survey
- ✓ This survey was interesting!!

- ✓ It would have been helpful to include more information about who may fly drones in Kansas.
- ✓ It's hard to tell how people would feel about drones. If it became excessive, it could be a problem.
- ✓ Love drones
- ✓ Love Kansas parks...camp a lot. Thankful for all the hard work maintaining them and patrolling them.
- ✓ Love national parks.
- ✓ Made me think more about our parks.
- ✓ Minimum use of drones for utility purpose like search and rescue or land survey. Must be operated by ethical and trained individual.
- ✓ My concerns would be the invasion of people's privacy and any associated effects to wildlife.
- ✓ My main concern would be to prevent disturbing any natural habitats of animals with noise or movement of drones. Having designated fly areas - even obstacle courses could be a great way to attract more people to certain areas. Maybe consider day permits for drones to keep the number in any given area at any given time to a minimum and to ensure proper education of acceptable use of drones by the pilots. I don't think charging a fee would be good. Many people use drones to capture images of nature from a different angle.
- ✓ My only concern would be how many would be allowed to "patrol" an area. I think that would take something away from the nature of it all. Unless of course in a designated area for recreational use only.
- ✓ Nice survey.
- ✓ Good survey. Don't go overboard on the drones!
- ✓ Only use drones for research. No recreational use.
- ✓ People are everywhere these days, sometimes you want privacy as much as possible. Got to leave the house once a while.
- ✓ People are too uptight about drones.
- ✓ Please don't mess up parks with even more man-made junk. Roads & cars, & picnic tables are bad enough.
- ✓ Prefer minimal restrictions.
- ✓ Privacy and safety first.
- ✓ Privacy my main issue.
- ✓ Privacy would be my biggest concern about the use of drones in state parks. They can be easily misused. I think there is a park near the Webster Reservoir for the use of model airplanes. But, it is some distance from the lake. I'd prefer to see similar rules and regulations for model airplanes as there is for drones.

- ✓ Safety and security are the most important things.
- ✓ Survey covered the needed areas.
- ✓ Thank you.
- ✓ That this is a good survey, lots of good questions.
- ✓ The use of drones should be monitored for safety and security reasons by use of Law Enforcement personal only.
- ✓ There has to be some restrictions for privacy of an individual. Rules to be followed.
- ✓ These are an invasion of privacy.
- ✓ They [drones] should be high in the air.
- ✓ This is a very good survey.
- ✓ This survey was confusing
- ✓ This survey was very interesting and enjoyable. Thank you!
- ✓ This was an interesting and relevant survey for me.
- ✓ This was very informative. Reminded me of outdoor activities to do.
- ✓ Thoughtful and challenging.
- ✓ Very good survey.
- ✓ Very interesting survey; never thought about it before.
- ✓ We need more information about drones.
- ✓ While drones can be used for entertainment, there needs to be some regulations to keep them in check. Once some regulations are set, there are so many uses to make them very versatile including helping with wildlife.
- ✓ While I feel there are dutiful uses for drones, like the ones named, I also know that without the proper regulations and restrictions on such things like recreational use, some will have a tendency to violate another's right to privacy.
- ✓ Yes! I think the drones are a great idea, especially for certified and trained staff, especially law enforcement. I do believe that enforced rules would need to be placed on the general public on drone usage. Always seems to be rule breakers in the bunch or issues with Sex Offenders. Unfortunately that is an issue that has to be brought up and deeply examined if letting the general public have use of drones in the Public Areas. I do think this is a great idea though, and thank you for letting me be a part in this discussion.
- ✓ Your questions were very clear, I hope Kansas makes the right decisions regarding drones: they are great for herding wild animals

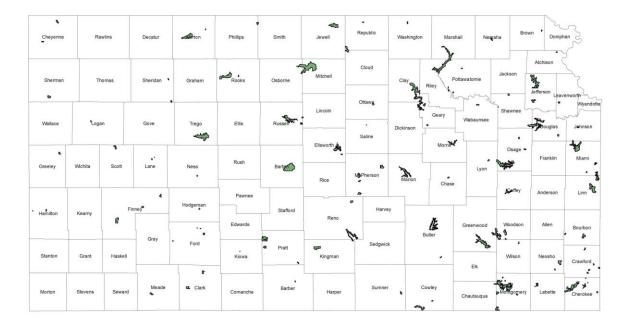
# APPENDIX A: Literature Review on Unmanned Aerial (Aircraft) Vehicles for Kansas Department of Wildlife, Parks, and Tourism

By Daniel Escher, PhD, and Matt Heinemann, MSc DJ Case & Associates September 19, 2018

# Introduction

Kansas Department of Wildlife, Parks, and Tourism (KDWPT) manages a variety public lands in the state, including state parks, wildlife areas, state fishing lakes, and trails in those areas. Examples include Perry State Park, Jamestown Wildlife Area, and Lyon State Fishing Lake.

There are 150 areas total, covering over 460,000 acres, as seen in the map below:



In the last few years, KDWPT has become increasingly interested in the use of Unmanned Aerial (Aircraft) Vehicles (UAVs) for assessing, monitoring, and managing natural resources on these public lands. Benefits include improved information on recreational conditions, more services, and lowering data collection costs. By following approved procedures, trained UAV operators within KDWPT are developing a UAV flight team that is capable of accomplishing missions that support the public agency.

UAVs are also growing in popularity among hobbyists and recreational users, many of whom enjoy the technology to capture photographs and video from above-ground altitudes.

For the public to accept UAVs - whether they are operated by KDWPT staff or recreational users - the perceived benefits must be balanced with concerns. These concerns include increased noise, privacy

issues, and risks to visitors and wildlife The extent of public acceptance (or opposition) is an important consideration for management's decisions to either restrict or expand projects currently underway in a limited number of locations.

The perceived potential of the UAV to assist agency personnel and to attract a new constituency to parks, particularly recreational users, combined with the proposed use of this technology by researchers, indicate that a policy should be considered to regulate the use of this technology in the airspace inside Kansas public lands.

Producing a consensus on UAV regulations among diverse groups through an open discussion of how to balance UAV operations with safeguards on privacy and property rights would require more than an individual study, but this effort has the potential to inform subsequent discussions and is a step in the right direction.

In the remainder of the document, relevant literature on the use of UAVs is described and summarized. This information will help with the development of a survey of the general public within Kansas as well as point to future areas of research.

## **Spread and Regulations of UAVs**

The Federal Aviation Administration (FAA) estimated 2.5 million UAVs (or what the FAA calls "UAS") to be in use in the U.S. at the end of 2016, and it expects that number to triple to more than 7 million by 2020.<sup>4</sup>

The FAA seeks to fully integrate UAVs into the National Airspace System. The administration is working toward UAVs operating harmoniously, side-by-side with manned aircraft, occupying the same airspace and using many of the same air traffic management systems and procedures.

As such, the FAA strictly regulates UAV use. Major features of regulations include the following:

- UAVs that weigh more than 0.55 pounds and less than 55 pounds must be registered.
- UAVs must not fly above 400 feet.
- UAVs must stay clear of surrounding obstacles.
- UAVs must stay within eyesight of the operator.<sup>6</sup>
- UAVs are not permitted to fly in areas that have "Temporary Flight Restrictions" (TFRs) in place, such as wildfires. The public can search TFRs at <a href="http://tfr.faa.gov/tfr2/list.html">http://tfr.faa.gov/tfr2/list.html</a>.
- UAVs must stay more than five miles away from airports, unless operators receive explicit permission.<sup>7</sup>

Because of registration requirements, the FAA provides a detailed list of where UAVs are registered. As of August 1, 2018, the FAA records showed **8,947** total UAVs registered in Kansas.<sup>8</sup> The table below shows the number of UAVs registered in each city or town. (The table only shows the top 15 cities or

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<sup>&</sup>lt;sup>4</sup> http://www.businessinsider.com/faa-says-drone-usage-will-triple-by-2020-2016-3?IR=T.

<sup>&</sup>lt;sup>5</sup> https://www.faa.gov/uas/getting started/registration/.

<sup>&</sup>lt;sup>6</sup> https://www.weareiowa.com/news/your-guide-to-obeying-the-new-drone-laws/307610736.

<sup>&</sup>lt;sup>7</sup> https://drive.google.com/file/d/1TCxKqFe0B26s9TOeTbEQivQbGryHJ-f1/view

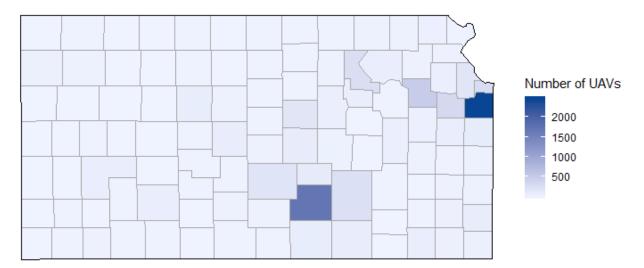
<sup>&</sup>lt;sup>8</sup> https://www.faa.gov/foia/electronic reading room/#geo list.

towns in term of number of UAVs; the database contains 596 total locations throughout Kansas, although most of these have one UAV registered there.)

City	Number of UAVs
Wichita	1149
Overland Park	689
Olathe	598
Topeka	424
Lawrence	290
Shawnee	265
Manhattan	233
Lenexa	220
Kansas City	214
Salina	162
Hutchinson	161
Leawood	159
Derby	138
Gardner	105
Andover	77

The map below shows the number of UAVs registered in each county. The two darkest counties are Johnson County (with Overland Park, Olathe, and portions of other Kansas City suburbs) and Sedgwick

County (with Wichita).



To create this map, DJ Case used a crosswalk file to convert the ZIP Code of registrants to the county that contains the ZIP Code. In some cases, the ZIP Code does not fall neatly within a county's boundaries; in those cases the ZIP Code was assigned to the county where the majority of that ZIP code fits.

### **Functions of UAVs**

The functions of UAVs are multiple.

For the general public, their major use is enabling operators to attach video or still cameras and obtain distinct views of landscapes, subjects of interest, and wildlife. Since they are generally small and highly maneuverable, UAVs can offer access to areas otherwise inaccessible or traditionally off-limits to casual observers.

For natural resource managers and researchers, video images and data collected from a UAV can be used to discern midsize vertebrates in natural areas, evaluate species distribution and abundance, and reach areas that are remote or present challenges to access. UAVs are also capable of measuring habitat-to-population relationships on small scales because it has spatiotemporal capabilities that can span the wide gap between those of traditional aircraft and ground research. The authors explicitly recommend the following:

For small UAVs to be useful as management or research tools, they should be durable, modular, electric powered, launchable and recoverable in rugged terrain, autonomously controllable, operable with minimal training, and collect georeferenced imagery.

The authors also implicitly recommend the use of sound-reducing technology to muffle noise experienced when wildlife or recreationalists are within proximity to the UAV while it is flying. For example, a special muffler is available that eliminates noise at >150 meters of altitude.<sup>9</sup>

<sup>&</sup>lt;sup>9</sup> An assessment of UAVs for wildlife research.

UAVs can also help search and rescue operations and the assessment of natural disasters (e.g., floods, droughts, fires, and storms).

The following list contains some examples of practical applications of UAVs in wildlife management and conservation:

- Jones, G.P., Pearlstine, L.G., and Percival, H.F. (2006). An assessment of small unmanned aerial vehicles for wildlife research. *Wildlife Society Bulletin*, 34(3), pp. 750-758. (link to article)
- Gonzalez, L.F., Montes, G.A., Puig, E., Johnson, S., Mengersen, K., and Gaston, K.J. (2016).
   Unmanned aerial vehicles (UAVs) and artificial intelligence revolutionizing wildlife monitoring and conservation. *Sensors*, 16(1). doi:10.3390/s16010097 (link to article)
- Martin, J., Edwards, H.H., Burgess, M.A., Percival, H.F., Fagan, D.E., Gardner, B.E., Ortega-Ortiz, J.G., and Ifiu, P.G. (2012). Estimating distribution of hidden objects with drones: from tennis balls to manatees. *PLoS ONE* 7: e38882. doi:10.1371/journal.pone.0038882. (link to article)
- Mulero-Pazmany, M., Stopler, R., van Essen, L.D., Negro, J.J., and Sassen, T. (2014). Remotely piloted aircraft systems as a rhinoceros anti-poaching tool in Africa. *PLoS ONE* 9: e83873. doi:10.1371/journal.pone.0083873. (link to article)
- Watts, A.C., Perry, J.H., Smith, S.E., Burgess, M.A., Wilkinson, B.E., Szantoi, Z., Ifiu, P.G., and Percival, H.F. (2010). Small unmanned aircraft systems for low-altitude aerial surveys. *Journal of Wildlife Management*, 74, pp. 1614–1619.
- Lin, J., Shu, L., and Zhang, B. (2012) Experimental observation and assessment of ice conditions with a fixed-wing unmanned aerial vehicle over Yellow River, China. Journal of Applied Remote Sensing 6: 063586. doi:10.1117/1.JRS.6.063586. (link to article)
- Getzin, S., Wiegand, K., and Schoning, I. (2012). Assessing biodiversity in forests using very high resolution images and unmanned aerial vehicles. Methods in Ecology and Evolution, 3, 397–404. (link to article)
- Merino, L., Caballero, F., Marti´nez-de-Dios, J.R., Maza, I., and Ollero, A. (2012). An unmanned aircraft system for automatic forest fire monitoring and measurement. Journal of Intelligent and Robotic Systems, 65, pp. 533–548.
- Rango, A., Laliberte, A., Steele, C., Herrick, J.E., Bestelmeyer, B., Schmugge, T., Roanhorse, A., and Jenkins, V. (2006). Using unmanned aerial vehicles for rangelands: Current applications and future potentials. Environmental Practice, 8, pp. 159–168. (link to article)

# **Public Opinion on UAV**

Many in the American public are unaware of drones, their uses, and their regulations. For example, a study conducted in March 2013 showed a low level of awareness, with a little less than half (44%) reporting that they knew just a little or nothing at all about UAS applications in U.S. airspace. Over half of the general public indicated support for *any* application (57%), and higher levels of support for applications in homeland security (67%), fighting crime (63%), search and rescue (88%), and commercial applications (61%). In contrast, the lowest level of support in the general public was for routine, everyday use (43%).

*General-use* support differs substantially from *use-specific* support. For example, a 2013 worldwide poll found that 54 percent of the public favors increased non-military use of UAV (20 percent neutral, 27 percent opposed).<sup>10</sup>

An overwhelming majority of Americans support the idea of using drones to help with search and rescue missions (83%). However, only 21% support using drones to issue speeding tickets. Two-thirds would be very or somewhat concerned about privacy if U.S. law enforcement started using unmanned drones with high tech surveillance cameras and recording equipment. Note that support varies by the *purpose* of the use. In addition, privacy concerns are high regarding surveillance use.<sup>11</sup>

A nonprobability quota sample survey in January 2015 of American adults to examine support for drone use across a number of domains, including wildlife monitoring and protection. The researchers found public support for using drones, in the following order starting with strongest support to lowest support: firefighters, search and rescue, conservation, farming, police, hobbyists, business, real estate. A relatively weak correlation of public support was *not* attributed to demographic factors of respondents but, rather, what the researchers term "positive beliefs about science" - or more precisely - optimism about the benefits of science and technology.<sup>12</sup>

A study of Canadians found the majority of respondents support UAVs for purposes of safety or emergency response. Support declines when UAV are used for routine surveillance or identification of people.<sup>13</sup>

Who is piloting the UAV affects opinions of those surveyed: support is lower for private, commercially oriented uses. Emergency responders received majority approval. Hobbyists received about 50% approval. Support is higher for piloted UAV versus autonomous UAV.<sup>14</sup>

Gaining public trust in UAVs will take time and require demonstrated safe, economical and socially responsible operations. But any trust gained through such efforts could be easily damaged or lost in a high exposure accident.<sup>15</sup>

Whether or not the social risks associated with drones are recognised and taken seriously seems likely to depend on how the "success" of drones (or a pilot study) is reported and how the issue is framed. 16

## **Consequences on Wildlife and Humans**

Widespread data on UAVs' impacts on wildlife do not exist. A small number of anecdotes indicate, however, that this is an area about which operators and policy-makers should be particularly sensitive.

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<sup>&</sup>lt;sup>10</sup> https://www.aia-aerospace.org/news/poll-demonstrates-popular-support-for-civil-unmanned-aircraft-systems/.

<sup>&</sup>lt;sup>11</sup> US Supports Unarmed Domestic Drones (2013).

What's That Buzzing Noise? Public Opinion on the Use of Drones for Conservation Science.

<sup>&</sup>lt;sup>13</sup> Understanding public opinion of UAVs in Canada.

<sup>&</sup>lt;sup>14</sup> A 2014 analysis of survey data and its policy implications.

<sup>&</sup>lt;sup>15</sup> Issues concerning...

<sup>&</sup>lt;sup>16</sup> Social implications...

For example, in Zion National Park a drone hovered closely to a herd of bighorn sheep. The noise and presence of this drone scattered the baby sheep from their mothers.<sup>17</sup>

Scientists and policy makers generally consider UAVs to be another form of human interference in the lives of wild animals. As such, National Oceanic and Atmospheric Administration (NOAA) classifies UAVs along with other forms of intervention, which may have the following consequences:

- Separation of mothers and their young.
- Disruption of migratory patterns.
- Disruption of social groups such as killer whale pods.
- Disruption of resting activities by seals, sea lions, and sea turtles.
- Interference in breeding and/or reproductive and rearing activities. 18

The rationale for congressionally designated Wilderness Areas or Primitive Areas is to provide opportunities for solitude and quiet. One concern with allowing UAVs on public lands is they remove another place for solitude and quiet with deleterious - even if small - consequences on wildlife and humans alike. UAVs are prohibited in wilderness areas where motorized vehicles are not allowed.

U.S. Fish & Wildlife Service recommends that UAVs be launched more than 100 meters (328 feet) from wildlife. They also recommend not approaching animals or birds vertically with UAVs.

## **Current Regulations**

Many experienced drone pilots prefer apps such as AirMap (<a href="https://www.airmap.com/airmap-for-drones/">https://www.airmap.com/airmap-for-drones/</a>) or Hover (<a href="http://www.hoverapp.io/">http://www.hoverapp.io/</a>) to understand flight restrictions and other important information prior to taking off.

The official app from the Federal Aviation Administration is called B4UFly (https://www.faa.gov/uas/where to fly/b4ufly/).

#### **State Law**

What is allowed or not allowed on public lands within each state varies widely. One helpful tool to examine regulations by state is the website <a href="http://statedronelaw.com/">http://statedronelaw.com/</a>.

**Kansas** (KDWPT) has been clear that UAVs are not permitted to chase migratory birds or to chase hunted animals (such as deer). Using a UAV to scout a landscape is allowed; flying to help a hunter triangulate and track a deer's exact location is not.<sup>19</sup> Additional protections from intrusions to privacy are formalized in Kansas: "Kansas has a statute that protects you from UAS harassment: The Kansas UAS Statute of 2016 Kansas SB319 (2016) expands the definition of harassment in the Protection from Stalking Act to include 'any course of conduct carried out through the use of [UAS] over or near any dwelling, occupied vehicle or other place where one may reasonably expect to be safe from uninvited intrusion or surveillance."<sup>20</sup>

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<sup>&</sup>lt;sup>17</sup> https://www.cnet.com/news/as-national-parks-issue-drone-bans-some-states-fall-in-line/

<sup>&</sup>lt;sup>18</sup> https://www.fisheries.noaa.gov/insight/viewing-marine-life#operate drones with caution

<sup>&</sup>lt;sup>19</sup> https://www.kansas.com/news/local/article89919927.html

http://airkansas.org/jtForce.html

**Missouri** does not have explicit laws allowing or banning drones at state parks. State law bans UAVs over Missouri State University campus/campus events except with campus administration approval.<sup>21</sup>

**Nebraska**'s state parks, state historical parks, and state recreation areas do *not* allow UAVs. However, a special permit may be issued to operate a UAV in unique occasions. State wildlife management areas do not allow UAVs unless a free Special Occasion Permit is requested and obtained.

Nebraska state law prohibits the use of aircraft, including UAVs, to harass birds, fish, or any other animal. As the notice states: "Drones should never be used to flush, chase or harass any wildlife, including, but not limited to, large flocks of migrating birds such as snow geese or sandhill cranes, or nesting birds, such as the peregrine falcons at the State Capitol building."<sup>22</sup>

Drone use is more likely to impact Nebraska's endangered and threatened birds compared to other listed plants and animals. Nebraska listed bird species include the whooping crane, least tern, piping plover, mountain plover and red knot. Drone operators should avoid flying UAVs in areas where these species are known to occur.<sup>23</sup>

**Colorado** bans UAVs for scouting wildlife and hunting.<sup>24</sup> There are some bans at various ski resorts.<sup>25</sup> UAVs are banned at Denver city parks.<sup>26</sup>

**Indiana** bans drones, except in sites designated for that purpose. An FAA license and proof of insurance may be required. Permission is granted by property manager of state park.<sup>27</sup>

**lowa** prohibits law enforcement's use of drones to enforce traffic laws; law enforcement must obtain a warrant. Pending bill: HB88/HF589 would permit drone-based photography of individuals on public property. It would allow public institutions to use drones for research purposes.<sup>28</sup>

In **Illinois**, some anti-hunting operators have used drones to scare away wildlife. A proposed bill would make it a misdemeanor to use a remote control drone to harass someone who is fishing or hunting.<sup>29</sup>

**Oklahoma** does not explicitly allow or ban UAVs at state parks. However, drones must not be flown within 400 feet of a "critical infrastructure" facility, which includes but is not limited to dams, oil and gas refineries, power plants, correctional facilities, water treatment plants, telecommunications infrastructure, correctional facilities, and bridges and highways.<sup>30</sup>

<sup>&</sup>lt;sup>21</sup> http://www.news-leader.com/story/news/education/2016/10/26/no-fly-zone-missouri-state-bans-drones-campus-university-events/92719008/

<sup>&</sup>lt;sup>22</sup> http://magazine.outdoornebraska.gov/2018/03/drone-operators-advised-to-know-and-abide-by-wildlife-park-rules/

<sup>&</sup>lt;sup>23</sup> More information can be found at <a href="http://news.legislature.ne.gov/lrd/files/2015/12/lrd">http://news.legislature.ne.gov/lrd/files/2015/12/lrd</a> mow 14.pdf.

<sup>&</sup>lt;sup>24</sup> http://www.denverpost.com/2017/10/15/colorado-hunters-leave-your-drones-at-home/

http://www.denverpost.com/2015/10/09/many-ski-areas-outlining-bans-of-drone-use/

http://www.confluence-denver.com/features/drones-090417.aspx

<sup>&</sup>lt;sup>27</sup> https://www.in.gov/dnr/9720.htm

<sup>&</sup>lt;sup>28</sup> https://www.legis.iowa.gov/publications/search/document?fq=id:852485&q=drone

<sup>&</sup>lt;sup>29</sup> http://www.deeranddeerhunting.com/articles/anti-hunting-harassment-drones-getting-shot-down

<sup>&</sup>lt;sup>30</sup> http://webserver1.lsb.state.ok.us/cf pdf/2015-16%20INT/hB/HB2591%20INT.PDF

A proposed bill in the state (HB2591) would require all drones to have a permanent label containing identifying contact information of the owner, including name, address, and telephone number. Drones that are assigned an FAA registration number would be allowed to display this number in lieu of contact information. The bill would also make it illegal to fly a drone less than 1,320 feet over private property without consent.<sup>31</sup>

**Nevada** prohibits UAVs in all Nevada State Parks. A Part 107 operator may obtain a commercial use permit (FAQ).

**California** doesn't have a blanket rule applying to drones in California State Parks yet, but some individual parks do have restrictions now (<u>FAQ</u>). The state uses "supervisory discretion." One of the California State Parks superintendents said that flying drones will be classified as an "unsafe recreational activity" soon due to some hazardous incidents. Commercial operators must obtain a state parks permit if operating a UAV commercially within a state park.

**Washington state, Seattle city parks** prohibit UAVs and other remote-controlled aircraft in parks. The rationale was that "drones have injured people by crashing into them and alarmed people by nearly crashing into them. Drones have annoyed people with their noise, and people have expressed privacy concerns about drone use. Drones have also harmed wildlife, in at least one instance causing an osprey to abandon the eggs in its nest."<sup>32</sup>

#### **Federal Law**

Federal and state agencies are often in conflict about UAV. For some, the point of these spaces is to give people areas where they can enjoy the solitude of wilderness. Hence, in certain locations, drones are banned due to safety, noise, and impacts to wildlife.

The presumption in federal law (see below) is that any sort of mechanical interference is prohibited to protected classes of wildlife, such as threatened and endangered species. Put a different way, the onus is on the state agency or general user to prove that interference from a UAV does *not* violate anti-disturbance clauses in federal legislation. As NOAA states, human "actions should not cause a change in an animal's behavior. Individual animals' reactions will vary, so carefully observe all animals in the vicinity. *Assume that your action is a disturbance* [italics added]."

UAVs are considered to be both "motorized equipment" and "mechanical transport." As such, they cannot take off from, land in, or be operated from congressionally designated **Wilderness Areas**. However, enforcement seems to be spotty.

The federal **Airborne Hunting Act** prohibit the use of aircraft, including UAVs, to harass birds, fish, or any other animal.

https://www.municode.com/library/wa/seattle/codes/municipal\_code?nodeId=TIT18PARE\_CH18.12PACO\_SUBCHAPTER\_VIIUSRE\_18.12.265MOMO

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<sup>31</sup> http://webserver1.lsb.state.ok.us/cf\_pdf/2015-16%20ENR/hB/HB2599%20ENR.PDF

<sup>33</sup> https://www.fisheries.noaa.gov/insight/viewing-marine-life#operate\_drones\_with\_caution

The **Bald and Golden Eagle Protection Act** protects the two eagle species that occur in the United States by prohibiting their disturbance. UAVs should not be flown to observe eagles or near their nests. Eagles may also attack drones, especially if flown near active nests or near large congregations of overwintering or migrating eagles.

**Endangered and Threatened Species**: Federal endangered species laws prohibit the harassment of listed species.

For the **National Wildlife Refuge System**, it is illegal to operate unmanned aircraft on refuge property without special permits. In addition, if a UAV operator stands beyond refuge boundaries and flies the vehicle over the refuge, fines can be levied if the drone is observed disturbing wildlife - for example, flushing nesting birds from an offshore island or causing resting pinnipeds to flee for the water.<sup>34</sup>

US Fish & Wildlife Service provides a number of recommendations, including keeping UAVs away from populated and noise-sensitive areas, such as campgrounds, trail heads, and visitor centers.<sup>35</sup>

In Monterey Bay National Marine Sanctuary, any UAVs operating below a 1,000' flight-deck are prohibited. The superintendent of the sanctuary justified the regulation as follows: "Appearing suddenly [drones] can cause disturbance through sight, sound and movement... Wildlife often react by fleeing quickly, or if they remain behind, stay on high alert to guard against a return of the perceived threat. Such disturbances can create stress and can significantly affect an animal's health, particularly those that are pregnant or raising young." 36

**U.S. Forest Service** generally allows UAVs, with exceptions for Wilderness Areas and areas with Temporary Flight Restrictions (TFRs), such as areas with wildlifires. *In addition*, USFS prohibits drone use at the following:

- Campgrounds
- Trailheads
- Aircraft bases, such as helibases and backcountry airstrips
- Areas where aircraft are performing activities like wildlife suppression or aerial surveys<sup>37</sup>

National Park Service has banned the use of UAVs. 38 This interim rule applies to:

- National Parks
- National Seashores
- National Monuments
- National Recreation Area
- any other land administered by the National Park Service

<sup>&</sup>lt;sup>34</sup> https://www.fws.gov/refuge/James Campbell/what we do/resource management/drones.html

<sup>35</sup> https://www.fws.gov/refuge/James Campbell/what we do/resource management/drones.html

<sup>&</sup>lt;sup>36</sup> http://montereybay.noaa.gov/new/2014/140617drone-statement.html

<sup>&</sup>lt;sup>37</sup> https://drive.google.com/file/d/1TCxKqFe0B26s9TOeTbEQivQbGryHJ-f1/view

<sup>&</sup>lt;sup>38</sup> <a href="https://www.nps.gov/policy/PolMemos/PM\_14-05.htm">https://www.nps.gov/articles/unmanned-aircraft-in-the-national-parks.htm</a>; <a href="https://www.cnet.com/news/as-national-parks-issue-drone-bans-some-states-fall-in-line/">https://www.cnet.com/news/as-national-parks-issue-drone-bans-some-states-fall-in-line/</a>

Bureau of Land Management does not restrict the use of recreational use on most of the lands it manages. However, a lack of restriction is not the same as outright acceptance. In public areas where motorized recreation is allowed, drones are okay if other FAA rules are followed. But in areas where motors are banned, including wilderness, canoe and primitive areas, drones are out of bounds. The rationale behind the policy is something to the effect of: Anywhere a person can shoot and camp anywhere without a permit is a place where that person can fly a drone within FAA rules, except in special areas such as archaeological sites.<sup>39</sup>

### Miscellaneous

The National Air Space (NAS) is controlled by the FAA. The second type of airspace is referred to as Restricted, Prohibited, or Warning Area Airspace and is controlled by the military agency or institution in charge. It is important to note that approval from the controlling agency of the relevant airspace is required.

The regulations to be followed in this airspace will likely be different from those of FAA in certain ways, but they will be similar enough that those experienced in flying in the NAS should have no problem adapting to flying in the non-NAS.40

A nonprofit organization, the Association of Unmanned Vehicle Systems International, is working to represent the UAV community with FAA.41

<sup>&</sup>lt;sup>39</sup> https://fstoppers.com/aerial/making-heads-or-tails-flying-drone-over-us-public-lands-226124; http://news.wbfo.org/post/want-fly-drone-public-land-heres-what-know; https://www.jmpeltier.com/2017/05/14/rules-flying-drone-backpacking-hiking/

<sup>40</sup> https://drive.google.com/open?id=1U4rG7Z-760J0vGT9P0npAbRi uLmcLO9

<sup>41</sup> http://www.auvsi.org/

# **APPENDIX B:** KDWPT Drone Survey

Updated September 14, 2018; Approved for field October 24, 2018

N=800 Kansas adults, 18 years old or older

Required Q's: Q1, Q1a

Survey content is presented. The content was formatted by Toluna (the firm helping DJ Case administer the survey) in an aesthetically appealing and easy-to-complete questionnaire.

#### **BEGIN**

Thank you for helping with this important study about drone use on public lands in Kansas, sponsored by the Kansas Department of Wildlife, Parks, and Tourism (KDWPT).

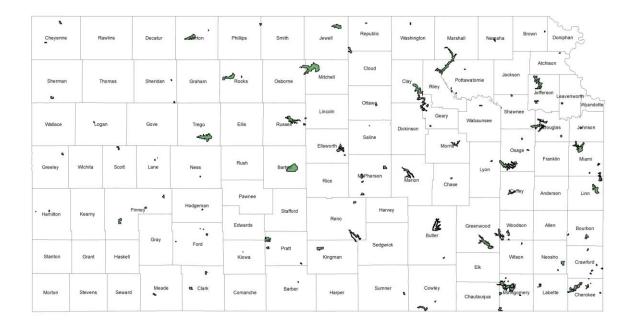
This survey will take about 10 minutes of your time. Your identity will be kept strictly confidential. You will not be identified by name in any reports of the completed study. All responses will be identified only by a code number and reported only in the aggregate. Only the summary results will be shared publicly.

There are no foreseeable risks to you associated with this research. Participation in this research may benefit you directly by enabling KDWPT to plan new activities on public lands. If you have questions at any time, please contact:

Matt Heinemann
Project Manager
DJ Case & Associates
matt.heinemann@djcase.com

Kansas Department of Wildlife, Parks, and Tourism manages a variety public lands in the state, including state parks, wildlife areas, state fishing lakes, and trails in those areas. Examples include Perry State Park, Jamestown Wildlife Area, and Lyon State Fishing Lake.

There are 150 areas total, covering over 460,000 acres. The map below shows these areas.



- What is your zip code?
   [TERMINATE IF NOT IN KANSAS ZIP LIST]
- 1a. What is your age?
  - a. Under 18
  - b. 18-24
  - c. 25-34
  - d. 35-44
  - e. 45-54
  - f. 55-64
  - g. 65 and older

## [TERMINATE IF UNDER 18]

- 2. In the last 12 months, have you visited any KDWPT-managed lands, such as state parks, wildlife areas, state fishing lakes, or trails in those areas?
- Yes
- No
- Don't know
- 3. Do you have an annual pass to enter Kansas state parks?
- Yes
- No
- Don't know

- 4. Do you consider yourself to be any of the following? (Check as many of these as apply to you.)
- Hunter
- Angler
- Camper
- Paddler (like kayaker)
- Boater
- Hiker
- Walker
- Runner/Jogger
- Wildlife (bird) watcher
- Photographer
- Environmental educator
- Bicyclist
- Horseback rider
- Disc golfer
- None of the Above

This survey asks about drones, also known as UAV (unmanned aerial vehicle) or UAS (unmanned aircraft system). Drones can be used for a number of purposes. You may have seen a drone that looks like the picture below:



- 5. Do you own a drone?
- Yes
- No
- 6. During an average year, how often do you operate or fly drones?
- 0 times
- 1-2 times
- 3-8 times (about every other month)
- 9-15 times (about every month)
- 16-24 times (about twice a month)
- 25+ times (about once a week or more)

- 7. How much do you know about drones, including current regulations?
- A great deal
- Some
- A little
- Nothing at all
- 8. Drones could be used for a variety of purposes on KDWPT-managed lands (like state parks and wildlife areas). For each of the potential uses, indicate your support/opposition and whether you would visit more, less, or the same. DROPDOWN]

Potential Use	Opinion	Would you visit KDWPT- managed land
Manage wildlife and habitat	Strongly oppose - Oppose - Neutral - Support - Strongly support	Much less - Less - No change - More - Much more
Search and rescue	Strongly oppose - Oppose - Neutral - Support - Strongly support	Much less - Less - No change - More - Much more
Combat fires	Strongly oppose - Oppose - Neutral - Support - Strongly support	Much less - Less - No change - More - Much more
Inspect infrastructure like power lines, pipelines, dams	Strongly oppose - Oppose - Neutral - Support - Strongly support	Much less - Less - No change - More - Much more
Conduct scientific research	Strongly oppose - Oppose - Neutral - Support - Strongly support	Much less - Less - No change - More - Much more
Photography (recreational)	Strongly oppose - Oppose - Neutral - Support - Strongly support	Much less - Less - No change - More - Much more
Video (recreational)	Strongly oppose - Oppose - Neutral - Support - Strongly support	Much less - Less - No change - More - Much more
Flying drones just for fun	Strongly oppose - Oppose - Neutral - Support - Strongly support	Much less - Less - No change - More - Much more
Surveying and mapping land and water	Strongly oppose - Oppose - Neutral - Support - Strongly support	Much less - Less - No change - More - Much more

9. For some people, drones bother them a lot. For others, drones do not bother them at all. If drones were allowed at KDWPT-managed lands, how much would each of the following bother you?

Issue	Would bother me
Hearing them	Not at all - A little - Somewhat - A lot - A great deal - Don't know
Seeing them	Not at all - A little - Somewhat - A lot - A great deal - Don't know
Feeling less privacy	Not at all - A little - Somewhat - A lot - A great deal - Don't know
Concern about potential disturbance to wildlife	Not at all - A little - Somewhat - A lot - A great deal - Don't know
Loss of wild places	Not at all - A little - Somewhat - A lot - A great deal - Don't know
Concern for my safety	Not at all - A little - Somewhat - A lot - A great deal - Don't know
Other:	Not at all - A little - Somewhat - A lot - A great deal - Don't know

10. Drones can be operated by many types of people. For each of the potential operators listed below, how would your feelings change toward drone use in KDWPT-managed areas? [TT1SC]

Operator	Feeling toward drone use in KDWPT-managed
	areas
KDWPT employees (trained and certified)	Much more negative - More negative - Same - Positive - Much more positive
Law enforcement (trained and certified)	Much more negative - More negative - Same - Positive - Much more positive
Contractors (trained and certified)	Much more negative - More negative - Same - Positive - Much more positive
University staff (trained and certified)	Much more negative - More negative - Same - Positive - Much more positive
Recreationalists (no training or certification required)	Much more negative - More negative - Same - Positive - Much more positive

11. If you were visiting a Kansas state park, wildlife management area, or other KDPWT managed area that allowed drones, are there areas that drones should be restricted?

(select one answer for each row)

Feature	No restrictions where drones are used near	Drones should  NOT be allowed within 100 yards (1 football field) of	Drones should  NOT be allowed within 1/4 mile	Drones should  NOT be allowed within ½ mile	Don't Know
Roads					
Parking Lots					
Trails					
Playgrounds					
Campgrounds					
Water Bodies					
Shorelines or Beaches					
Boat Ramps					

- 12. For you, how acceptable is it to *see* drones while you are visiting KDWPT-managed lands but *not hear* them?
  - Totally unacceptable Unacceptable Neutral Acceptable Totally acceptable Don't know
- 13. If there were designated areas within KDWPT-managed lands for the recreational use of drones, would you be more or less willing to visit?
  - Much less willing to visit Less willing to visit No change More willing to visit Much more willing to visit
- 14. If there were designated areas on KDWPT-managed lands for recreational use of drones, would you use these designated areas to fly your drone (currently owned/borrowed drone, or anticipated purchase)?
  - O Very unlikely Unlikely Neutral Likely Very likely Don't know
- 15. What is your gender?
  - a. Male
  - b. Female

16.	Which best i	epresents ethnic	or racial	background?	[SS]	1

- O African American or Black
- O Hispanic or Latino
- O Asian
- O Caucasian or White
- O Native American or Pacific Islander
- O Two or more races

Prefer not to answer

- 17. Any additional thoughts, or thoughts on this survey? [RESPONSE NOT MANDATORY]
  - [[open-ended]]

# APPENDIX C: Cross-tabulation of every survey question by selected Banner Points

The number of tables that could be created from this survey is enormous—almost defying calculation. The foregoing narrative sought to tell a story about Kansans' sentiment toward drones on KDWPT—managed areas by highlighting key tables and insights. However, the reader can explore the data further through the following "Banner Tables"—that is, each survey question cross-tabulated by selected independent (or explanatory) variables. A "banner" is one possible answer to a question; for example, the variable "gender" has 2 banners (male and female). The following set of Banner Tables cross-tabulates each survey question by 34 banners deemed to be especially explanatory for this study. Some of these banner results are duplicative of results presented in the report narrative, but many are not, and allow the reader to examine unreported results. DJ Case provided KDWPT a dataset in SAS format (and any other of the common data formats that might be requested) so KDWPT can conduct supplemental analyses they consider useful.

#### **NOTES:**

- 1. In several cases, questions and responses categories have been modified in the interest of space:
  - a. For example, reducing the question, "If there were designated areas on KDWPT-managed lands for recreational use of drones, would you use these designated areas to fly your drone (currently owned/borrowed drone, or anticipated purchase)" to "If KDWPT had drone sites, likelihood of you flying?"
  - b. For example, combining "Totally unacceptable" and "Unacceptable" to produce one response category, "Unacceptable," and similar combinations.
  - c. Responses such as "Don't know" and "Neutral" may be eliminated, slightly altering N sizes and percentages reported in the narrative and in the Banner Tables.
- 2. The variable "Drone use over a year" includes only those respondents who indicated they owned drones.
- 3. Generational descriptors often are used to describe age categories, with the assumption that these stereotypes capture a wide array of consumer and lifestyle behaviors. The challenge is to know what these stereotypical lifestyles and behaviors are so informed discussion can proceed from a common understanding of what these socioeconomic monikers encapsulate. No analysis in this report was based on generational descriptors, but the following names roughly coincide with age groupings measured in this report, and provide insight to generational nomenclature: https://genhq.com/faq-info-about-generations/.
  - a. Age <22: Gen Z or I Gen
  - b. Age 22-31: Millennials/Gen Y
  - c. Age 32-53: Generation X
  - d. Age 54-72: Baby Boomers
  - e. Age >72: Traditionalists/Silent Generation
- 4. Banner Table percentages are reported *ACROSS* the row; that is, left to right, NOT down the column. For example, the following original Table 28 as it appeared in the narrative was a "column-down" reporting of the results, as follows:

Do	you	own	а	drone?
----	-----	-----	---	--------

		Yes		No		Total	
For you, how acceptable is it	Totally unacceptable	7%	20,402	7%	120,101	140,504	7%
to see drones while you are	Unacceptable	6%	18,930	8%	147,275	166,205	8%
visiting KDWPT-managed	Neutral	25%	74,788	32%	577,811	652,598	31%
lands but not hear them?	Acceptable	33%	100,295	31%	558,530	658,825	31%
	Totally acceptable	27%	79,602	16%	300,203	379,806	18%
	Don't know	2%	6,002	7%	122,239	128,241	6%
	Total	100%	300,019	100%	1,826,160	2,126,179	100%

It revealed relatively few Kansans would find seeing drones but not hearing them to be unacceptable (13% "unacceptable" for drone owners and 15% "unacceptable for non-owners). It also showed notably large percentages of respondents answering "neutral."

For purposes of Banner Tables, categories of "Totally unacceptable" and "Unacceptable" were combined, as were categories of "Acceptable" and "Totally acceptable, and "Don't know" responses eliminated, as follows.

		Do you own a drone?							
		Ye	es	1	Total	tal			
Acceptable to see but not	Unacceptable	13%	39,332	87%	267,376	306,708	15%		
near drones?	Neutral	11%	74,788	89%	577,811	652,598	33%		
	Acceptable	17%	179,897	83%	858,734	1,038,631	52%		

294,017

85%

1,703,921

1,997,938

100%

15%

Total

Here, the interpretation is that, of the relatively small number of respondents who said they would find seeing but not hearing drones unacceptable (306,708), 39,332 were drone owners (13% of the "unacceptable" group), and 267,376 were non-drone owners (87% of the group responding "unacceptable)." Note the similarities in percentages for the "Unacceptable," "Neutral," and "Acceptable" categories across the rows. But then note the striking differences in N sizes for those similar percentages. Look to the N sizes. About 860,000 (858,734) Kansans who do not own drones would find it acceptable to see and not hear drones (83%), compared to the 577,811 respondents who answered "Neutral" to seeing and not hearing drones (89%), and the 267,376 (87%) who would find seeing but not hearing drones unacceptable. Note, too, the total N for the table immediately above (1,997,938) does not match the total for the prior column table (2,126,179) because "Don't know" responses were eliminated for the table above. In any case, both tables reveal the same finding; relatively few Kansans would find seeing drones but not hearing them to be unacceptable, and with substantial numbers "neutral" on the question.

5. Be aware of subtle wordings and the effects on results. For example, Table 12 below in the narrative measured respondents' participation in selected recreational activities. One such activity was hunting, showing 274,032 hunters among respondents, and that of this total, 30% (80,972) owned drones, and that 70% (193,059) did not own drones. However, when hunters were cross-

tabulated in the Banner Tables to the question, "Do you own a drone" (p. 83), the base number of all drone owners in the study became the denominator (300,019); thus, the 80,972 hunters owning drones becomes 27% (80,972/300,019). In other words:

- **a.** Of all hunters (274,032), 30% (80,972) owned drones (80,972/274,032).
- **b.** Of all drone owners (300,019), 80,972 were hunters as well as drone owners, or 27%.

If the question arises, "I think these two numbers or percentages should be the same (or different); why aren't they?"—keep looking for the explanation—it is in the data.

Do you own a drone?<sup>a</sup>

		Yes		N	Total	
Camper	Yes	22%	165,684	78%	591,148	756,833
Walker	Yes	15%	154,065	85%	895,561	1,049,626
Hiker	Yes	21%	120,505	79%	455,683	576,189
Angler	Yes	25%	89,241	75%	261,740	350,981
Photographer	Yes	20%	83,307	80%	331,428	414,735
Hunter	Yes	30%	80,972	70%	193,059	274,032
Runner/Jogger	Yes	27%	78,521	73%	217,170	295,691
Bicyclist	Yes	25%	71,392	75%	213,097	284,489
Wildlife (bird) watcher	Yes	19%	71,294	81%	299,232	370,526
Boater	Yes	31%	68,198	69%	148,635	216,832
Disc golfer	Yes	39%	40,704	61%	62,995	103,698
Horseback rider	Yes	27%	38,924	73%	106,466	145,390
Paddler (like kayaker)	Yes	25%	31,225	75%	93,096	124,321
Environmental educator	Yes	13%	2,971	87%	20,193	23,164

a. Respondents can participate in multiple activities.

6. Reiterating, Banner Cross-tabulation tables are row-wise, horizontal line-by-line comparisons.

Age category (collapsed)

		18-34	35-54	>54	Total
What is your age?	18-24	100%	0%	0%	288,159
	25-34	100%	0%	0%	377,720
	35-44	0%	100%	0%	346,673
	45-54	0%	100%	0%	406,264
	55-64	0%	0%	100%	331,247
	65 and older	0%	0%	100%	376,116
What is your gender?	Male	33%	36%	31%	1,042,779
	Female	30%	35%	35%	1,083,400
Ethnicity/Race	African American/Black	47%	43%	10%	92,772
	Hispanic/Latino	54%	33%	12%	128,261
	White/Caucasian	27%	35%	38%	1,722,895
	Other	44%	40%	16%	182,251
Metro or non-metro county	Urban	30%	37%	33%	1,337,834
	Rural	33%	33%	34%	788,345
Visited KDWPT lands?	Yes	36%	38%	26%	1,175,008
	No	24%	31%	45%	834,791
Annual pass KS St Pks?	Yes	37%	43%	20%	313,694
	No	29%	35%	36%	1,762,995
Do you own a drone?	Yes	52%	37%	10%	300,019
	No	28%	35%	37%	1,826,160
Drone use over average	Every other month or less	55%	33%	11%	198,659
year? (owners only)	Every month or more	46%	45%	9%	101,360
Drone regs & rules	Great deal	61%	34%	5%	88,443
knowledge?	Some	31%	37%	31%	1,275,395
	Nothing	28%	32%	40%	762,342
Acceptable to see but not	Unacceptable	31%	35%	34%	306,708
hear drones on KDWPT	Neutral	31%	39%	30%	652,598
areas?	Acceptable	31%	35%	34%	1,038,631
More or less willing to visit	Less willing	26%	33%	41%	312,667
KDWPT areas with	No change	30%	35%	35%	1,379,620
designated drone sites?	More willing	39%	37%	23%	433,891
If KDWPT had drone sites,	Unlikely	23%	36%	41%	545,758
likelihood of you flying?	Neutral	28%	40%	32%	575,456
	Likely	39%	34%	28%	787,179

# What is your gender?

		Male	Female	Total
What is your age?	18-24	52%	48%	288,159
	25-34	51%	49%	377,720
	35-44	50%	50%	346,673
	45-54	50%	50%	406,264
	55-64	49%	51%	331,247
	65 and older	43%	57%	376,116
What is your gender?	Male	100%	0%	
	Female	0%	100%	
Ethnicity/Race	African American/Black	51%	49%	92,772
	Hispanic/Latino	70%	30%	128,261
	White/Caucasian	48%	52%	1,722,895
	Other	41%	59%	182,251
Metro or non-metro county	Urban	50%	50%	1,337,834
	Rural	47%	53%	788,345
Visited KDWPT lands?	Yes	52%	48%	1,175,008
	No	45%	55%	834,791
Annual pass KS St Pks?	Yes	60%	40%	313,694
	No	47%	53%	1,762,995
Do you own a drone?	Yes	70%	30%	300,019
	No	46%	54%	1,826,160
Drone use over average	Every other month or less	64%	36%	198,659
year? (owners only)	Every month or more	83%	17%	101,360
Drone regs & rules	Great deal	78%	22%	88,443
knowledge?	Some	57%	43%	1,275,395
	Nothing	32%	68%	762,342
Acceptable to see but not	Unacceptable	45%	55%	306,708
hear drones on KDWPT	Neutral	50%	50%	652,598
areas?	Acceptable	51%	49%	1,038,631
More or less willing to visit KDWPT areas with	Less willing	49%	51%	312,667
	No change	48%	52%	1,379,620
designated drone sites?	More willing	54%	46%	433,891
If KDWPT had drone sites,	Unlikely	41%	59%	545,758
likelihood of you flying?	Neutral	56%	44%	575,456
	Likely	55%	45%	787,179

Ethnicity/Race

				licity/Ttace	1	
		Black	Hispanic	White	Other	Total
What is your age?	18-24	6%	16%	64%	14%	288,159
	25-34	7%	6%	76%	10%	377,720
	35-44	5%	5%	81%	9%	346,673
	45-54	6%	6%	78%	10%	406,264
	55-64	1%	3%	90%	5%	331,247
	65 and older	1%	1%	94%	4%	376,116
What is your gender?	Male	5%	9%	80%	7%	1,042,779
	Female	4%	4%	82%	10%	1,083,400
Ethnicity/Race	African American/Black	100%	0%	0%	0%	
	Hispanic/Latino	0%	100%	0%	0%	
	White/Caucasian	0%	0%	100%	0%	
	Other	0%	0%	0%	100%	
Metro or non-metro county	Urban	6%	6%	79%	9%	1,337,834
	Rural	2%	6%	84%	8%	788,345
Visited KDWPT lands?	Yes	4%	7%	82%	8%	1,175,008
	No	5%	5%	82%	8%	834,791
Annual pass KS St Pks?	Yes	4%	6%	82%	8%	313,694
	No	4%	6%	82%	8%	1,762,995
Do you own a drone?	Yes	4%	12%	73%	10%	300,019
	No	4%	5%	82%	8%	1,826,160
Drone use over average	Every other month or less	4%	12%	75%	9%	198,659
year? (owners only)	Every month or more	4%	14%	71%	12%	101,360
Drone regs & rules	Great deal	2%	19%	62%	17%	88,443
knowledge?	Some	5%	5%	81%	9%	1,275,395
	Nothing	4%	5%	84%	7%	762,342
Acceptable to see but not	Unacceptable	4%	8%	72%	17%	306,708
hear drones on KDWPT areas?	Neutral	4%	7%	80%	8%	652,598
	Acceptable	4%	5%	86%	5%	1,038,631
More or less willing to visit KDWPT areas with	Less willing	3%	7%	82%	9%	312,667
	No change	4%	5%	84%	8%	1,379,620
designated drone sites?	More willing	7%	10%	72%	10%	433,891
If KDWPT had drone sites,	Unlikely	4%	2%	88%	6%	545,758
likelihood of you flying?	Neutral	3%	10%	77%	9%	575,456
	Likely	5%	7%	79%	9%	787,179

#### Metro or non-metro county

		Urban	Rural	Total
What is your age?	18-24	65%	35%	288,159
	25-34	58%	42%	377,720
	35-44	68%	32%	346,673
	45-54	65%	35%	406,264
	55-64	60%	40%	331,247
	65 and older	63%	37%	376,116
What is your gender?	Male	64%	36%	1,042,779
	Female	62%	38%	1,083,400
Ethnicity/Race	African American/Black	83%	17%	92,772
	Hispanic/Latino	63%	37%	128,261
	White/Caucasian	61%	39%	1,722,895
	Other	67%	33%	182,251
Metro or non-metro county	Urban	100%	0%	
	Rural	0%	100%	
Visited KDWPT lands?	Yes	60%	40%	1,175,008
	No	67%	33%	834,791
Annual pass KS St Pks?	Yes	58%	42%	313,694
	No	64%	36%	1,762,995
Do you own a drone?	Yes	73%	27%	300,019
	No	61%	39%	1,826,160
Drone use over average	Every other month or less	74%	26%	198,659
year? (owners only)	Every month or more	72%	28%	101,360
Drone regs & rules	Great deal	78%	22%	88,443
knowledge?	Some	62%	38%	1,275,395
	Nothing	63%	37%	762,342
Acceptable to see but not	Unacceptable	60%	40%	306,708
hear drones on KDWPT	Neutral	61%	39%	652,598
areas?	Acceptable	64%	36%	1,038,631
More or less willing to visit	Less willing	64%	36%	312,667
KDWPT areas with	No change	61%	39%	1,379,620
designated drone sites?	More willing	68%	32%	433,891
If KDWPT had drone sites,	Unlikely	65%	35%	545,758
likelihood of you flying?	Neutral	64%	36%	575,456
	Likely	60%	40%	787,179

## Visited KDWPT lands?

		Yes	No	Total
What is your age?	18-24	62%	38%	266,664
	25-34	71%	29%	357,121
	35-44	71%	29%	324,734
	45-54	58%	42%	381,254
	55-64	45%	55%	308,670
	65 and older	45%	55%	371,356
What is your gender?	Male	62%	38%	986,012
	Female	55%	45%	1,023,787
Ethnicity/Race	African American/Black	50%	50%	85,375
	Hispanic/Latino	67%	33%	121,005
	White/Caucasian	58%	42%	1,645,201
	Other	57%	43%	158,219
Metro or non-metro county	Urban	56%	44%	1,259,885
	Rural	63%	37%	749,915
Visited KDWPT lands?	Yes	100%	0%	
	No	0%	100%	
Annual pass KS St Pks?	Yes	89%	11%	309,319
	No	53%	47%	1,665,274
Do you own a drone?	Yes	76%	24%	290,071
	No	56%	44%	1,719,729
Drone use over average	Every other month or less	74%	26%	191,319
year? (owners only)	Every month or more	79%	21%	98,752
Drone regs & rules	Great deal	87%	13%	83,303
knowledge?	Some	66%	34%	1,188,110
	Nothing	44%	56%	738,386
Acceptable to see but not	Unacceptable	60%	40%	275,290
hear drones on KDWPT	Neutral	55%	45%	614,139
areas?	Acceptable	64%	36%	1,000,616
More or less willing to visit	Less willing	63%	37%	293,177
KDWPT areas with	No change	54%	46%	1,308,728
designated drone sites?	More willing	69%	31%	407,894
If KDWPT had drone sites,	Unlikely	54%	46%	527,507
likelihood of you flying?	Neutral	51%	49%	534,135
	Likely	69%	31%	740,455

# Annual pass KS St Parks?

		Yes	No	Total
What is your age?	18-24	17%	83%	265,045
	25-34	19%	81%	363,623
	35-44	21%	79%	346,673
	45-54	15%	85%	403,293
	55-64	10%	90%	326,700
	65 and older	9%	91%	371,356
What is your gender?	Male	18%	82%	1,020,205
	Female	12%	88%	1,056,484
Ethnicity/Race	African American/Black	13%	87%	90,164
	Hispanic/Latino	16%	84%	122,896
	White/Caucasian	15%	85%	1,696,550
	Other	15%	85%	167,079
Metro or non-metro county	Urban	14%	86%	1,312,775
	Rural	17%	83%	763,915
Visited KDWPT lands?	Yes	24%	76%	1,150,307
	No	4%	96%	824,287
Annual pass KS St Pks?	Yes	100%	0%	
	No	0%	100%	
Do you own a drone?	Yes	34%	66%	288,637
	No	12%	88%	1,788,053
Drone use over average	Every other month or less	34%	66%	189,885
year? (owners only)	Every month or more	34%	66%	98,752
Drone regs & rules	Great deal	48%	52%	78,581
knowledge?	Some	17%	83%	1,246,166
	Nothing	9%	91%	751,942
Acceptable to see but not	Unacceptable	14%	86%	295,402
hear drones on KDWPT	Neutral	16%	84%	636,591
areas?	Acceptable	16%	84%	1,021,820
More or less willing to visit	Less willing	18%	82%	305,513
KDWPT areas with	No change	12%	88%	1,352,436
designated drone sites?	More willing	23%	77%	418,741
If KDWPT had drone sites,	Unlikely	9%	91%	538,505
likelihood of you flying?	Neutral	14%	86%	562,469
	Likely	21%	79%	760,045

## Do you own a drone?

		Yes	No	Total
What is your age?	18-24	26%	74%	288,159
	25-34	22%	78%	377,720
	35-44	21%	79%	346,673
	45-54	10%	90%	406,264
	55-64	7%	93%	331,247
	65 and older	2%	98%	376,116
What is your gender?	Male	20%	80%	1,042,779
	Female	8%	92%	1,083,400
Ethnicity/Race	African American/Black	13%	87%	92,772
	Hispanic/Latino	29%	71%	128,261
	White/Caucasian	13%	87%	1,722,895
	Other	16%	84%	182,251
Metro or non-metro county	Urban	16%	84%	1,337,834
	Rural	10%	90%	788,345
Visited KDWPT lands?	Yes	19%	81%	1,175,008
	No	8%	92%	834,791
Annual pass KS St Pks?	Yes	31%	69%	313,694
·	No	11%	89%	1,762,995
Do you own a drone?	Yes	100%	0%	
·	No	0%	100%	
Drone use over average	Every other month or less	100%	0%	198,659
year? (owners only)	Every month or more	100%	0%	101,360
Drone regs & rules	Great deal	62%	38%	88,443
knowledge?	Some	16%	84%	1,275,395
	Nothing	5%	95%	762,342
Acceptable to see but not	Unacceptable	13%	87%	306,708
hear drones on KDWPT	Neutral	11%	89%	652,598
areas?	Acceptable	17%	83%	1,038,631
More or less willing to visit	Less willing	9%	91%	312,667
KDWPT areas with	No change	11%	89%	1,379,620
designated drone sites?	More willing	27%	73%	433,891
If KDWPT had drone sites,	Unlikely	3%	97%	545,758
likelihood of you flying?	Neutral	10%	90%	575,456
, , ,	Likely	27%	73%	787,179

Drone use over average year? (owners only)

		Every other	Every month or	
		month or less	more	Total
What is your age?	18-24	70%	30%	74,915
	25-34	71%	29%	81,519
	35-44	55%	45%	72,638
	45-54	67%	33%	39,537
	55-64	60%	40%	22,656
	65 and older	100%	0%	8,753
What is your gender?	Male	60%	40%	210,831
	Female	81%	19%	89,189
Ethnicity/Race	African American/Black	70%	30%	12,492
	Hispanic/Latino	62%	38%	37,242
	White/Caucasian	68%	32%	220,513
	Other	59%	41%	29,772
Metro or non-metro county	Urban	67%	33%	219,490
	Rural	65%	35%	80,530
Visited KDWPT lands?	Yes	64%	36%	220,369
	No	71%	29%	69,701
Annual pass KS St Pks?	Yes	65%	35%	98,279
	No	66%	34%	190,357
Do you own a drone?	Yes	66%	34%	300,019
	No	0%	0%	0
Drone use over average	Every other month or less	100%	0%	
year? (owners only)	Every month or more	0%	100%	
Drone regs & rules	Great deal	39%	61%	54,868
knowledge?	Some	74%	26%	206,390
	Nothing	66%	34%	38,761
Acceptable to see but not	Unacceptable	75%	25%	39,332
hear drones on KDWPT	Neutral	65%	35%	74,788
areas?	Acceptable	65%	35%	179,897
More or less willing to visit	Less willing	85%	15%	28,597
KDWPT areas with	No change	63%	37%	155,959
designated drone sites?	More willing	66%	34%	115,464
If KDWPT had drone sites,	Unlikely	85%	15%	17,285
likelihood of you flying?	Neutral	80%	20%	59,623
	Likely	60%	40%	211,113

Drone regs & rules knowledge?

		Great deal	Some	Nothing	Total
What is your age?	18-24	11%	62%	27%	288,159
	25-34	6%	58%	36%	377,720
	35-44	7%	60%	33%	346,673
	45-54	2%	66%	32%	406,264
	55-64	1%	57%	41%	331,247
	65 and older	0%	56%	44%	376,116
What is your gender?	Male	7%	70%	23%	1,042,779
	Female	2%	50%	48%	1,083,400
Ethnicity/Race	African American/Black	2%	69%	30%	92,772
	Hispanic/Latino	13%	55%	33%	128,261
	White/Caucasian	3%	60%	37%	1,722,895
	Other	8%	63%	29%	182,251
Metro or non-metro county	Urban	5%	59%	36%	1,337,834
	Rural	2%	62%	36%	788,345
Visited KDWPT lands?	Yes	6%	66%	28%	1,175,008
	No	1%	49%	50%	834,791
Annual pass KS St Pks?	Yes	12%	67%	21%	313,694
	No	2%	59%	39%	1,762,995
Do you own a drone?	Yes	18%	69%	13%	300,019
	No	2%	59%	40%	1,826,160
Drone use over average	Every other month or less	11%	76%	13%	198,659
year? (owners only)	Every month or more	33%	54%	13%	101,360
Drone regs & rules	Great deal	100%	0%	0%	
knowledge?	Some	0%	100%	0%	
	Nothing	0%	0%	100%	
Acceptable to see but not	Unacceptable	7%	54%	38%	306,708
hear drones on KDWPT	Neutral	4%	57%	40%	652,598
areas?	Acceptable	3%	68%	28%	1,038,631
More or less willing to visit	Less willing	7%	50%	43%	312,667
KDWPT areas with	No change	2%	59%	39%	1,379,620
designated drone sites?	More willing	9%	71%	20%	433,891
If KDWPT had drone sites,	Unlikely	2%	55%	43%	545,758
likelihood of you flying?	Neutral	3%	56%	41%	575,456
	Likely	7%	71%	22%	787,179

Acceptable to see but not hear drones on KDWPT areas?

		Unacceptable	Neutral	Acceptable	Total
What is your age?	18-24	16%	29%	54%	274,488
	25-34	14%	36%	50%	352,244
	35-44	17%	37%	46%	320,543
	45-54	13%	33%	54%	400,321
	55-64	20%	30%	50%	315,530
	65 and older	13%	30%	57%	334,812
What is your gender?	Male	14%	33%	53%	998,548
	Female	17%	32%	51%	999,390
Ethnicity/Race	African American/Black	13%	33%	54%	85,480
	Hispanic/Latino	20%	38%	42%	121,888
	White/Caucasian	13%	32%	54%	1,634,787
	Other	34%	34%	32%	155,783
Metro or non-metro county	Urban	15%	32%	53%	1,246,944
	Rural	16%	34%	50%	750,994
Visited KDWPT lands?	Yes	15%	29%	56%	1,140,223
	No	15%	37%	48%	749,822
Annual pass KS St Pks?	Yes	14%	34%	52%	306,438
	No	15%	32%	52%	1,647,375
Do you own a drone?	Yes	13%	25%	61%	294,017
	No	16%	34%	50%	1,703,921
Drone use over average	Every other month or less	15%	25%	60%	194,283
year? (owners only)	Every month or more	10%	26%	64%	99,734
Drone regs & rules	Great deal	28%	29%	44%	82,712
knowledge?	Some	13%	30%	57%	1,247,104
	Nothing	17%	39%	44%	668,121
Acceptable to see but not	Unacceptable	100%	0%	0%	
hear drones on KDWPT	Neutral	0%	100%	0%	
areas?	Acceptable	0%	0%	100%	
More or less willing to visit	Less willing	49%	25%	26%	309,036
KDWPT areas with	No change	7%	37%	56%	1,271,894
designated drone sites?	More willing	15%	25%	60%	417,007
If KDWPT had drone sites,	Unlikely	30%	26%	44%	507,595
likelihood of you flying?	Neutral	9%	53%	38%	544,937
	Likely	11%	20%	69%	768,491

More/less willing to visit KDWPT areas w drone sites?

		Less willing	No change	More willing	Total
What is your age?	18-24	9%	61%	31%	288,159
	25-34	15%	63%	22%	377,720
	35-44	12%	65%	22%	346,673
	45-54	15%	64%	21%	406,264
	55-64	18%	65%	17%	331,247
	65 and older	18%	70%	12%	376,116
What is your gender?	Male	15%	63%	22%	1,042,779
	Female	15%	67%	19%	1,083,400
Ethnicity/Race	African American/Black	10%	55%	35%	92,772
	Hispanic/Latino	16%	50%	34%	128,261
	White/Caucasian	15%	67%	18%	1,722,895
	Other	15%	61%	24%	182,251
Metro or non-metro county	Urban	15%	63%	22%	1,337,834
	Rural	14%	68%	18%	788,345
Visited KDWPT lands?	Yes	16%	60%	24%	1,175,008
	No	13%	72%	15%	834,791
Annual pass KS St Pks?	Yes	18%	52%	30%	313,694
	No	14%	67%	18%	1,762,995
Do you own a drone?	Yes	10%	52%	38%	300,019
	No	16%	67%	17%	1,826,160
Drone use over average	Every other month or less	12%	49%	38%	198,659
year? (owners only)	Every month or more	4%	57%	39%	101,360
Drone regs & rules	Great deal	24%	32%	45%	88,443
knowledge?	Some	12%	64%	24%	1,275,395
	Nothing	18%	71%	11%	762,342
Acceptable to see but not	Unacceptable	50%	29%	21%	306,708
hear drones on KDWPT	Neutral	12%	72%	16%	652,598
areas?	Acceptable	8%	68%	24%	1,038,631
More/less willing to visit	Less willing	100%	0%	0%	
KDWPT areas w drone	No change	0%	100%	0%	
sites?	More willing	0%	0%	100%	
If KDWPT had drone	Unlikely	40%	53%	7%	545,758
sites, likelihood of you	Neutral	6%	83%	11%	575,456
flying?	Likely	5%	56%	39%	787,179

If KDWPT had drone sites, likelihood of you flying?

		Unlikely	Neutral	Likely	Total
What is your age?	18-24	18%	23%	59%	266,033
	25-34	24%	32%	45%	325,862
	35-44	29%	33%	38%	309,040
	45-54	28%	33%	39%	378,283
	55-64	29%	35%	36%	299,891
	65 and older	42%	25%	33%	329,286
What is your gender?	Male	23%	33%	44%	980,927
	Female	34%	27%	38%	927,467
Ethnicity/Race	African American/Black	27%	23%	50%	83,340
	Hispanic/Latino	10%	49%	41%	124,034
	White/Caucasian	31%	29%	40%	1,542,678
	Other	20%	33%	47%	158,342
Metro or non-metro county	Urban	30%	31%	39%	1,198,258
	Rural	27%	29%	44%	710,136
Visited KDWPT lands?	Yes	26%	26%	48%	1,071,697
	No	33%	36%	31%	730,400
Annual pass KS St Pks?	Yes	16%	28%	56%	285,632
	No	31%	31%	38%	1,575,386
Do you own a drone?	Yes	6%	21%	73%	288,021
	No	33%	32%	36%	1,620,373
Drone use over average	Every other month or less	8%	25%	67%	188,287
year? (owners only)	Every month or more	3%	12%	85%	99,734
Drone regs & rules	Great deal	13%	21%	66%	84,209
knowledge?	Some	25%	27%	47%	1,182,011
	Nothing	36%	37%	27%	642,173
Acceptable to see but not	Unacceptable	53%	17%	30%	284,336
hear drones on KDWPT	Neutral	23%	50%	27%	578,204
areas?	Acceptable	23%	21%	55%	958,483
More or less willing to visit	Less willing	75%	11%	14%	293,126
KDWPT areas with	No change	24%	40%	36%	1,204,192
designated drone sites?	More willing	9%	16%	75%	411,077
If KDWPT had drone sites,	Unlikely	100%	0%	0%	
likelihood of you flying?	Neutral	0%	100%	0%	
	Likely	0%	0%	100%	

			Hunter	
		No	Yes	Total
What is your age?	18-24	85%	15%	288,159
	25-34	80%	20%	377,720
	35-44	90%	10%	346,673
	45-54	83%	17%	406,264
	55-64	92%	8%	331,247
	65 and older	93%	7%	376,116
What is your gender?	Male	79%	21%	1,042,779
	Female	95%	5%	1,083,400
Ethnicity/Race	African American/Black	97%	3%	92,772
	Hispanic/Latino	89%	11%	128,261
	White/Caucasian	86%	14%	1,722,895
	Other	93%	7%	182,251
Metro or non-metro county	Urban	89%	11%	1,337,834
	Rural	84%	16%	788,345
Visited KDWPT lands?	Yes	83%	17%	1,175,008
	No	92%	8%	834,791
Annual pass KS St Pks?	Yes	76%	24%	313,694
	No	89%	11%	1,762,995
Do you own a drone?	Yes	73%	27%	300,019
	No	89%	11%	1,826,160
Drone use over average	Every other month or less	76%	24%	198,659
year? (owners only)	Every month or more	68%	32%	101,360
Drone regs & rules	Great deal	77%	23%	88,443
knowledge?	Some	85%	15%	1,275,395
	Nothing	92%	8%	762,342
Acceptable to see but not	Unacceptable	81%	19%	306,708
hear drones on KDWPT	Neutral	87%	13%	652,598
areas?	Acceptable	88%	12%	1,038,631
More or less willing to visit	Less willing	83%	17%	312,667
KDWPT areas with	No change	89%	11%	1,379,620
designated drone sites?	More willing	83%	17%	433,891
If KDWPT had drone sites,	Unlikely	89%	11%	545,758
likelihood of you flying?	Neutral	88%	12%	575,456

			Angler	
		No	Yes	Total
What is your age?	18-24	90%	10%	288,159
	25-34	84%	16%	377,720
	35-44	83%	17%	346,673
	45-54	83%	17%	406,264
	55-64	78%	22%	331,247
	65 and older	84%	16%	376,116
What is your gender?	Male	73%	27%	1,042,779
	Female	93%	7%	1,083,400
Ethnicity/Race	African American/Black	95%	5%	92,772
	Hispanic/Latino	97%	3%	128,261
	White/Caucasian	82%	18%	1,722,895
	Other	86%	14%	182,251
Metro or non-metro county	Urban	85%	15%	1,337,834
	Rural	81%	19%	788,345
Visited KDWPT lands?	Yes	74%	26%	1,175,008
	No	96%	4%	834,791
Annual pass KS St Pks?	Yes	70%	30%	313,694
	No	86%	14%	1,762,995
Do you own a drone?	Yes	70%	30%	300,019
	No	86%	14%	1,826,160
Drone use over average	Every other month or less	75%	25%	198,659
year? (owners only)	Every month or more	62%	38%	101,360
Drone regs & rules	Great deal	68%	32%	88,443
knowledge?	Some	81%	19%	1,275,395
	Nothing	90%	10%	762,342
Acceptable to see but not	Unacceptable	80%	20%	306,708
hear drones on KDWPT	Neutral	83%	17%	652,598
areas?	Acceptable	83%	17%	1,038,631
More or less willing to visit KDWPT areas with	Less willing	77%	23%	312,667
	No change	85%	15%	1,379,620
designated drone sites?	More willing	84%	16%	433,891
If KDWPT had drone sites,	Unlikely	87%	13%	545,758
likelihood of you flying?	Neutral	84%	16%	575,456
	Likely	80%	20%	787,179

No   Yes   Total				Camper	
25-34			No	Yes	Total
35-44   56%   44%   346,673   45-54   57%   43%   406,264   55-64   65%   35%   331,247   65 and older   83%   17%   376,116   What is your gender?   Male   58%   42%   1,042,779   Female   70%   30%   1,083,400   Ethnicity/Race   African American/Black   76%   24%   92,772   Hispanic/Latino   67%   33%   128,261   White/Caucasian   64%   36%   182,251   White/Caucasian   64%   36%   182,251   White/Caucasian   64%   36%   182,251   White/Caucasian   64%   36%   1337,834   Rural   63%   37%   788,345   Visited KDWPT lands?   Yes   52%   48%   1,175,008   No   83%   17%   834,791   No   69%   31%   1,762,995   No   1	What is your age?	18-24	65%	35%	288,159
45-54		25-34	61%	39%	377,720
55-64   65%   35%   331,247   65 and older   83%   17%   376,116		35-44	56%	44%	346,673
Male		45-54	57%	43%	406,264
What is your gender?         Male         58%         42%         1,042,779           Female         70%         30%         1,083,400           Ethnicity/Race         African American/Black         76%         24%         92,772           Hispanic/Latino         67%         33%         128,261           White/Caucasian         64%         36%         182,251           Metro or non-metro county         Urban         65%         35%         1,337,834           Rural         63%         37%         788,345           Visited KDWPT lands?         Yes         52%         48%         1,175,008           No         83%         17%         834,791           Annual pass KS St Pks?         Yes         41%         59%         313,694           No         69%         31%         1,762,995           No         69%         31%         1,762,995           No         69%         31%         1,762,995           No         68%         32%         1,826,160           Drone use over average         Every other month or less         47%         53%         198,659           year? (owners only)         Every month or more         41%         59%		55-64	65%	35%	331,247
Female   70%   30%   1,083,400		65 and older	83%	17%	376,116
Ethnicity/Race         African American/Black         76%         24%         92,772           Hispanic/Latino         67%         33%         128,261           White/Caucasian         64%         36%         1,722,895           Other         64%         36%         182,251           Metro or non-metro county         Urban         65%         35%         1,337,834           Rural         63%         37%         788,345           Visited KDWPT lands?         Yes         52%         48%         1,175,008           No         83%         17%         834,791           Annual pass KS St Pks?         Yes         41%         59%         313,694           No         69%         31%         1,762,995           No         69%         31%         1,762,995           No         68%         32%         1,826,160           Drone use over average         Every other month or less         47%         53%         198,659           year? (owners only)         Every month or more         41%         59%         101,360           Drone regs & rules         Great deal         42%         58%         88,443           knowledge?         Some         61	What is your gender?	Male	58%	42%	1,042,779
Hispanic/Latino   67%   33%   128,261   White/Caucasian   64%   36%   1,722,895   Other   64%   36%   182,251   Metro or non-metro county   Urban   65%   35%   1,337,834   Rural   63%   37%   788,345   Visited KDWPT lands?   Yes   52%   48%   1,175,008   No   83%   17%   834,791   Annual pass KS St Pks?   Yes   41%   59%   313,694   No   69%   31%   1,762,995   No   68%   32%   1,826,160   Drone use over average   Every other month or less   47%   53%   198,659   year? (owners only)   Every month or more   41%   59%   101,360   Drone regs & rules   Great deal   42%   58%   88,443   knowledge?   Some   61%   39%   1,275,395   Nothing   72%   28%   762,342   Acceptable to see but not hear drones on KDWPT   Neutral   62%   38%   652,598   areas?   Acceptable   65%   35%   1,038,631   More or less willing to visit   Less willing   65%   35%   312,667   KDWPT areas with   No change   68%   32%   1,379,620   designated drone sites,   Unlikely   73%   27%   545,758   likelihood of you flying?   Neutral   65%   35%   575,456		Female	70%	30%	1,083,400
White/Caucasian         64%         36%         1,722,895           Other         64%         36%         182,251           Metro or non-metro county         Urban         65%         35%         1,337,834           Rural         63%         37%         788,345           Visited KDWPT lands?         Yes         52%         48%         1,175,008           No         83%         17%         834,791           Annual pass KS St Pks?         Yes         41%         59%         313,694           No         69%         31%         1,762,995           Do you own a drone?         Yes         45%         55%         300,019           No         68%         32%         1,826,160           Drone use over average         Every other month or less         47%         53%         198,659           year? (owners only)         Every month or more         41%         59%         101,360           Drone regs & rules         Great deal         42%         58%         88,443           knowledge?         Some         61%         39%         1,275,395           Nothing         72%         28%         762,342           Acceptable to see but not hear drones on KD	Ethnicity/Race	African American/Black	76%	24%	92,772
Other         64%         36%         182,251           Metro or non-metro county         Urban         65%         35%         1,337,834           Rural         63%         37%         788,345           Visited KDWPT lands?         Yes         52%         48%         1,175,008           No         83%         17%         834,791           Annual pass KS St Pks?         Yes         41%         59%         313,694           No         69%         31%         1,762,995           Do you own a drone?         Yes         45%         55%         300,019           No         68%         32%         1,826,160           Drone use over average         Every other month or less         47%         53%         198,659           year? (owners only)         Every month or more         41%         59%         101,360           Drone regs & rules         Great deal         42%         58%         88,443           knowledge?         Some         61%         39%         1,275,395           Nothing         72%         28%         762,342           Acceptable to see but not be underested by the company of the		Hispanic/Latino	67%	33%	128,261
Metro or non-metro county         Urban         65%         35%         1,337,834           Rural         63%         37%         788,345           Visited KDWPT lands?         Yes         52%         48%         1,175,008           No         83%         17%         834,791           Annual pass KS St Pks?         Yes         41%         59%         313,694           No         69%         31%         1,762,995           Do you own a drone?         Yes         45%         55%         300,019           No         68%         32%         1,826,160           Drone use over average         Every other month or less         47%         53%         198,659           year? (owners only)         Every month or more         41%         59%         101,360           Drone regs & rules         Great deal         42%         58%         88,443           knowledge?         Some         61%         39%         1,275,395           Nothing         72%         28%         762,342           Acceptable to see but not hear drones on KDWPT         Neutral         62%         38%         652,598           areas?         Acceptable         65%         35%         1,03		White/Caucasian	64%	36%	1,722,895
Rural   63%   37%   788,345		Other	64%	36%	182,251
Visited KDWPT lands?         Yes         52%         48%         1,175,008           No         83%         17%         834,791           Annual pass KS St Pks?         Yes         41%         59%         313,694           No         69%         31%         1,762,995           Do you own a drone?         Yes         45%         55%         300,019           No         68%         32%         1,826,160           Drone use over average         Every other month or less         47%         53%         198,659           year? (owners only)         Every month or more         41%         59%         101,360           Drone regs & rules         Great deal         42%         58%         88,443           knowledge?         Some         61%         39%         1,275,395           Nothing         72%         28%         762,342           Acceptable to see but not hear drones on KDWPT         Neutral         62%         38%         652,598           areas?         Acceptable         65%         35%         1,038,631           More or less willing to visit KDWPT areas with No change         68%         32%         1,379,620           designated drone sites?         More willing	Metro or non-metro county	Urban	65%	35%	1,337,834
No   83%   17%   834,791		Rural	63%	37%	788,345
Annual pass KS St Pks?         Yes         41%         59%         313,694           No         69%         31%         1,762,995           Do you own a drone?         Yes         45%         55%         300,019           No         68%         32%         1,826,160           Drone use over average         Every other month or less         47%         53%         198,659           year? (owners only)         Every month or more         41%         59%         101,360           Drone regs & rules         Great deal         42%         58%         88,443           knowledge?         Some         61%         39%         1,275,395           Nothing         72%         28%         762,342           Acceptable to see but not hear drones on KDWPT         Neutral         62%         38%         652,598           areas?         Acceptable         65%         35%         1,038,631           More or less willing to visit         Less willing         65%         35%         1,379,620           KDWPT areas with         No change         68%         32%         1,379,620           designated drone sites?         More willing         52%         48%         433,891           If	Visited KDWPT lands?	Yes	52%	48%	1,175,008
No         69%         31%         1,762,995           Do you own a drone?         Yes         45%         55%         300,019           No         68%         32%         1,826,160           Drone use over average year? (owners only)         Every other month or less         47%         53%         198,659           year? (owners only)         Every month or more         41%         59%         101,360           Drone regs & rules         Great deal         42%         58%         88,443           knowledge?         Some         61%         39%         1,275,395           Nothing         72%         28%         762,342           Acceptable to see but not bear drones on KDWPT         Neutral         62%         38%         652,598           hear drones on KDWPT         Neutral         62%         38%         652,598           areas?         Acceptable         65%         35%         1,038,631           More or less willing to visit         Less willing         65%         35%         312,667           KDWPT areas with         No change         68%         32%         1,379,620           designated drone sites?         More willing         52%         48%         433,891		No	83%	17%	834,791
No	Annual pass KS St Pks?	Yes	41%	59%	313,694
No         68%         32%         1,826,160           Drone use over average         Every other month or less         47%         53%         198,659           year? (owners only)         Every month or more         41%         59%         101,360           Drone regs & rules         Great deal         42%         58%         88,443           knowledge?         Some         61%         39%         1,275,395           Nothing         72%         28%         762,342           Acceptable to see but not hear drones on KDWPT         Unacceptable         61%         39%         306,708           hear drones on KDWPT         Neutral         62%         38%         652,598           areas?         Acceptable         65%         35%         1,038,631           More or less willing to visit         Less willing         65%         35%         312,667           KDWPT areas with No change         68%         32%         1,379,620           designated drone sites?         More willing         52%         48%         433,891           If KDWPT had drone sites, likelihood of you flying?         Neutral         65%         35%         575,456		No	69%	31%	1,762,995
Drone use over average year? (owners only)         Every other month or less         47%         53%         198,659           year? (owners only)         Every month or more         41%         59%         101,360           Drone regs & rules         Great deal         42%         58%         88,443           knowledge?         Some         61%         39%         1,275,395           Nothing         72%         28%         762,342           Acceptable to see but not hear drones on KDWPT         Unacceptable         61%         39%         306,708           hear drones on KDWPT         Neutral         62%         38%         652,598           areas?         Acceptable         65%         35%         1,038,631           More or less willing to visit         Less willing         65%         35%         312,667           KDWPT areas with designated drone sites?         More willing         52%         48%         433,891           If KDWPT had drone sites, likelihood of you flying?         Unlikely         73%         27%         545,758           likelihood of you flying?         Neutral         65%         35%         575,456	Do you own a drone?	Yes	45%	55%	300,019
year? (owners only)         Every month or more         41%         59%         101,360           Drone regs & rules         Great deal         42%         58%         88,443           knowledge?         Some         61%         39%         1,275,395           Nothing         72%         28%         762,342           Acceptable to see but not hear drones on KDWPT         Neutral         62%         38%         652,598           areas?         Acceptable         65%         35%         1,038,631           More or less willing to visit KDWPT areas with No change         65%         35%         312,667           KDWPT areas with designated drone sites?         More willing         52%         48%         433,891           If KDWPT had drone sites, likelihood of you flying?         Neutral         65%         35%         575,456		No	68%	32%	1,826,160
Drone regs & rules         Great deal         42%         58%         88,443           knowledge?         Some         61%         39%         1,275,395           Nothing         72%         28%         762,342           Acceptable to see but not hear drones on KDWPT         Unacceptable         61%         39%         306,708           hear drones on KDWPT         Neutral         62%         38%         652,598           areas?         Acceptable         65%         35%         1,038,631           More or less willing to visit         Less willing         65%         35%         312,667           KDWPT areas with         No change         68%         32%         1,379,620           designated drone sites?         More willing         52%         48%         433,891           If KDWPT had drone sites, likelihood of you flying?         Unlikely         73%         27%         545,758           likelihood of you flying?         Neutral         65%         35%         575,456	Drone use over average	Every other month or less	47%	53%	198,659
knowledge?         Some         61%         39%         1,275,395           Nothing         72%         28%         762,342           Acceptable to see but not hear drones on KDWPT         Unacceptable         61%         39%         306,708           hear drones on KDWPT         Neutral         62%         38%         652,598           areas?         Acceptable         65%         35%         1,038,631           More or less willing to visit         Less willing         65%         35%         312,667           KDWPT areas with No change         68%         32%         1,379,620           designated drone sites?         More willing         52%         48%         433,891           If KDWPT had drone sites, Unlikely         73%         27%         545,758           likelihood of you flying?         Neutral         65%         35%         575,456	year? (owners only)	Every month or more	41%	59%	101,360
Nothing         72%         28%         762,342           Acceptable to see but not hear drones on KDWPT         Unacceptable         61%         39%         306,708           hear drones on KDWPT         Neutral         62%         38%         652,598           areas?         Acceptable         65%         35%         1,038,631           More or less willing to visit         Less willing         65%         35%         312,667           KDWPT areas with less willing         No change         68%         32%         1,379,620           designated drone sites?         More willing         52%         48%         433,891           If KDWPT had drone sites, likelihood of you flying?         Unlikely         73%         27%         545,758           likelihood of you flying?         Neutral         65%         35%         575,456	Drone regs & rules	Great deal	42%	58%	88,443
Acceptable to see but not hear drones on KDWPT         Unacceptable         61%         39%         306,708           hear drones on KDWPT         Neutral         62%         38%         652,598           areas?         Acceptable         65%         35%         1,038,631           More or less willing to visit         Less willing         65%         35%         312,667           KDWPT areas with designated drone sites?         No change         68%         32%         1,379,620           designated drone sites?         More willing         52%         48%         433,891           If KDWPT had drone sites, likelihood of you flying?         Neutral         65%         35%         575,456	knowledge?	Some	61%	39%	1,275,395
hear drones on KDWPT         Neutral         62%         38%         652,598           areas?         Acceptable         65%         35%         1,038,631           More or less willing to visit         Less willing         65%         35%         312,667           KDWPT areas with         No change         68%         32%         1,379,620           designated drone sites?         More willing         52%         48%         433,891           If KDWPT had drone sites,         Unlikely         73%         27%         545,758           likelihood of you flying?         Neutral         65%         35%         575,456		Nothing	72%	28%	762,342
areas?         Acceptable         65%         35%         1,038,631           More or less willing to visit         Less willing         65%         35%         312,667           KDWPT areas with         No change         68%         32%         1,379,620           designated drone sites?         More willing         52%         48%         433,891           If KDWPT had drone sites,         Unlikely         73%         27%         545,758           likelihood of you flying?         Neutral         65%         35%         575,456	Acceptable to see but not	Unacceptable	61%	39%	306,708
More or less willing to visit         Less willing         65%         35%         312,667           KDWPT areas with         No change         68%         32%         1,379,620           designated drone sites?         More willing         52%         48%         433,891           If KDWPT had drone sites,         Unlikely         73%         27%         545,758           likelihood of you flying?         Neutral         65%         35%         575,456	hear drones on KDWPT	Neutral	62%	38%	652,598
KDWPT areas with         No change         68%         32%         1,379,620           designated drone sites?         More willing         52%         48%         433,891           If KDWPT had drone sites,         Unlikely         73%         27%         545,758           likelihood of you flying?         Neutral         65%         35%         575,456	areas?	Acceptable	65%	35%	1,038,631
designated drone sites? More willing 52% 48% 433,891  If KDWPT had drone sites, Unlikely 73% 27% 545,758  likelihood of you flying? Neutral 65% 35% 575,456	More or less willing to visit	Less willing	65%	35%	312,667
If KDWPT had drone sites, Unlikely 73% 27% 545,758 likelihood of you flying? Neutral 65% 35% 575,456	KDWPT areas with	No change	68%	32%	1,379,620
If KDWPT had drone sites,Unlikely73%27%545,758likelihood of you flying?Neutral65%35%575,456	designated drone sites?	More willing	52%	48%	433,891
likelihood of you flying? Neutral 65% 35% 575,456	If KDWPT had drone sites,	Unlikely	73%	27%	
	likelihood of you flying?	Neutral			
		Likely			787,179

# Paddler (like kayaker)

		No	Yes	Total
What is your age?	18-24	94%	6%	288,159
	25-34	91%	9%	377,720
	35-44	94%	6%	346,673
	45-54	92%	8%	406,264
	55-64	94%	6%	331,247
	65 and older	100%	0%	376,116
What is your gender?	Male	93%	7%	1,042,779
	Female	95%	5%	1,083,400
Ethnicity/Race	African American/Black	97%	3%	92,772
	Hispanic/Latino	92%	8%	128,261
	White/Caucasian	94%	6%	1,722,895
	Other	93%	7%	182,251
Metro or non-metro county	Urban	95%	5%	1,337,834
	Rural	93%	7%	788,345
Visited KDWPT lands?	Yes	91%	9%	1,175,008
	No	99%	1%	834,791
Annual pass KS St Pks?	Yes	85%	15%	313,694
	No	96%	4%	1,762,995
Do you own a drone?	Yes	90%	10%	300,019
	No	95%	5%	1,826,160
Drone use over average	Every other month or less	95%	5%	198,659
year? (owners only)	Every month or more	79%	21%	101,360
Drone regs & rules	Great deal	75%	25%	88,443
knowledge?	Some	94%	6%	1,275,395
	Nothing	97%	3%	762,342
Acceptable to see but not	Unacceptable	94%	6%	306,708
hear drones on KDWPT	Neutral	93%	7%	652,598
areas?	Acceptable	95%	5%	1,038,631
More or less willing to visit	Less willing	94%	6%	312,667
KDWPT areas with	No change	95%	5%	1,379,620
designated drone sites?	More willing	92%	8%	433,891
If KDWPT had drone sites,	Unlikely	95%	5%	545,758
likelihood of you flying?	Neutral	95%	5%	575,456
	Likely	92%	8%	787,179

			Boater	
		No	Yes	Total
What is your age?	18-24	92%	8%	288,159
	25-34	87%	13%	377,720
	35-44	90%	10%	346,673
	45-54	89%	11%	406,264
	55-64	90%	10%	331,247
	65 and older	91%	9%	376,116
What is your gender?	Male	89%	11%	1,042,779
	Female	90%	10%	1,083,400
Ethnicity/Race	African American/Black	94%	6%	92,772
	Hispanic/Latino	94%	6%	128,261
	White/Caucasian	89%	11%	1,722,895
	Other	88%	12%	182,251
Metro or non-metro county	Urban	89%	11%	1,337,834
	Rural	90%	10%	788,345
Visited KDWPT lands?	Yes	85%	15%	1,175,008
	No	97%	3%	834,791
Annual pass KS St Pks?	Yes	74%	26%	313,694
	No	93%	7%	1,762,995
Do you own a drone?	Yes	77%	23%	300,019
	No	92%	8%	1,826,160
Drone use over average	Every other month or less	81%	19%	198,659
year? (owners only)	Every month or more	70%	30%	101,360
Drone regs & rules	Great deal	69%	31%	88,443
knowledge?	Some	89%	11%	1,275,395
	Nothing	94%	6%	762,342
Acceptable to see but not	Unacceptable	89%	11%	306,708
hear drones on KDWPT	Neutral	90%	10%	652,598
areas?	Acceptable	89%	11%	1,038,631
More or less willing to visit	Less willing	85%	15%	312,667
KDWPT areas with	No change	91%	9%	1,379,620
designated drone sites?	More willing	89%	11%	433,891
If KDWPT had drone sites,	Unlikely	96%	4%	545,758
likelihood of you flying?	Neutral	89%	11%	575,456
	Likely	87%	13%	787,179

			Hiker	
		No	Yes	Total
What is your age?	18-24	73%	27%	288,159
	25-34	65%	35%	377,720
	35-44	65%	35%	346,673
	45-54	70%	30%	406,264
	55-64	75%	25%	331,247
	65 and older	89%	11%	376,116
What is your gender?	Male	69%	31%	1,042,779
	Female	76%	24%	1,083,400
Ethnicity/Race	African American/Black	84%	16%	92,772
	Hispanic/Latino	59%	41%	128,261
	White/Caucasian	74%	26%	1,722,895
	Other	65%	35%	182,251
Metro or non-metro county	Urban	73%	27%	1,337,834
	Rural	73%	27%	788,345
Visited KDWPT lands?	Yes	63%	37%	1,175,008
	No	87%	13%	834,791
Annual pass KS St Pks?	Yes	65%	35%	313,694
	No	75%	25%	1,762,995
Do you own a drone?	Yes	60%	40%	300,019
	No	75%	25%	1,826,160
Drone use over average	Every other month or less	65%	35%	198,659
year? (owners only)	Every month or more	51%	49%	101,360
Drone regs & rules	Great deal	63%	37%	88,443
knowledge?	Some	68%	32%	1,275,395
	Nothing	82%	18%	762,342
Acceptable to see but not	Unacceptable	69%	31%	306,708
hear drones on KDWPT	Neutral	77%	23%	652,598
areas?	Acceptable	69%	31%	1,038,631
More or less willing to visit KDWPT areas with	Less willing	68%	32%	312,667
	No change	77%	23%	1,379,620
designated drone sites?	More willing	62%	38%	433,891
If KDWPT had drone sites,	Unlikely	75%	25%	545,758
likelihood of you flying?	Neutral	76%	24%	575,456
	Likely	66%	34%	787,179

			Walker	
		No	Yes	Total
What is your age?	18-24	57%	43%	288,159
	25-34	45%	55%	377,720
	35-44	47%	53%	346,673
	45-54	42%	58%	406,264
	55-64	54%	46%	331,247
	65 and older	61%	39%	376,116
What is your gender?	Male	55%	45%	1,042,779
	Female	46%	54%	1,083,400
Ethnicity/Race	African American/Black	47%	53%	92,772
	Hispanic/Latino	53%	47%	128,261
	White/Caucasian	52%	48%	1,722,895
	Other	42%	58%	182,251
Metro or non-metro county	Urban	52%	48%	1,337,834
	Rural	48%	52%	788,345
Visited KDWPT lands?	Yes	41%	59%	1,175,008
	No	64%	36%	834,791
Annual pass KS St Pks?	Yes	53%	47%	313,694
	No	50%	50%	1,762,995
Do you own a drone?	Yes	49%	51%	300,019
	No	51%	49%	1,826,160
Drone use over average	Every other month or less	56%	44%	198,659
year? (owners only)	Every month or more	34%	66%	101,360
Drone regs & rules	Great deal	56%	44%	88,443
knowledge?	Some	45%	55%	1,275,395
	Nothing	59%	41%	762,342
Acceptable to see but not	Unacceptable	55%	45%	306,708
hear drones on KDWPT	Neutral	53%	47%	652,598
areas?	Acceptable	46%	54%	1,038,631
More or less willing to visit KDWPT areas with	Less willing	50%	50%	312,667
	No change	55%	45%	1,379,620
designated drone sites?	More willing	38%	62%	433,891
If KDWPT had drone sites,	Unlikely	48%	52%	545,758
likelihood of you flying?	Neutral	58%	42%	575,456
	Likely	44%	56%	787,179

## Runner/Jogger

		No	Yes	Total
What is your age?	18-24	71%	29%	288,159
	25-34	81%	19%	377,720
	35-44	79%	21%	346,673
	45-54	90%	10%	406,264
	55-64	95%	5%	331,247
	65 and older	98%	2%	376,116
What is your gender?	Male	84%	16%	1,042,779
	Female	88%	12%	1,083,400
Ethnicity/Race	African American/Black	84%	16%	92,772
	Hispanic/Latino	76%	24%	128,261
	White/Caucasian	88%	12%	1,722,895
	Other	74%	26%	182,251
Metro or non-metro county	Urban	85%	15%	1,337,834
	Rural	88%	12%	788,345
Visited KDWPT lands?	Yes	82%	18%	1,175,008
	No	93%	7%	834,791
Annual pass KS St Pks?	Yes	77%	23%	313,694
	No	88%	12%	1,762,995
Do you own a drone?	Yes	74%	26%	300,019
	No	88%	12%	1,826,160
Drone use over average	Every other month or less	75%	25%	198,659
year? (owners only)	Every month or more	72%	28%	101,360
Drone regs & rules	Great deal	73%	27%	88,443
knowledge?	Some	82%	18%	1,275,395
	Nothing	94%	6%	762,342
Acceptable to see but not	Unacceptable	89%	11%	306,708
hear drones on KDWPT	Neutral	87%	13%	652,598
areas?	Acceptable	83%	17%	1,038,631
More or less willing to visit	Less willing	86%	14%	312,667
KDWPT areas with	No change	88%	12%	1,379,620
designated drone sites?	More willing	80%	20%	433,891
If KDWPT had drone sites,	Unlikely	90%	10%	545,758
likelihood of you flying?	Neutral	87%	13%	575,456
	Likely	80%	20%	787,179

#### Wildlife (bird) watcher

		No	Yes	Total
What is your age?	18-24	87%	13%	288,159
	25-34	86%	14%	377,720
	35-44	80%	20%	346,673
	45-54	76%	24%	406,264
	55-64	80%	20%	331,247
	65 and older	88%	12%	376,116
What is your gender?	Male	84%	16%	1,042,779
	Female	81%	19%	1,083,400
Ethnicity/Race	African American/Black	86%	14%	92,772
	Hispanic/Latino	69%	31%	128,261
	White/Caucasian	84%	16%	1,722,895
	Other	80%	20%	182,251
Metro or non-metro county	Urban	84%	16%	1,337,834
	Rural	81%	19%	788,345
Visited KDWPT lands?	Yes	74%	26%	1,175,008
	No	94%	6%	834,791
Annual pass KS St Pks?	Yes	78%	22%	313,694
	No	84%	16%	1,762,995
Do you own a drone?	Yes	76%	24%	300,019
	No	84%	16%	1,826,160
Drone use over average	Every other month or less	80%	20%	198,659
year? (owners only)	Every month or more	69%	31%	101,360
Drone regs & rules	Great deal	62%	38%	88,443
knowledge?	Some	81%	19%	1,275,395
	Nothing	87%	13%	762,342
Acceptable to see but not	Unacceptable	73%	27%	306,708
hear drones on KDWPT	Neutral	84%	16%	652,598
areas?	Acceptable	83%	17%	1,038,631
More or less willing to visit	Less willing	74%	26%	312,667
KDWPT areas with	No change	88%	12%	1,379,620
designated drone sites?	More willing	72%	28%	433,891
If KDWPT had drone sites,	Unlikely	83%	17%	545,758
likelihood of you flying?	Neutral	90%	10%	575,456
	Likely	77%	23%	787,179

Ρ	hot	og	rap	her

		No	Yes	Total
What is your age?	18-24	72%	28%	288,159
	25-34	79%	21%	377,720
	35-44	80%	20%	346,673
	45-54	81%	19%	406,264
	55-64	86%	14%	331,247
	65 and older	83%	17%	376,116
What is your gender?	Male	84%	16%	1,042,779
, 0	Female	77%	23%	1,083,400
Ethnicity/Race	African American/Black	85%	15%	92,772
,	Hispanic/Latino	69%	31%	128,261
	White/Caucasian	82%	18%	1,722,895
	Other	75%	25%	182,251
Metro or non-metro county	Urban	80%	20%	1,337,834
	Rural	81%	19%	788,345
Visited KDWPT lands?	Yes	75%	25%	1,175,008
	No	86%	14%	834,791
Annual pass KS St Pks?	Yes	74%	26%	313,694
	No	82%	18%	1,762,995
Do you own a drone?	Yes	72%	28%	300,019
	No	82%	18%	1,826,160
Drone use over average	Every other month or less	78%	22%	198,659
year? (owners only)	Every month or more	60%	40%	101,360
Drone regs & rules	Great deal	76%	24%	88,443
knowledge?	Some	78%	22%	1,275,395
	Nothing	85%	15%	762,342
Acceptable to see but not	Unacceptable	78%	22%	306,708
hear drones on KDWPT	Neutral	82%	18%	652,598
areas?	Acceptable	79%	21%	1,038,631
More or less willing to visit KDWPT areas with	Less willing	80%	20%	312,667
	No change	84%	16%	1,379,620
designated drone sites?	More willing	70%	30%	433,891
If KDWPT had drone sites,	Unlikely	86%	14%	545,758
likelihood of you flying?	Neutral	85%	15%	575,456
	Likely	73%	27%	787,179

#### Environmental educator

		No	Yes	Total
What is your age?	18-24	99%	1%	288,159
	25-34	99%	1%	377,720
	35-44	98%	2%	346,673
	45-54	98%	2%	406,264
	55-64	99%	1%	331,247
	65 and older	100%	0%	376,116
What is your gender?	Male	99%	1%	1,042,779
	Female	99%	1%	1,083,400
Ethnicity/Race	African American/Black	96%	4%	92,772
	Hispanic/Latino	100%	0%	128,261
	White/Caucasian	99%	1%	1,722,895
	Other	98%	2%	182,251
Metro or non-metro county	Urban	99%	1%	1,337,834
	Rural	98%	2%	788,345
Visited KDWPT lands?	Yes	98%	2%	1,175,008
	No	100%	0%	834,791
Annual pass KS St Pks?	Yes	100%	0%	313,694
	No	99%	1%	1,762,995
Do you own a drone?	Yes	99%	1%	300,019
	No	99%	1%	1,826,160
Drone use over average	Every other month or less	99%	1%	198,659
year? (owners only)	Every month or more	100%	0%	101,360
Drone regs & rules	Great deal	98%	2%	88,443
knowledge?	Some	99%	1%	1,275,395
	Nothing	99%	1%	762,342
Acceptable to see but not	Unacceptable	99%	1%	306,708
hear drones on KDWPT	Neutral	99%	1%	652,598
areas?	Acceptable	99%	1%	1,038,631
More or less willing to visit KDWPT areas with	Less willing	100%	0%	312,667
	No change	99%	1%	1,379,620
designated drone sites?	More willing	98%	2%	433,891
If KDWPT had drone sites,	Unlikely	100%	0%	545,758
likelihood of you flying?	Neutral	100%	0%	575,456
	Likely	98%	2%	787,179

			Bicyclist	
		No	Yes	Total
What is your age?	18-24	84%	16%	288,159
	25-34	88%	12%	377,720
	35-44	87%	13%	346,673
	45-54	82%	18%	406,264
	55-64	87%	13%	331,247
	65 and older	93%	7%	376,116
What is your gender?	Male	83%	17%	1,042,779
	Female	90%	10%	1,083,400
Ethnicity/Race	African American/Black	79%	21%	92,772
	Hispanic/Latino	70%	30%	128,261
	White/Caucasian	88%	12%	1,722,895
	Other	85%	15%	182,251
Metro or non-metro county	Urban	85%	15%	1,337,834
	Rural	89%	11%	788,345
Visited KDWPT lands?	Yes	83%	17%	1,175,008
	No	92%	8%	834,791
Annual pass KS St Pks?	Yes	87%	13%	313,694
	No	86%	14%	1,762,995
Do you own a drone?	Yes	76%	24%	300,019
	No	88%	12%	1,826,160
Drone use over average	Every other month or less	81%	19%	198,659
year? (owners only)	Every month or more	67%	33%	101,360
Drone regs & rules	Great deal	64%	36%	88,443
knowledge?	Some	85%	15%	1,275,395
	Nothing	92%	8%	762,342
Acceptable to see but not	Unacceptable	83%	17%	306,708
hear drones on KDWPT	Neutral	89%	11%	652,598
areas?	Acceptable	85%	15%	1,038,631
More or less willing to visit	Less willing	85%	15%	312,667
KDWPT areas with	No change	90%	10%	1,379,620
designated drone sites?	More willing	79%	21%	433,891
If KDWPT had drone sites,	Unlikely	91%	9%	545,758
likelihood of you flying?	Neutral	89%	11%	575,456
	Likely	81%	19%	787,179

#### Horseback rider

		No	Yes	Total
What is your age?	18-24	92%	8%	288,159
	25-34	94%	6%	377,720
	35-44	94%	6%	346,673
	45-54	88%	12%	406,264
	55-64	92%	8%	331,247
	65 and older	99%	1%	376,116
What is your gender?	Male	95%	5%	1,042,779
	Female	92%	8%	1,083,400
Ethnicity/Race	African American/Black	87%	13%	92,772
	Hispanic/Latino	92%	8%	128,261
	White/Caucasian	94%	6%	1,722,895
	Other	90%	10%	182,251
Metro or non-metro county	Urban	94%	6%	1,337,834
	Rural	92%	8%	788,345
Visited KDWPT lands?	Yes	92%	8%	1,175,008
	No	94%	6%	834,791
Annual pass KS St Pks?	Yes	92%	8%	313,694
	No	94%	6%	1,762,995
Do you own a drone?	Yes	87%	13%	300,019
	No	94%	6%	1,826,160
Drone use over average	Every other month or less	88%	12%	198,659
year? (owners only)	Every month or more	85%	15%	101,360
Drone regs & rules	Great deal	91%	9%	88,443
knowledge?	Some	92%	8%	1,275,395
	Nothing	95%	5%	762,342
Acceptable to see but not	Unacceptable	90%	10%	306,708
hear drones on KDWPT	Neutral	95%	5%	652,598
areas?	Acceptable	93%	7%	1,038,631
More or less willing to visit KDWPT areas with	Less willing	91%	9%	312,667
	No change	94%	6%	1,379,620
designated drone sites?	More willing	91%	9%	433,891
If KDWPT had drone sites,	Unlikely	93%	7%	545,758
likelihood of you flying?	Neutral	94%	6%	575,456
	Likely	92%	8%	787,179

			Disc golfer	
		No	Yes	Total
What is your age?	18-24	95%	5%	288,159
	25-34	94%	6%	377,720
	35-44	90%	10%	346,673
	45-54	93%	7%	406,264
	55-64	99%	1%	331,247
	65 and older	100%	0%	376,116
What is your gender?	Male	93%	7%	1,042,779
	Female	97%	3%	1,083,400
Ethnicity/Race	African American/Black	100%	0%	92,772
	Hispanic/Latino	93%	7%	128,261
	White/Caucasian	95%	5%	1,722,895
	Other	94%	6%	182,251
Metro or non-metro county	Urban	95%	5%	1,337,834
	Rural	95%	5%	788,345
Visited KDWPT lands?	Yes	94%	6%	1,175,008
	No	97%	3%	834,791
Annual pass KS St Pks?	Yes	89%	11%	313,694
	No	96%	4%	1,762,995
Do you own a drone?	Yes	86%	14%	300,019
	No	97%	3%	1,826,160
Drone use over average	Every other month or less	88%	12%	198,659
year? (owners only)	Every month or more	84%	16%	101,360
Drone regs & rules	Great deal	91%	9%	88,443
knowledge?	Some	94%	6%	1,275,395
	Nothing	97%	3%	762,342
Acceptable to see but not	Unacceptable	99%	1%	306,708
hear drones on KDWPT	Neutral	95%	5%	652,598
areas?	Acceptable	94%	6%	1,038,631
More or less willing to visit	Less willing	99%	1%	312,667
KDWPT areas with	No change	95%	5%	1,379,620
designated drone sites?	More willing	93%	7%	433,891
If KDWPT had drone sites,	Unlikely	98%	2%	545,758
likelihood of you flying?	Neutral	95%	5%	575,456
	Likely	93%	7%	787,179

Drones to manage wildlife

				anage whalle	
		Oppose	Support	Neutral	Total
What is your age?	18-24	14%	52%	34%	288,159
	25-34	8%	62%	30%	377,720
	35-44	8%	63%	29%	346,673
	45-54	7%	65%	28%	406,264
	55-64	7%	70%	23%	331,247
	65 and older	4%	69%	27%	376,116
What is your gender?	Male	9%	67%	24%	1,042,779
	Female	7%	61%	32%	1,083,400
Ethnicity/Race	African American/Black	19%	57%	24%	92,772
	Hispanic/Latino	8%	60%	32%	128,261
	White/Caucasian	6%	67%	27%	1,722,895
	Other	19%	40%	41%	182,251
Metro or non-metro county	Urban	9%	63%	28%	1,337,834
	Rural	6%	66%	29%	788,345
Visited KDWPT lands?	Yes	8%	70%	23%	1,175,008
	No	7%	59%	34%	834,791
Annual pass KS St Pks?	Yes	14%	65%	22%	313,694
	No	6%	64%	29%	1,762,995
Do you own a drone?	Yes	14%	68%	18%	300,019
	No	7%	63%	30%	1,826,160
Drone use over average	Every other month or less	13%	68%	19%	198,659
year? (owners only)	Every month or more	15%	69%	16%	101,360
Drone regs & rules	Great deal	37%	52%	11%	88,443
knowledge?	Some	7%	69%	24%	1,275,395
	Nothing	6%	57%	37%	762,342
Acceptable to see but not	Unacceptable	23%	48%	29%	306,708
hear drones on KDWPT	Neutral	4%	52%	44%	652,598
areas?	Acceptable	5%	79%	16%	1,038,631
More or less willing to visit	Less willing	20%	52%	27%	312,667
KDWPT areas with	No change	4%	65%	31%	1,379,620
designated drone sites?	More willing	12%	69%	19%	433,891
If KDWPT had drone sites,	Unlikely	11%	62%	28%	545,758
likelihood of you flying?	Neutral	5%	55%	40%	575,456
	Likely	8%	75%	18%	787,179

## Drones for search and rescue

		Oppose	Support	Neutral	Total
What is your age?	18-24	6%	78%	16%	288,159
	25-34	6%	78%	16%	377,720
	35-44	2%	86%	12%	346,673
	45-54	3%	84%	12%	406,264
	55-64	1%	97%	1%	331,247
	65 and older	1%	93%	6%	376,116
What is your gender?	Male	4%	85%	10%	1,042,779
	Female	2%	87%	11%	1,083,400
Ethnicity/Race	African American/Black	11%	73%	17%	92,772
	Hispanic/Latino	2%	84%	14%	128,261
	White/Caucasian	2%	88%	9%	1,722,895
	Other	8%	74%	18%	182,251
Metro or non-metro county	Urban	4%	85%	12%	1,337,834
	Rural	3%	88%	9%	788,345
Visited KDWPT lands?	Yes	3%	90%	7%	1,175,008
	No	3%	81%	16%	834,791
Annual pass KS St Pks?	Yes	6%	83%	12%	313,694
	No	3%	87%	10%	1,762,995
Do you own a drone?	Yes	6%	79%	14%	300,019
	No	3%	87%	10%	1,826,160
Drone use over average	Every other month or less	6%	78%	16%	198,659
year? (owners only)	Every month or more	6%	83%	12%	101,360
Drone regs & rules	Great deal	15%	72%	13%	88,443
knowledge?	Some	3%	89%	8%	1,275,395
	Nothing	3%	83%	14%	762,342
Acceptable to see but not	Unacceptable	9%	82%	9%	306,708
hear drones on KDWPT	Neutral	2%	83%	15%	652,598
areas?	Acceptable	3%	92%	6%	1,038,631
More or less willing to visit	Less willing	8%	81%	11%	312,667
KDWPT areas with	No change	1%	87%	11%	1,379,620
designated drone sites?	More willing	6%	86%	8%	433,891
If KDWPT had drone sites,	Unlikely	4%	90%	5%	545,758
likelihood of you flying?	Neutral	2%	76%	22%	575,456
	Likely	4%	91%	5%	787,179

Drones to combat fires

		Oppose	Support	Neutral	Total
What is your age?	18-24	13%	61%	26%	288,159
	25-34	7%	72%	21%	377,720
	35-44	5%	81%	14%	346,673
	45-54	5%	79%	16%	406,264
	55-64	2%	91%	7%	331,247
	65 and older	1%	93%	6%	376,116
What is your gender?	Male	6%	80%	14%	1,042,779
	Female	4%	80%	16%	1,083,400
Ethnicity/Race	African American/Black	23%	56%	21%	92,772
	Hispanic/Latino	9%	77%	14%	128,261
	White/Caucasian	3%	84%	13%	1,722,895
	Other	12%	58%	30%	182,251
Metro or non-metro county	Urban	5%	80%	15%	1,337,834
	Rural	6%	80%	15%	788,345
Visited KDWPT lands?	Yes	6%	83%	11%	1,175,008
	No	5%	76%	19%	834,791
Annual pass KS St Pks?	Yes	8%	74%	19%	313,694
	No	4%	82%	14%	1,762,995
Do you own a drone?	Yes	10%	73%	17%	300,019
	No	4%	81%	15%	1,826,160
Drone use over average	Every other month or less	10%	71%	19%	198,659
year? (owners only)	Every month or more	11%	77%	12%	101,360
Drone regs & rules	Great deal	18%	68%	14%	88,443
knowledge?	Some	4%	82%	14%	1,275,395
	Nothing	5%	78%	17%	762,342
Acceptable to see but not	Unacceptable	12%	68%	19%	306,708
hear drones on KDWPT	Neutral	4%	76%	20%	652,598
areas?	Acceptable	4%	89%	7%	1,038,631
More or less willing to visit	Less willing	11%	74%	15%	312,667
KDWPT areas with	No change	3%	82%	15%	1,379,620
designated drone sites?	More willing	8%	79%	13%	433,891
If KDWPT had drone sites,	Unlikely	5%	82%	13%	545,758
likelihood of you flying?	Neutral	5%	70%	26%	575,456
	Likely	6%	85%	9%	787,179

## Drones to inspect infrastructure

		Oppose	Support	Neutral	Total
What is your age?	18-24	13%	61%	26%	288,159
	25-34	9%	69%	23%	377,720
	35-44	7%	71%	22%	346,673
	45-54	5%	75%	20%	406,264
	55-64	4%	82%	14%	331,247
	65 and older	1%	84%	15%	376,116
What is your gender?	Male	7%	77%	16%	1,042,779
	Female	5%	71%	23%	1,083,400
Ethnicity/Race	African American/Black	16%	68%	16%	92,772
	Hispanic/Latino	6%	67%	27%	128,261
	White/Caucasian	5%	77%	18%	1,722,895
	Other	12%	54%	34%	182,251
Metro or non-metro county	Urban	6%	74%	20%	1,337,834
	Rural	6%	75%	18%	788,345
Visited KDWPT lands?	Yes	8%	77%	15%	1,175,008
	No	4%	71%	24%	834,791
Annual pass KS St Pks?	Yes	9%	76%	16%	313,694
	No	5%	74%	20%	1,762,995
Do you own a drone?	Yes	10%	74%	16%	300,019
	No	6%	74%	20%	1,826,160
Drone use over average	Every other month or less	10%	77%	13%	198,659
year? (owners only)	Every month or more	10%	68%	22%	101,360
Drone regs & rules	Great deal	17%	59%	23%	88,443
knowledge?	Some	6%	77%	16%	1,275,395
	Nothing	5%	71%	25%	762,342
Acceptable to see but not	Unacceptable	14%	64%	21%	306,708
hear drones on KDWPT	Neutral	4%	63%	32%	652,598
areas?	Acceptable	5%	86%	9%	1,038,631
More or less willing to visit	Less willing	12%	67%	22%	312,667
KDWPT areas with	No change	4%	75%	20%	1,379,620
designated drone sites?	More willing	9%	76%	16%	433,891
If KDWPT had drone sites,	Unlikely	9%	71%	20%	545,758
likelihood of you flying?	Neutral	4%	66%	29%	575,456
	Likely	7%	81%	12%	787,179

#### Drones for scientific research

		Oppose	Support	Neutral	Total
What is your age?	18-24	14%	52%	34%	288,159
	25-34	9%	57%	34%	377,720
	35-44	9%	59%	32%	346,673
	45-54	5%	65%	29%	406,264
	55-64	6%	68%	26%	331,247
	65 and older	2%	73%	25%	376,116
What is your gender?	Male	8%	67%	25%	1,042,779
	Female	7%	59%	35%	1,083,400
Ethnicity/Race	African American/Black	15%	56%	29%	92,772
	Hispanic/Latino	6%	62%	32%	128,261
	White/Caucasian	6%	65%	29%	1,722,895
	Other	16%	46%	39%	182,251
Metro or non-metro county	Urban	7%	64%	29%	1,337,834
	Rural	8%	61%	31%	788,345
Visited KDWPT lands?	Yes	8%	65%	27%	1,175,008
	No	6%	61%	33%	834,791
Annual pass KS St Pks?	Yes	8%	64%	27%	313,694
	No	7%	63%	30%	1,762,995
Do you own a drone?	Yes	13%	64%	24%	300,019
	No	6%	63%	31%	1,826,160
Drone use over average	Every other month or less	12%	63%	25%	198,659
year? (owners only)	Every month or more	13%	66%	21%	101,360
Drone regs & rules	Great deal	20%	58%	22%	88,443
knowledge?	Some	6%	68%	26%	1,275,395
	Nothing	7%	55%	38%	762,342
Acceptable to see but not	Unacceptable	21%	44%	35%	306,708
hear drones on KDWPT	Neutral	6%	54%	40%	652,598
areas?	Acceptable	4%	77%	19%	1,038,631
More or less willing to visit	Less willing	16%	46%	39%	312,667
KDWPT areas with	No change	5%	64%	30%	1,379,620
designated drone sites?	More willing	8%	69%	23%	433,891
If KDWPT had drone sites,	Unlikely	11%	56%	33%	545,758
likelihood of you flying?	Neutral	6%	53%	41%	575,456
	Likely	6%	74%	20%	787,179

## Drones for photography (recreational)

		Oppose	Support	Neutral	Total
What is your age?	18-24	12%	65%	24%	288,159
	25-34	13%	57%	31%	377,720
	35-44	16%	47%	37%	346,673
	45-54	12%	53%	36%	406,264
	55-64	15%	46%	40%	331,247
	65 and older	17%	47%	35%	376,116
What is your gender?	Male	11%	53%	35%	1,042,779
	Female	17%	51%	32%	1,083,400
Ethnicity/Race	African American/Black	17%	51%	31%	92,772
	Hispanic/Latino	13%	64%	23%	128,261
	White/Caucasian	13%	53%	35%	1,722,895
	Other	25%	40%	35%	182,251
Metro or non-metro county	Urban	15%	53%	32%	1,337,834
,	Rural	13%	50%	37%	788,345
Visited KDWPT lands?	Yes	14%	56%	30%	1,175,008
	No	13%	48%	39%	834,791
Annual pass KS St Pks?	Yes	10%	54%	36%	313,694
	No	14%	52%	34%	1,762,995
Do you own a drone?	Yes	13%	63%	24%	300,019
	No	14%	50%	35%	1,826,160
Drone use over average	Every other month or less	11%	70%	18%	198,659
year? (owners only)	Every month or more	16%	48%	36%	101,360
Drone regs & rules	Great deal	25%	50%	25%	88,443
knowledge?	Some	13%	56%	32%	1,275,395
	Nothing	15%	47%	38%	762,342
Acceptable to see but not	Unacceptable	37%	34%	29%	306,708
hear drones on KDWPT	Neutral	14%	45%	42%	652,598
areas?	Acceptable	8%	65%	27%	1,038,631
More or less willing to visit	Less willing	42%	35%	23%	312,667
KDWPT areas with	No change	8%	52%	39%	1,379,620
designated drone sites?	More willing	13%	63%	24%	433,891
If KDWPT had drone sites,	Unlikely	30%	40%	31%	545,758
likelihood of you flying?	Neutral	8%	46%	46%	575,456
	Likely	8%	66%	26%	787,179

#### Drones for video (recreational)

		Oppose	Support	Neutral	Total
What is your age?	18-24	11%	60%	29%	288,159
	25-34	13%	48%	39%	377,720
	35-44	21%	38%	41%	346,673
	45-54	15%	43%	42%	406,264
	55-64	23%	39%	38%	331,247
	65 and older	19%	39%	43%	376,116
What is your gender?	Male	13%	50%	38%	1,042,779
	Female	21%	39%	40%	1,083,400
Ethnicity/Race	African American/Black	17%	54%	28%	92,772
	Hispanic/Latino	12%	56%	32%	128,261
	White/Caucasian	16%	43%	40%	1,722,895
	Other	25%	39%	35%	182,251
Metro or non-metro county	Urban	18%	45%	37%	1,337,834
	Rural	16%	42%	42%	788,345
Visited KDWPT lands?	Yes	17%	49%	34%	1,175,008
	No	15%	42%	43%	834,791
Annual pass KS St Pks?	Yes	12%	44%	44%	313,694
	No	18%	44%	38%	1,762,995
Do you own a drone?	Yes	14%	57%	29%	300,019
	No	17%	42%	41%	1,826,160
Drone use over average	Every other month or less	12%	59%	29%	198,659
year? (owners only)	Every month or more	19%	52%	29%	101,360
Drone regs & rules	Great deal	27%	50%	24%	88,443
knowledge?	Some	16%	47%	38%	1,275,395
	Nothing	18%	39%	43%	762,342
Acceptable to see but not	Unacceptable	46%	21%	34%	306,708
hear drones on KDWPT	Neutral	15%	37%	48%	652,598
areas?	Acceptable	11%	58%	31%	1,038,631
More or less willing to visit	Less willing	48%	25%	27%	312,667
KDWPT areas with	No change	11%	43%	46%	1,379,620
designated drone sites?	More willing	14%	60%	26%	433,891
If KDWPT had drone sites,	Unlikely	35%	32%	33%	545,758
likelihood of you flying?	Neutral	9%	38%	53%	575,456
	Likely	11%	60%	30%	787,179

Drones	for	fun	fl۱	/ing
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			Diones io	. ran nying	
		Oppose	Support	Neutral	Total
What is your age?	18-24	21%	52%	27%	288,159
	25-34	18%	44%	38%	377,720
	35-44	28%	32%	40%	346,673
	45-54	24%	33%	43%	406,264
	55-64	26%	35%	39%	331,247
	65 and older	21%	22%	58%	376,116
What is your gender?	Male	20%	46%	34%	1,042,779
	Female	25%	26%	49%	1,083,400
Ethnicity/Race	African American/Black	22%	46%	31%	92,772
	Hispanic/Latino	24%	41%	35%	128,261
	White/Caucasian	21%	36%	43%	1,722,895
	Other	37%	29%	34%	182,251
Metro or non-metro county	Urban	22%	35%	43%	1,337,834
	Rural	24%	37%	39%	788,345
Visited KDWPT lands?	Yes	23%	42%	34%	1,175,008
	No	21%	29%	50%	834,791
Annual pass KS St Pks?	Yes	18%	52%	30%	313,694
	No	24%	33%	43%	1,762,995
Do you own a drone?	Yes	14%	61%	25%	300,019
	No	24%	32%	44%	1,826,160
Drone use over average	Every other month or less	10%	65%	25%	198,659
year? (owners only)	Every month or more	23%	52%	25%	101,360
Drone regs & rules	Great deal	30%	53%	17%	88,443
knowledge?	Some	24%	40%	36%	1,275,395
	Nothing	21%	27%	53%	762,342
Acceptable to see but not	Unacceptable	55%	17%	29%	306,708
hear drones on KDWPT	Neutral	21%	29%	50%	652,598
areas?	Acceptable	16%	47%	37%	1,038,631
More or less willing to visit	Less willing	62%	13%	25%	312,667
KDWPT areas with	No change	15%	37%	48%	1,379,620
designated drone sites?	More willing	19%	47%	33%	433,891
If KDWPT had drone sites,	Unlikely	45%	19%	36%	545,758
likelihood of you flying?	Neutral	19%	27%	55%	575,456
	Likely	12%	55%	32%	787,179
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## Drones for surveying-mapping

		Oppose	Support	Neutral	Total
What is your age?	18-24	9%	69%	23%	288,159
	25-34	5%	72%	23%	377,720
	35-44	5%	73%	22%	346,673
	45-54	4%	75%	21%	406,264
	55-64	2%	80%	18%	331,247
	65 and older	1%	88%	11%	376,116
What is your gender?	Male	5%	79%	16%	1,042,779
	Female	3%	74%	23%	1,083,400
Ethnicity/Race	African American/Black	11%	73%	16%	92,772
	Hispanic/Latino	2%	75%	23%	128,261
	White/Caucasian	3%	79%	18%	1,722,895
	Other	10%	58%	32%	182,251
Metro or non-metro county	Urban	4%	76%	20%	1,337,834
	Rural	3%	78%	19%	788,345
Visited KDWPT lands?	Yes	4%	80%	16%	1,175,008
	No	3%	74%	23%	834,791
Annual pass KS St Pks?	Yes	6%	75%	18%	313,694
	No	3%	77%	19%	1,762,995
Do you own a drone?	Yes	9%	74%	17%	300,019
	No	3%	77%	20%	1,826,160
Drone use over average	Every other month or less	11%	75%	15%	198,659
year? (owners only)	Every month or more	7%	71%	21%	101,360
Drone regs & rules	Great deal	20%	59%	21%	88,443
knowledge?	Some	3%	82%	15%	1,275,395
	Nothing	3%	70%	27%	762,342
Acceptable to see but not	Unacceptable	15%	63%	22%	306,708
hear drones on KDWPT	Neutral	2%	68%	30%	652,598
areas?	Acceptable	2%	89%	9%	1,038,631
More or less willing to visit	Less willing	11%	63%	26%	312,667
KDWPT areas with	No change	2%	78%	20%	1,379,620
designated drone sites?	More willing	6%	82%	12%	433,891
If KDWPT had drone sites,	Unlikely	6%	75%	19%	545,758
likelihood of you flying?	Neutral	2%	66%	32%	575,456
	Likely	4%	84%	11%	787,179

Effect on your visitation if drones: wildlife/habitat?

		Less	No change	More	Total
What is your age?	18-24	10%	62%	27%	288,159
	25-34	7%	69%	24%	377,720
	35-44	7%	77%	16%	346,673
	45-54	7%	82%	11%	406,264
	55-64	5%	84%	11%	331,247
	65 and older	1%	91%	7%	376,116
What is your gender?	Male	6%	78%	16%	1,042,779
	Female	6%	79%	15%	1,083,400
Ethnicity/Race	African American/Black	16%	60%	24%	92,772
	Hispanic/Latino	4%	72%	24%	128,261
	White/Caucasian	5%	81%	14%	1,722,895
	Other	15%	66%	19%	182,251
Metro or non-metro county	Urban	6%	80%	14%	1,337,834
	Rural	7%	75%	18%	788,345
Visited KDWPT lands?	Yes	6%	75%	18%	1,175,008
	No	5%	83%	12%	834,791
Annual pass KS St Pks?	Yes	12%	63%	25%	313,694
	No	5%	81%	14%	1,762,995
Do you own a drone?	Yes	10%	60%	30%	300,019
	No	6%	81%	13%	1,826,160
Drone use over average	Every other month or less	12%	60%	27%	198,659
year? (owners only)	Every month or more	6%	61%	34%	101,360
Drone regs & rules	Great deal	23%	45%	33%	88,443
knowledge?	Some	5%	79%	16%	1,275,395
	Nothing	6%	81%	12%	762,342
Acceptable to see but not	Unacceptable	22%	63%	16%	306,708
hear drones on KDWPT	Neutral	4%	87%	9%	652,598
areas?	Acceptable	3%	77%	20%	1,038,631
More or less willing to visit	Less willing	17%	69%	14%	312,667
KDWPT areas with	No change	3%	85%	12%	1,379,620
designated drone sites?	More willing	8%	62%	29%	433,891
If KDWPT had drone sites,	Unlikely	10%	82%	9%	545,758
likelihood of you flying?	Neutral	4%	85%	10%	575,456
	Likely	5%	70%	25%	787,179

Effect on your visitation if drones: search/rescue?

		Less	No change	More	Total
What is your age?	18-24	7%	54%	39%	288,159
	25-34	5%	62%	32%	377,720
	35-44	3%	74%	23%	346,673
	45-54	4%	65%	31%	406,264
	55-64	1%	74%	25%	331,247
	65 and older	0%	82%	18%	376,116
What is your gender?	Male	4%	67%	29%	1,042,779
	Female	3%	70%	27%	1,083,400
Ethnicity/Race	African American/Black	8%	57%	34%	92,772
	Hispanic/Latino	4%	64%	32%	128,261
	White/Caucasian	3%	71%	26%	1,722,895
	Other	7%	58%	35%	182,251
Metro or non-metro county	Urban	3%	71%	26%	1,337,834
	Rural	4%	66%	31%	788,345
Visited KDWPT lands?	Yes	2%	66%	32%	1,175,008
	No	5%	74%	22%	834,791
Annual pass KS St Pks?	Yes	3%	61%	36%	313,694
	No	3%	71%	26%	1,762,995
Do you own a drone?	Yes	6%	60%	33%	300,019
	No	3%	70%	27%	1,826,160
Drone use over average	Every other month or less	8%	59%	33%	198,659
year? (owners only)	Every month or more	3%	63%	35%	101,360
Drone regs & rules	Great deal	10%	42%	48%	88,443
knowledge?	Some	2%	68%	30%	1,275,395
	Nothing	4%	74%	22%	762,342
Acceptable to see but not	Unacceptable	12%	62%	26%	306,708
hear drones on KDWPT	Neutral	2%	78%	20%	652,598
areas?	Acceptable	1%	64%	35%	1,038,631
More or less willing to visit	Less willing	10%	62%	27%	312,667
KDWPT areas with	No change	2%	77%	22%	1,379,620
designated drone sites?	More willing	4%	48%	48%	433,891
If KDWPT had drone sites,	Unlikely	5%	73%	22%	545,758
likelihood of you flying?	Neutral	3%	79%	18%	575,456
	Likely	3%	58%	40%	787,179

Effect on your visitation if drones: combat fires?

		Less	No change	More	Total
What is your age?	18-24	10%	61%	29%	288,159
	25-34	7%	67%	27%	377,720
	35-44	2%	76%	22%	346,673
	45-54	4%	68%	27%	406,264
	55-64	3%	76%	22%	331,247
	65 and older	0%	82%	18%	376,116
What is your gender?	Male	4%	69%	27%	1,042,779
	Female	5%	74%	21%	1,083,400
Ethnicity/Race	African American/Black	13%	53%	34%	92,772
	Hispanic/Latino	4%	63%	33%	128,261
	White/Caucasian	3%	74%	23%	1,722,895
	Other	9%	66%	25%	182,251
Metro or non-metro county	Urban	3%	72%	24%	1,337,834
	Rural	5%	71%	24%	788,345
Visited KDWPT lands?	Yes	4%	68%	28%	1,175,008
	No	4%	78%	17%	834,791
Annual pass KS St Pks?	Yes	8%	58%	34%	313,694
	No	3%	74%	22%	1,762,995
Do you own a drone?	Yes	7%	58%	35%	300,019
	No	4%	74%	22%	1,826,160
Drone use over average	Every other month or less	9%	56%	35%	198,659
year? (owners only)	Every month or more	4%	61%	35%	101,360
Drone regs & rules	Great deal	16%	37%	47%	88,443
knowledge?	Some	3%	72%	26%	1,275,395
	Nothing	5%	76%	19%	762,342
Acceptable to see but not hear drones on KDWPT areas?	Unacceptable	10%	70%	21%	306,708
	Neutral	3%	79%	18%	652,598
	Acceptable	3%	67%	30%	1,038,631
More or less willing to visit KDWPT areas with designated drone sites?	Less willing	8%	67%	24%	312,667
	No change	3%	78%	19%	1,379,620
	More willing	5%	56%	40%	433,891
If KDWPT had drone sites, likelihood of you flying?	Unlikely	4%	81%	15%	545,758
	Neutral	2%	82%	16%	575,456
	Likely	5%	57%	37%	787,179

Effect on your visitation if drones: inspect infrastructure?

		Less	No change	More	Total
What is your age?	18-24	7%	61%	32%	288,159
	25-34	7%	72%	21%	377,720
	35-44	5%	80%	15%	346,673
	45-54	6%	73%	21%	406,264
	55-64	5%	82%	12%	331,247
	65 and older	0%	90%	10%	376,116
What is your gender?	Male	5%	74%	21%	1,042,779
	Female	5%	80%	15%	1,083,400
Ethnicity/Race	African American/Black	12%	57%	31%	92,772
	Hispanic/Latino	2%	71%	27%	128,261
	White/Caucasian	4%	79%	17%	1,722,895
	Other	7%	76%	17%	182,251
Metro or non-metro county	Urban	4%	79%	16%	1,337,834
	Rural	6%	73%	21%	788,345
Visited KDWPT lands?	Yes	5%	73%	21%	1,175,008
	No	4%	84%	13%	834,791
Annual pass KS St Pks?	Yes	10%	64%	26%	313,694
	No	3%	80%	17%	1,762,995
Do you own a drone?	Yes	8%	61%	31%	300,019
	No	4%	80%	16%	1,826,160
Drone use over average year? (owners only)	Every other month or less	9%	60%	31%	198,659
	Every month or more	6%	64%	31%	101,360
Drone regs & rules knowledge?	Great deal	17%	50%	33%	88,443
	Some	4%	76%	19%	1,275,395
	Nothing	4%	81%	14%	762,342
Acceptable to see but not	Unacceptable	12%	71%	16%	306,708
hear drones on KDWPT areas?	Neutral	4%	82%	14%	652,598
	Acceptable	3%	74%	23%	1,038,631
More or less willing to visit KDWPT areas with designated drone sites?	Less willing	13%	72%	16%	312,667
	No change	3%	83%	13%	1,379,620
	More willing	5%	60%	35%	433,891
If KDWPT had drone sites, likelihood of you flying?	Unlikely	8%	81%	11%	545,758
	Neutral	3%	83%	14%	575,456
	Likely	5%	67%	27%	787,179

Effect on your visitation if drones: scientific research?

		Less	No change	More	Total
What is your age?	18-24	11%	63%	25%	288,159
	25-34	2%	78%	20%	377,720
	35-44	4%	82%	14%	346,673
	45-54	4%	74%	23%	406,264
	55-64	6%	80%	14%	331,247
	65 and older	1%	93%	6%	376,116
What is your gender?	Male	3%	78%	19%	1,042,779
	Female	6%	80%	15%	1,083,400
Ethnicity/Race	African American/Black	9%	66%	25%	92,772
	Hispanic/Latino	2%	66%	32%	128,261
	White/Caucasian	4%	81%	15%	1,722,895
	Other	9%	70%	21%	182,251
Metro or non-metro county	Urban	4%	79%	16%	1,337,834
	Rural	5%	78%	17%	788,345
Visited KDWPT lands?	Yes	5%	76%	18%	1,175,008
	No	3%	83%	14%	834,791
Annual pass KS St Pks?	Yes	7%	66%	27%	313,694
	No	3%	82%	15%	1,762,995
Do you own a drone?	Yes	7%	63%	30%	300,019
	No	4%	81%	15%	1,826,160
Drone use over average	Every other month or less	8%	63%	29%	198,659
year? (owners only)	Every month or more	5%	64%	31%	101,360
Drone regs & rules	Great deal	6%	57%	37%	88,443
knowledge?	Some	4%	78%	18%	1,275,395
	Nothing	5%	83%	12%	762,342
Acceptable to see but not	Unacceptable	16%	71%	13%	306,708
hear drones on KDWPT	Neutral	3%	85%	12%	652,598
areas?	Acceptable	2%	77%	21%	1,038,631
More or less willing to visit	Less willing	14%	69%	17%	312,667
KDWPT areas with	No change	2%	86%	12%	1,379,620
designated drone sites?	More willing	5%	63%	31%	433,891
If KDWPT had drone sites,	Unlikely	6%	86%	8%	545,758
likelihood of you flying?	Neutral	3%	86%	11%	575,456
	Likely	4%	67%	28%	787,179

Effect on your visitation if drones: photography (recreational)?

		Less	No change	More	Total
What is your age?	18-24	11%	54%	35%	288,159
What is your gender?  Ethnicity/Race  Metro or non-metro county  Visited KDWPT lands?  Annual pass KS St Pks?  Do you own a drone?	25-34	9%	64%	27%	377,720
	35-44	18%	72%	10%	346,673
	45-54	8%	64%	27%	406,264
	55-64	16%	72%	12%	331,247
	65 and older	6%	85%	9%	376,116
What is your gender?	Male	10%	68%	22%	1,042,779
	Female	12%	70%	18%	1,083,400
Ethnicity/Race	African American/Black	19%	60%	21%	92,772
	Hispanic/Latino	9%	54%	37%	128,261
	White/Caucasian	11%	71%	18%	1,722,895
	Other	16%	64%	20%	182,251
Metro or non-metro county	Urban	12%	71%	17%	1,337,834
	Rural	10%	66%	25%	788,345
Visited KDWPT lands?	Yes	14%	65%	21%	1,175,008
	No	8%	76%	17%	834,791
Annual pass KS St Pks?	Yes	14%	60%	27%	313,694
	No	11%	71%	18%	1,762,995
Do you own a drone?	Yes	14%	52%	35%	300,019
	No	11%	72%	17%	1,826,160
Drone use over average	Every other month or less	17%	49%	34%	198,659
year? (owners only)	Every month or more	8%	56%	36%	101,360
Drone regs & rules	Great deal	23%	36%	41%	88,443
knowledge?	Some	11%	67%	22%	1,275,395
	Nothing	10%	76%	14%	762,342
Acceptable to see but not	Unacceptable	32%	54%	14%	306,708
hear drones on KDWPT	Neutral	11%	76%	13%	652,598
areas?	Acceptable	6%	68%	26%	1,038,631
More or less willing to visit	Less willing	33%	53%	14%	312,667
KDWPT areas with	No change	6%	80%	15%	1,379,620
designated drone sites?	More willing	13%	47%	40%	433,891
If KDWPT had drone sites,	Unlikely	21%	72%	8%	545,758
likelihood of you flying?	Neutral	7%	79%	14%	575,456
	Likely	8%	60%	32%	787,179

Effect on your visitation if drones: video (recreational)?

		Less	No change	More	Total
What is your age?	18-24	8%	55%	37%	288,159
	25-34	11%	70%	19%	377,720
	35-44	20%	70%	11%	346,673
	45-54	9%	71%	20%	406,264
	55-64	17%	73%	10%	331,247
	65 and older	11%	86%	2%	376,116
What is your gender?	Male	11%	71%	18%	1,042,779
	Female	14%	72%	14%	1,083,400
Ethnicity/Race	African American/Black	14%	61%	24%	92,772
	Hispanic/Latino	12%	47%	42%	128,261
	White/Caucasian	12%	75%	14%	1,722,895
	Other	24%	61%	15%	182,251
Metro or non-metro county	Urban	13%	74%	13%	1,337,834
	Rural	12%	67%	20%	788,345
Visited KDWPT lands?	Yes	15%	66%	19%	1,175,008
	No	8%	79%	13%	834,791
Annual pass KS St Pks?	Yes	17%	55%	28%	313,694
	No	11%	75%	13%	1,762,995
Do you own a drone?	Yes	13%	53%	33%	300,019
	No	13%	74%	13%	1,826,160
Drone use over average	Every other month or less	11%	54%	34%	198,659
year? (owners only)	Every month or more	18%	52%	31%	101,360
Drone regs & rules	Great deal	22%	40%	38%	88,443
knowledge?	Some	13%	70%	18%	1,275,395
	Nothing	11%	78%	11%	762,342
Acceptable to see but not	Unacceptable	35%	54%	11%	306,708
hear drones on KDWPT	Neutral	11%	76%	13%	652,598
areas?	Acceptable	8%	72%	20%	1,038,631
More or less willing to visit	Less willing	35%	54%	10%	312,667
KDWPT areas with	No change	7%	82%	11%	1,379,620
designated drone sites?	More willing	14%	49%	36%	433,891
If KDWPT had drone sites,	Unlikely	23%	72%	5%	545,758
likelihood of you flying?	Neutral	6%	81%	14%	575,456
	Likely	10%	62%	27%	787,179

Effect on your visitation if drones: fun flying?

		Less	No change	More	Total
What is your age?	18-24	19%	58%	23%	288,159
	25-34	12%	69%	20%	377,720
	35-44	22%	67%	12%	346,673
	45-54	20%	62%	17%	406,264
	55-64	22%	70%	7%	331,247
	65 and older	21%	77%	2%	376,116
What is your gender?	Male	18%	65%	18%	1,042,779
	Female	20%	70%	9%	1,083,400
Ethnicity/Race	African American/Black	17%	55%	27%	92,772
	Hispanic/Latino	18%	60%	22%	128,261
	White/Caucasian	18%	70%	12%	1,722,895
Metro or non-metro county	Other	30%	57%	14%	182,251
Metro or non-metro county	Urban	19%	70%	12%	1,337,834
	Rural	20%	64%	16%	788,345
Visited KDWPT lands?	Yes	23%	62%	16%	1,175,008
	No	12%	78%	10%	834,791
Annual pass KS St Pks?	Yes	19%	54%	27%	313,694
	No	19%	70%	11%	1,762,995
Do you own a drone?	Yes	15%	52%	33%	300,019
	No	20%	70%	10%	1,826,160
Drone use over average	Every other month or less	18%	49%	33%	198,659
year? (owners only)	Every month or more	10%	58%	32%	101,360
Drone regs & rules	Great deal	25%	43%	32%	88,443
knowledge?	Some	21%	64%	16%	1,275,395
	Nothing	16%	76%	8%	762,342
Acceptable to see but not	Unacceptable	49%	42%	9%	306,708
hear drones on KDWPT	Neutral	16%	73%	11%	652,598
areas?	Acceptable	14%	69%	17%	1,038,631
More or less willing to visit	Less willing	52%	42%	5%	312,667
KDWPT areas with	No change	11%	80%	9%	1,379,620
designated drone sites?	More willing	23%	45%	32%	433,891
If KDWPT had drone sites,	Unlikely	35%	62%	3%	545,758
likelihood of you flying?	Neutral	13%	77%	10%	575,456
	Likely	14%	61%	25%	787,179

Effect on your visitation if drones: surveying/mapping?

		Less	No change	More	Total
What is your age?	18-24	5%	64%	32%	288,159
	25-34	3%	75%	22%	377,720
	35-44	4%	80%	16%	346,673
	45-54	5%	78%	17%	406,264
	55-64	5%	82%	13%	331,247
	65 and older	1%	91%	7%	376,116
What is your gender?	Male	4%	76%	20%	1,042,779
	Female	3%	82%	15%	1,083,400
Ethnicity/Race	African American/Black	17%	61%	22%	92,772
	Hispanic/Latino	0%	63%	37%	128,261
	White/Caucasian	2%	82%	16%	1,722,895
	Other	11%	71%	19%	182,251
Metro or non-metro county	Urban	3%	80%	17%	1,337,834
	Rural	4%	77%	19%	788,345
Visited KDWPT lands?	Yes	4%	76%	20%	1,175,008
	No	3%	83%	14%	834,791
Annual pass KS St Pks?	Yes	4%	68%	28%	313,694
	No	3%	81%	15%	1,762,995
Do you own a drone?	Yes	5%	63%	32%	300,019
	No	3%	82%	15%	1,826,160
Drone use over average	Every other month or less	5%	64%	31%	198,659
year? (owners only)	Every month or more	6%	60%	34%	101,360
Drone regs & rules	Great deal	14%	48%	38%	88,443
knowledge?	Some	3%	78%	19%	1,275,395
	Nothing	4%	84%	12%	762,342
Acceptable to see but not	Unacceptable	15%	70%	14%	306,708
hear drones on KDWPT	Neutral	2%	84%	14%	652,598
areas?	Acceptable	1%	76%	22%	1,038,631
More or less willing to visit	Less willing	13%	71%	16%	312,667
KDWPT areas with	No change	2%	86%	12%	1,379,620
designated drone sites?	More willing	3%	60%	36%	433,891
If KDWPT had drone sites,	Unlikely	6%	86%	8%	545,758
likelihood of you flying?	Neutral	3%	82%	15%	575,456
	Likely	3%	70%	27%	787,179

#### Bother from hearing drones?

		Not at all	Some	A lot	Total
What is your age?	18-24	64%	25%	11%	272,374
	25-34	60%	24%	16%	352,244
	35-44	52%	27%	21%	323,666
	45-54	62%	24%	13%	390,004
	55-64	69%	16%	16%	317,842
	65 and older	64%	23%	12%	334,045
What is your gender?	Male	64%	23%	13%	1,010,595
	Female	60%	24%	17%	979,580
Ethnicity/Race	African American/Black	64%	20%	16%	78,504
	Hispanic/Latino	56%	33%	11%	124,104
	White/Caucasian	63%	22%	16%	1,622,032
	Other	57%	31%	11%	165,536
Metro or non-metro county	Urban	61%	24%	15%	1,249,566
	Rural	64%	22%	14%	740,609
Visited KDWPT lands?	Yes	60%	22%	18%	1,140,902
	No	66%	23%	11%	743,765
Annual pass KS St Pks?	Yes	61%	18%	21%	305,006
	No	62%	24%	14%	1,641,951
Do you own a drone?	Yes	68%	18%	14%	291,140
	No	61%	24%	15%	1,699,035
Drone use over average	Every other month or less	68%	18%	15%	191,406
year? (owners only)	Every month or more	69%	18%	12%	99,734
Drone regs & rules	Great deal	52%	26%	22%	88,443
knowledge?	Some	63%	23%	14%	1,228,395
	Nothing	62%	23%	16%	673,338
Acceptable to see but not	Unacceptable	31%	29%	40%	287,028
hear drones on KDWPT	Neutral	58%	28%	13%	613,064
areas?	Acceptable	73%	18%	9%	1,001,003
More or less willing to visit	Less willing	31%	25%	45%	300,534
KDWPT areas with	No change	69%	22%	9%	1,269,335
designated drone sites?	More willing	63%	25%	13%	420,307
If KDWPT had drone sites,	Unlikely	47%	23%	30%	514,410
likelihood of you flying?	Neutral	67%	25%	8%	529,369
	Likely	69%	23%	9%	768,564

#### Bother from seeing drones?

		Not at all	Some	A lot	Total
What is your age?	18-24	75%	17%	8%	269,766
	25-34	68%	21%	11%	352,244
	35-44	62%	23%	15%	335,169
	45-54	72%	17%	11%	381,254
	55-64	73%	10%	17%	320,076
	65 and older	75%	15%	10%	362,603
What is your gender?	Male	72%	16%	12%	1,002,360
	Female	70%	18%	12%	1,018,754
Ethnicity/Race	African American/Black	84%	8%	8%	84,661
	Hispanic/Latino	68%	18%	14%	124,104
	White/Caucasian	71%	17%	11%	1,655,007
	Other	61%	19%	20%	157,342
Metro or non-metro county	Urban	70%	18%	12%	1,265,813
	Rural	72%	16%	13%	755,301
Visited KDWPT lands?	Yes	68%	19%	13%	1,151,101
	No	74%	16%	10%	765,715
Annual pass KS St Pks?	Yes	67%	15%	18%	307,158
	No	71%	18%	11%	1,672,852
Do you own a drone?	Yes	74%	17%	9%	287,260
	No	70%	17%	13%	1,733,854
Drone use over average	Every other month or less	68%	22%	10%	191,900
year? (owners only)	Every month or more	87%	6%	7%	95,360
Drone regs & rules	Great deal	55%	23%	22%	85,835
knowledge?	Some	72%	18%	11%	1,239,494
	Nothing	71%	16%	13%	695,785
Acceptable to see but not	Unacceptable	32%	18%	51%	294,911
hear drones on KDWPT	Neutral	63%	28%	10%	625,166
areas?	Acceptable	87%	10%	3%	1,009,806
More or less willing to visit	Less willing	35%	19%	46%	305,294
KDWPT areas with	No change	78%	17%	4%	1,297,113
designated drone sites?	More willing	73%	15%	11%	418,708
If KDWPT had drone sites,	Unlikely	52%	22%	25%	531,483
likelihood of you flying?	Neutral	74%	18%	8%	536,507
	Likely	81%	13%	6%	768,949

## Drone bother from feeling less privacy?

		Not at all	Some	A lot	Total
What is your age?	18-24	31%	39%	30%	279,210
	25-34	35%	28%	37%	347,181
	35-44	36%	27%	37%	330,650
	45-54	40%	22%	38%	400,321
	55-64	39%	29%	32%	322,311
	65 and older	41%	27%	32%	357,461
What is your gender?	Male	37%	31%	31%	1,016,891
	Female	37%	25%	38%	1,020,242
Ethnicity/Race	African American/Black	45%	16%	39%	79,750
	Hispanic/Latino	25%	41%	34%	124,104
	White/Caucasian	38%	28%	34%	1,667,863
	Other	32%	30%	38%	165,415
Metro or non-metro county	Urban	37%	27%	36%	1,269,572
	Rural	38%	30%	32%	767,561
Visited KDWPT lands?	Yes	35%	28%	37%	1,156,283
	No	43%	28%	29%	778,710
Annual pass KS St Pks?	Yes	39%	24%	37%	305,508
	No	37%	29%	34%	1,686,292
Do you own a drone?	Yes	34%	29%	37%	290,626
	No	38%	28%	34%	1,746,507
Drone use over average	Every other month or less	32%	31%	37%	190,891
year? (owners only)	Every month or more	37%	25%	38%	99,734
Drone regs & rules	Great deal	22%	38%	40%	85,911
knowledge?	Some	39%	28%	33%	1,250,284
	Nothing	37%	27%	36%	700,938
Acceptable to see but not	Unacceptable	8%	20%	72%	299,753
hear drones on KDWPT	Neutral	29%	33%	38%	626,480
areas?	Acceptable	51%	26%	23%	1,018,870
More or less willing to visit	Less willing	10%	18%	72%	301,873
KDWPT areas with	No change	43%	32%	25%	1,308,859
designated drone sites?	More willing	40%	22%	37%	426,401
If KDWPT had drone sites,	Unlikely	25%	25%	50%	533,154
likelihood of you flying?	Neutral	41%	32%	27%	531,357
	Likely	44%	27%	29%	778,485

#### Bother from disturbing wildlife?

		Not at all	Some	A lot	Total
What is your age?	18-24	49%	24%	27%	274,488
	25-34	43%	31%	26%	352,244
	35-44	39%	29%	32%	332,376
	45-54	43%	21%	37%	394,378
	55-64	46%	23%	31%	319,998
	65 and older	45%	26%	29%	353,084
What is your gender?	Male	47%	25%	28%	1,013,546
	Female	41%	26%	33%	1,013,023
Ethnicity/Race	African American/Black	52%	30%	19%	81,689
	Hispanic/Latino	33%	27%	39%	121,496
	White/Caucasian	45%	24%	30%	1,660,081
	Other	33%	35%	31%	163,302
Metro or non-metro county	Urban	42%	27%	31%	1,264,326
	Rural	47%	24%	29%	762,242
Visited KDWPT lands?	Yes	41%	27%	32%	1,157,933
	No	48%	23%	28%	766,276
Annual pass KS St Pks?	Yes	44%	26%	30%	309,766
	No	44%	25%	30%	1,676,017
Do you own a drone?	Yes	47%	26%	27%	286,593
	No	43%	26%	31%	1,739,975
Drone use over average	Every other month or less	52%	21%	28%	189,467
year? (owners only)	Every month or more	39%	36%	25%	97,126
Drone regs & rules	Great deal	32%	41%	27%	85,835
knowledge?	Some	44%	24%	31%	1,249,448
	Nothing	45%	26%	30%	691,285
Acceptable to see but not	Unacceptable	18%	17%	66%	292,598
hear drones on KDWPT	Neutral	40%	32%	28%	623,863
areas?	Acceptable	53%	24%	23%	1,011,919
More or less willing to visit	Less willing	17%	18%	66%	296,107
KDWPT areas with	No change	51%	27%	22%	1,306,668
designated drone sites?	More willing	42%	26%	32%	423,793
If KDWPT had drone sites,	Unlikely	28%	27%	46%	531,192
likelihood of you flying?	Neutral	50%	26%	25%	536,122
	Likely	48%	26%	26%	770,890

#### Bother from loss of wild places?

		Not at all	Some	A lot	Total
What is your age?	18-24	54%	18%	27%	265,045
	25-34	53%	21%	26%	344,649
	35-44	46%	24%	30%	329,582
	45-54	53%	20%	28%	384,061
	55-64	51%	17%	32%	310,983
	65 and older	49%	23%	28%	344,331
What is your gender?	Male	56%	18%	26%	983,060
	Female	46%	24%	30%	995,590
Ethnicity/Race	African American/Black	66%	15%	19%	74,322
	Hispanic/Latino	50%	15%	35%	112,211
	White/Caucasian	52%	21%	27%	1,633,612
	Other	37%	25%	39%	158,505
Metro or non-metro county	Urban	49%	22%	30%	1,228,379
	Rural	54%	20%	26%	750,271
Visited KDWPT lands?	Yes	48%	22%	30%	1,117,294
	No	55%	20%	26%	756,564
Annual pass KS St Pks?	Yes	48%	23%	30%	296,813
	No	52%	21%	28%	1,636,505
Do you own a drone?	Yes	59%	14%	26%	283,029
	No	49%	22%	29%	1,695,621
Drone use over average	Every other month or less	56%	15%	29%	183,295
year? (owners only)	Every month or more	66%	14%	21%	99,734
Drone regs & rules	Great deal	32%	35%	33%	83,227
knowledge?	Some	52%	20%	27%	1,215,954
	Nothing	50%	20%	30%	679,469
Acceptable to see but not	Unacceptable	19%	14%	67%	297,145
hear drones on KDWPT	Neutral	46%	27%	27%	602,822
areas?	Acceptable	63%	19%	18%	989,140
More or less willing to visit	Less willing	22%	17%	61%	303,523
KDWPT areas with	No change	58%	22%	20%	1,274,656
designated drone sites?	More willing	50%	20%	29%	400,472
If KDWPT had drone sites,	Unlikely	32%	23%	44%	526,329
likelihood of you flying?	Neutral	55%	23%	23%	521,038
	Likely	61%	18%	22%	756,783

## Bother for personal safety?

		Not at all	Some	A lot	Total
What is your age?	18-24	67%	13%	20%	271,386
	25-34	61%	24%	16%	344,649
	35-44	67%	17%	16%	326,459
	45-54	65%	20%	15%	382,658
	55-64	64%	25%	11%	315,451
	65 and older	68%	12%	20%	348,707
What is your gender?	Male	68%	20%	12%	979,939
	Female	63%	17%	21%	1,009,371
Ethnicity/Race	African American/Black	60%	26%	15%	82,493
	Hispanic/Latino	60%	25%	15%	121,496
	White/Caucasian	68%	18%	15%	1,630,811
	Other	47%	18%	36%	154,510
Metro or non-metro county	Urban	66%	18%	16%	1,235,454
	Rural	64%	19%	17%	753,856
Visited KDWPT lands?	Yes	66%	20%	15%	1,139,436
	No	65%	17%	19%	759,258
Annual pass KS St Pks?	Yes	56%	27%	17%	299,886
	No	67%	17%	16%	1,651,247
Do you own a drone?	Yes	67%	16%	17%	276,907
	No	65%	19%	16%	1,712,404
Drone use over average	Every other month or less	64%	16%	19%	182,388
year? (owners only)	Every month or more	71%	15%	14%	94,519
Drone regs & rules	Great deal	45%	27%	28%	83,227
knowledge?	Some	68%	17%	15%	1,207,187
	Nothing	63%	20%	18%	698,896
Acceptable to see but not	Unacceptable	29%	24%	47%	274,321
hear drones on KDWPT	Neutral	61%	27%	12%	614,620
areas?	Acceptable	78%	12%	10%	1,001,344
More or less willing to visit	Less willing	34%	27%	39%	295,607
KDWPT areas with	No change	72%	17%	10%	1,280,324
designated drone sites?	More willing	66%	16%	18%	413,379
If KDWPT had drone sites,	Unlikely	53%	24%	23%	532,486
likelihood of you flying?	Neutral	68%	20%	13%	516,394
	Likely	71%	14%	15%	756,293

### $\label{eq:power_power} \textbf{Feelings} \ \textbf{if trained} \ \textbf{KDWPT} \ \textbf{Staff} \ \textbf{fly} \ \textbf{drones}?$

		Negative	Same	Positive	Total
What is your age?	18-24	13%	32%	55%	288,159
	25-34	7%	34%	59%	377,720
	35-44	6%	38%	57%	346,673
	45-54	3%	36%	61%	406,264
	55-64	7%	30%	63%	331,247
	65 and older	1%	19%	79%	376,116
What is your gender?	Male	7%	31%	62%	1,042,779
	Female	4%	32%	63%	1,083,400
Ethnicity/Race	African American/Black	14%	38%	48%	92,772
	Hispanic/Latino	10%	42%	48%	128,261
	White/Caucasian	4%	29%	67%	1,722,895
	Other	13%	47%	40%	182,251
Metro or non-metro county	Urban	6%	34%	60%	1,337,834
	Rural	5%	28%	67%	788,345
Visited KDWPT lands?	Yes	5%	27%	68%	1,175,008
	No	5%	38%	57%	834,791
Annual pass KS St Pks?	Yes	8%	29%	63%	313,694
	No	5%	32%	63%	1,762,995
Do you own a drone?	Yes	11%	28%	61%	300,019
	No	5%	32%	63%	1,826,160
Drone use over average	Every other month or less	13%	32%	56%	198,659
year? (owners only)	Every month or more	9%	20%	72%	101,360
Drone regs & rules	Great deal	17%	14%	68%	88,443
knowledge?	Some	5%	29%	66%	1,275,395
	Nothing	5%	39%	56%	762,342
Acceptable to see but not	Unacceptable	18%	37%	44%	306,708
hear drones on KDWPT	Neutral	5%	43%	52%	652,598
areas?	Acceptable	3%	21%	77%	1,038,631
More or less willing to visit	Less willing	16%	32%	52%	312,667
KDWPT areas with	No change	3%	36%	62%	1,379,620
designated drone sites?	More willing	7%	19%	74%	433,891
If KDWPT had drone sites,	Unlikely	8%	28%	64%	545,758
likelihood of you flying?	Neutral	4%	48%	48%	575,456
	Likely	5%	21%	74%	787,179

Feelings if trained Law Enforcement flies drones?

		Negative	Same	Positive	Total
What is your age?	18-24	15%	29%	56%	288,159
	25-34	16%	36%	48%	377,720
	35-44	13%	30%	57%	346,673
	45-54	14%	21%	65%	406,264
	55-64	7%	26%	67%	331,247
	65 and older	2%	17%	81%	376,116
What is your gender?	Male	14%	27%	58%	1,042,779
	Female	8%	25%	66%	1,083,400
Ethnicity/Race	African American/Black	22%	17%	61%	92,772
	Hispanic/Latino	27%	21%	51%	128,261
	White/Caucasian	9%	26%	65%	1,722,895
	Other	19%	37%	45%	182,251
Metro or non-metro county	Urban	12%	26%	62%	1,337,834
	Rural	10%	26%	64%	788,345
Visited KDWPT lands?	Yes	13%	23%	64%	1,175,008
	No	8%	31%	61%	834,791
Annual pass KS St Pks?	Yes	14%	25%	61%	313,694
	No	10%	26%	64%	1,762,995
Do you own a drone?	Yes	16%	25%	59%	300,019
	No	10%	26%	63%	1,826,160
Drone use over average	Every other month or less	16%	28%	56%	198,659
year? (owners only)	Every month or more	16%	19%	65%	101,360
Drone regs & rules	Great deal	17%	17%	66%	88,443
knowledge?	Some	12%	23%	66%	1,275,395
	Nothing	10%	33%	57%	762,342
Acceptable to see but not	Unacceptable	28%	27%	45%	306,708
hear drones on KDWPT	Neutral	13%	35%	52%	652,598
areas?	Acceptable	6%	19%	75%	1,038,631
More or less willing to visit	Less willing	24%	20%	56%	312,667
KDWPT areas with	No change	9%	30%	61%	1,379,620
designated drone sites?	More willing	10%	18%	72%	433,891
If KDWPT had drone sites,	Unlikely	12%	20%	68%	545,758
likelihood of you flying?	Neutral	10%	42%	48%	575,456
	Likely	12%	16%	71%	787,179

# Feelings if trained Contractors fly drones?

		Negative	Same	Positive	Total
What is your age?	18-24	13%	42%	45%	288,159
	25-34	12%	45%	43%	377,720
	35-44	10%	51%	40%	346,673
	45-54	9%	46%	45%	406,264
	55-64	15%	40%	45%	331,247
	65 and older	7%	28%	65%	376,116
What is your gender?	Male	10%	43%	47%	1,042,779
	Female	11%	41%	48%	1,083,400
Ethnicity/Race	African American/Black	13%	31%	56%	92,772
	Hispanic/Latino	15%	48%	37%	128,261
	White/Caucasian	10%	41%	49%	1,722,895
	Other	13%	54%	33%	182,251
Metro or non-metro county	Urban	12%	40%	48%	1,337,834
	Rural	10%	45%	46%	788,345
Visited KDWPT lands?	Yes	11%	41%	48%	1,175,008
	No	11%	43%	46%	834,791
Annual pass KS St Pks?	Yes	16%	37%	47%	313,694
	No	10%	43%	47%	1,762,995
Do you own a drone?	Yes	12%	41%	46%	300,019
	No	11%	42%	47%	1,826,160
Drone use over average	Every other month or less	15%	47%	39%	198,659
year? (owners only)	Every month or more	8%	30%	61%	101,360
Drone regs & rules	Great deal	11%	36%	53%	88,443
knowledge?	Some	10%	40%	50%	1,275,395
	Nothing	12%	46%	42%	762,342
Acceptable to see but not	Unacceptable	33%	36%	31%	306,708
hear drones on KDWPT	Neutral	10%	56%	33%	652,598
areas?	Acceptable	5%	33%	61%	1,038,631
More or less willing to visit	Less willing	30%	40%	30%	312,667
KDWPT areas with	No change	7%	46%	47%	1,379,620
designated drone sites?	More willing	8%	30%	62%	433,891
If KDWPT had drone sites,	Unlikely	18%	38%	43%	545,758
likelihood of you flying?	Neutral	6%	59%	35%	575,456
	Likely	9%	31%	60%	787,179

Feelings if trained University staff fly drones?

		Negative	Same	Positive	Total
What is your age?	18-24	13%	44%	43%	288,159
	25-34	12%	46%	42%	377,720
	35-44	10%	45%	45%	346,673
	45-54	7%	44%	50%	406,264
	55-64	12%	42%	46%	331,247
	65 and older	7%	23%	69%	376,116
What is your gender?	Male	9%	40%	51%	1,042,779
	Female	11%	41%	48%	1,083,400
Ethnicity/Race	African American/Black	19%	20%	61%	92,772
	Hispanic/Latino	5%	47%	48%	128,261
	White/Caucasian	10%	40%	50%	1,722,895
	Other	11%	50%	39%	182,251
Metro or non-metro county	Urban	10%	41%	49%	1,337,834
	Rural	11%	39%	50%	788,345
Visited KDWPT lands?	Yes	9%	40%	51%	1,175,008
	No	11%	41%	48%	834,791
Annual pass KS St Pks?	Yes	15%	35%	51%	313,694
	No	9%	42%	50%	1,762,995
Do you own a drone?	Yes	12%	37%	51%	300,019
	No	10%	41%	49%	1,826,160
Drone use over average	Every other month or less	14%	39%	47%	198,659
year? (owners only)	Every month or more	8%	32%	60%	101,360
Drone regs & rules	Great deal	14%	36%	50%	88,443
knowledge?	Some	8%	38%	53%	1,275,395
	Nothing	13%	44%	43%	762,342
Acceptable to see but not	Unacceptable	29%	38%	33%	306,708
hear drones on KDWPT	Neutral	7%	57%	36%	652,598
areas?	Acceptable	7%	29%	64%	1,038,631
More or less willing to visit	Less willing	27%	38%	35%	312,667
KDWPT areas with	No change	7%	44%	49%	1,379,620
designated drone sites?	More willing	7%	31%	62%	433,891
If KDWPT had drone sites,	Unlikely	17%	39%	44%	545,758
likelihood of you flying?	Neutral	4%	60%	36%	575,456
	Likely	10%	26%	64%	787,179

Feelings if recreationalists fly drones (no training required)?

		Negative	Same	Positive	Total
What is your age?	18-24	39%	38%	24%	288,159
	25-34	36%	43%	20%	377,720
	35-44	48%	39%	13%	346,673
	45-54	42%	42%	16%	406,264
	55-64	61%	31%	9%	331,247
	65 and older	63%	30%	7%	376,116
What is your gender?	Male	42%	41%	17%	1,042,779
	Female	54%	34%	12%	1,083,400
Ethnicity/Race	African American/Black	39%	35%	27%	92,772
	Hispanic/Latino	27%	53%	20%	128,261
	White/Caucasian	50%	36%	14%	1,722,895
	Other	50%	35%	15%	182,251
Metro or non-metro county	Urban	49%	35%	16%	1,337,834
	Rural	47%	40%	13%	788,345
Visited KDWPT lands?	Yes	49%	35%	17%	1,175,008
	No	46%	42%	11%	834,791
Annual pass KS St Pks?	Yes	38%	38%	24%	313,694
	No	50%	37%	13%	1,762,995
Do you own a drone?	Yes	32%	39%	29%	300,019
	No	51%	37%	12%	1,826,160
Drone use over average	Every other month or less	29%	41%	29%	198,659
year? (owners only)	Every month or more	37%	35%	28%	101,360
Drone regs & rules	Great deal	29%	35%	36%	88,443
knowledge?	Some	49%	34%	17%	1,275,395
	Nothing	48%	43%	8%	762,342
Acceptable to see but not	Unacceptable	64%	22%	14%	306,708
hear drones on KDWPT	Neutral	48%	44%	7%	652,598
areas?	Acceptable	44%	36%	20%	1,038,631
More or less willing to visit	Less willing	78%	12%	10%	312,667
KDWPT areas with	No change	44%	45%	11%	1,379,620
designated drone sites?	More willing	39%	31%	30%	433,891
If KDWPT had drone sites,	Unlikely	73%	19%	7%	545,758
likelihood of you flying?	Neutral	31%	58%	11%	575,456
	Likely	42%	34%	23%	787,179

Drone distance from roads?

		No	NO within 1	NO within	NO within	
		restrictions	football field	1/4 mile	½ mile	Total
What is your age?	18-24	40%	39%	10%	11%	239,323
	25-34	41%	35%	13%	10%	316,268
	35-44	35%	36%	17%	12%	272,146
	45-54	23%	37%	20%	20%	331,070
	55-64	31%	38%	14%	17%	277,314
	65 and older	25%	37%	16%	22%	293,124
What is your gender?	Male	36%	39%	14%	11%	873,192
	Female	28%	35%	16%	21%	856,051
Ethnicity/Race	African American/Black	37%	33%	15%	14%	78,504
	Hispanic/Latino	31%	30%	18%	21%	108,588
	White/Caucasian	33%	37%	14%	16%	1,394,866
	Other	24%	45%	20%	11%	147,285
Metro or non-metro county	Urban	29%	38%	16%	17%	1,079,666
	Rural	38%	35%	14%	14%	649,577
Visited KDWPT lands?	Yes	33%	36%	14%	17%	1,023,943
	No	31%	38%	15%	16%	622,758
Annual pass KS St Pks?	Yes	26%	40%	19%	15%	285,652
	No	33%	36%	14%	16%	1,407,527
Do you own a drone?	Yes	33%	38%	16%	14%	256,277
	No	32%	37%	15%	16%	1,472,967
Drone use over average	Every other month or less	29%	40%	19%	12%	162,414
year? (owners only)	Every month or more	39%	35%	10%	16%	93,863
Drone regs & rules	Great deal	46%	33%	8%	13%	82,198
knowledge?	Some	32%	37%	16%	15%	1,083,224
	Nothing	31%	38%	14%	18%	563,821
Acceptable to see but not	Unacceptable	17%	34%	12%	37%	264,907
hear drones on KDWPT	Neutral	26%	38%	20%	15%	527,247
areas?	Acceptable	39%	38%	13%	10%	895,435
More or less willing to visit	Less willing	20%	38%	13%	29%	276,084
KDWPT areas with	No change	36%	37%	14%	13%	1,044,374
designated drone sites?	More willing	30%	35%	21%	14%	408,785
If KDWPT had drone sites,	Unlikely	23%	38%	14%	25%	452,454
likelihood of you flying?	Neutral	33%	38%	15%	15%	422,208
	Likely	36%	36%	16%	11%	701,260
					.,,,	,

Drone distance from parking lots?

		No	NO within 1	NO within	NO within	
		restrictions	football field	1/4 mile	½ mile	Total
What is your age?	18-24	40%	38%	10%	13%	256,095
	25-34	40%	35%	16%	10%	318,080
	35-44	33%	38%	12%	17%	271,817
	45-54	31%	32%	22%	15%	323,724
	55-64	36%	30%	9%	24%	297,578
	65 and older	32%	40%	9%	19%	297,884
What is your gender?	Male	38%	39%	12%	11%	890,284
	Female	33%	32%	14%	21%	874,894
Ethnicity/Race	African American/Black	36%	22%	22%	19%	84,084
	Hispanic/Latino	36%	32%	25%	8%	109,801
	White/Caucasian	36%	36%	12%	16%	1,428,463
	Other	27%	42%	11%	20%	142,830
Metro or non-metro county	Urban	33%	36%	16%	15%	1,104,787
	Rural	38%	34%	9%	18%	660,391
Visited KDWPT lands?	Yes	37%	34%	13%	16%	1,022,913
	No	33%	38%	12%	17%	649,810
Annual pass KS St Pks?	Yes	39%	32%	11%	18%	279,422
	No	35%	36%	14%	16%	1,444,656
Do you own a drone?	Yes	33%	40%	13%	14%	263,506
	No	36%	34%	13%	17%	1,501,672
Drone use over average	Every other month or less	32%	42%	13%	12%	174,018
year? (owners only)	Every month or more	33%	37%	12%	18%	89,488
Drone regs & rules	Great deal	41%	37%	3%	19%	74,700
knowledge?	Some	38%	33%	14%	15%	1,123,984
	Nothing	29%	39%	13%	19%	566,494
Acceptable to see but not	Unacceptable	18%	31%	13%	37%	283,693
hear drones on KDWPT	Neutral	26%	41%	16%	17%	529,401
areas?	Acceptable	46%	34%	11%	10%	911,508
More or less willing to visit KDWPT areas with	Less willing	24%	27%	13%	35%	268,049
	No change	38%	36%	14%	11%	1,094,124
designated drone sites?	More willing	34%	38%	11%	17%	403,004
If KDWPT had drone sites,	Unlikely	28%	38%	12%	21%	468,574
likelihood of you flying?	Neutral	32%	34%	16%	17%	439,093
	Likely	42%	35%	11%	12%	711,903

Drone distance from trails?

			Dione dis	tance from t		
		No	NO within 1	NO within	NO within	
		restrictions	football field	1/4 mile	½ mile	Total
What is your age?	18-24	58%	24%	9%	9%	248,134
	25-34	56%	16%	19%	9%	312,297
	35-44	41%	29%	16%	14%	285,375
	45-54	43%	20%	23%	14%	344,524
	55-64	34%	24%	13%	28%	286,250
	65 and older	39%	24%	16%	21%	315,390
What is your gender?	Male	48%	24%	14%	13%	908,140
	Female	41%	21%	19%	19%	883,830
Ethnicity/Race	African American/Black	53%	28%	14%	5%	88,843
	Hispanic/Latino	50%	25%	18%	7%	100,160
	White/Caucasian	46%	20%	16%	17%	1,452,132
	Other	26%	40%	19%	15%	150,834
Metro or non-metro county	Urban	42%	25%	16%	17%	1,109,286
	Rural	50%	18%	17%	15%	682,684
Visited KDWPT lands?	Yes	45%	23%	16%	16%	1,043,938
	No	45%	21%	18%	16%	661,312
Annual pass KS St Pks?	Yes	46%	21%	14%	19%	289,679
	No	45%	23%	17%	15%	1,461,681
Do you own a drone?	Yes	51%	17%	17%	15%	268,878
	No	44%	24%	16%	16%	1,523,092
Drone use over average year?	Every other month or less	52%	16%	17%	15%	180,155
(owners only)	Every month or more	49%	18%	17%	17%	88,723
Drone regs & rules	Great deal	44%	20%	16%	20%	79,590
knowledge?	Some	45%	23%	16%	16%	1,120,489
	Nothing	44%	23%	18%	15%	591,891
Acceptable to see but not	Unacceptable	19%	28%	15%	38%	299,109
hear drones on KDWPT	Neutral	40%	25%	20%	15%	503,508
areas?	Acceptable	57%	21%	12%	10%	936,037
More or less willing to visit	Less willing	26%	24%	17%	33%	298,581
KDWPT areas with	No change	49%	23%	16%	12%	1,085,912
designated drone sites?	More willing	47%	22%	18%	14%	407,477
If KDWPT had drone sites,	Unlikely	34%	25%	18%	22%	467,535
likelihood of you flying?	Neutral	48%	22%	15%	14%	445,221
	Likely	49%	24%	16%	12%	725,272
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Drone distance from playgrounds?

		No	NO within 1	NO within	NO within	
		restrictions	football field	1/4 mile	½ mile	Total
What is your age?	18-24	39%	34%	7%	20%	257,221
	25-34	25%	33%	15%	27%	333,990
	35-44	18%	42%	14%	25%	297,946
	45-54	19%	35%	13%	33%	356,244
	55-64	18%	29%	17%	35%	306,593
	65 and older	18%	30%	18%	35%	334,812
What is your gender?	Male	25%	35%	13%	26%	933,520
	Female	19%	33%	15%	33%	953,286
Ethnicity/Race	African American/Black	41%	21%	11%	27%	78,347
	Hispanic/Latino	27%	27%	11%	34%	120,262
	White/Caucasian	21%	33%	14%	31%	1,541,760
	Other	16%	54%	17%	13%	146,437
Metro or non-metro county	Urban	21%	34%	15%	30%	1,191,282
	Rural	24%	35%	13%	28%	695,524
Visited KDWPT lands?	Yes	24%	33%	16%	28%	1,090,043
	No	21%	34%	12%	33%	710,645
Annual pass KS St Pks?	Yes	24%	29%	18%	29%	284,794
	No	22%	34%	14%	30%	1,568,205
Do you own a drone?	Yes	28%	37%	11%	24%	283,106
	No	21%	33%	15%	31%	1,603,701
Drone use over average year?	Every other month or less	28%	32%	14%	25%	187,746
(owners only)	Every month or more	26%	47%	5%	22%	95,360
Drone regs & rules	Great deal	39%	22%	5%	33%	77,573
knowledge?	Some	21%	37%	16%	27%	1,170,903
	Nothing	22%	30%	13%	35%	638,331
Acceptable to see but not	Unacceptable	9%	31%	10%	51%	284,715
hear drones on KDWPT	Neutral	20%	36%	15%	28%	574,848
areas?	Acceptable	27%	35%	15%	23%	966,232
More or less willing to visit KDWPT areas with	Less willing	12%	23%	14%	50%	299,489
	No change	23%	36%	16%	25%	1,175,733
designated drone sites?	More willing	26%	36%	11%	27%	411,584
If KDWPT had drone sites,	Unlikely	12%	33%	14%	41%	499,384
likelihood of you flying?	Neutral	24%	35%	12%	28%	480,622
	Likely	27%	35%	14%	24%	738,011

			Drone distance	e from camp	grounds?	
		No	NO within 1	NO within	NO within	
		restrictions	football field	1/4 mile	½ mile	Total
What is your age?	18-24	40%	31%	19%	10%	253,982
	25-34	30%	31%	19%	20%	322,957
	35-44	18%	34%	22%	26%	297,207
	45-54	24%	28%	19%	29%	356,244
	55-64	14%	22%	24%	39%	304,359
	65 and older	17%	22%	23%	38%	320,533
What is your gender?	Male	24%	31%	22%	22%	932,322
	Female	23%	25%	20%	32%	922,959
Ethnicity/Race	African American/Black	43%	15%	20%	22%	86,311
	Hispanic/Latino	26%	36%	19%	18%	112,061
	White/Caucasian	23%	27%	21%	30%	1,502,949
	Other	19%	38%	28%	15%	153,959
Metro or non-metro county	Urban	22%	28%	22%	28%	1,193,006
	Rural	25%	28%	20%	26%	662,276
Visited KDWPT lands?	Yes	22%	30%	21%	26%	1,092,380
	No	26%	24%	21%	29%	672,499
Annual pass KS St Pks?	Yes	25%	30%	23%	22%	284,334
	No	23%	27%	21%	29%	1,530,375
Do you own a drone?	Yes	25%	32%	25%	18%	277,140
	No	23%	27%	21%	29%	1,578,142
Drone use over average year?	Every other month or less	26%	32%	24%	18%	184,312
(owners only)	Every month or more	23%	34%	27%	17%	92,828
Drone regs & rules	Great deal	29%	36%	16%	19%	80,771
knowledge?	Some	24%	30%	23%	24%	1,149,965
	Nothing	22%	24%	19%	35%	624,545
Acceptable to see but not	Unacceptable	8%	23%	17%	52%	292,435
hear drones on KDWPT	Neutral	22%	27%	23%	28%	540,393
areas?	Acceptable	29%	31%	21%	20%	959,958
More or less willing to visit	Less willing	11%	26%	18%	45%	290,019
KDWPT areas with	No change	26%	27%	22%	25%	1,144,813
designated drone sites?	More willing	25%	32%	21%	22%	420,449
If KDWPT had drone sites,	Unlikely	14%	32%	18%	36%	490,089
likelihood of you flying?	Neutral	29%	22%	21%	28%	467,047
	Likely	27%	31%	20%	22%	734,122

Drone distance from water bodies?

		NI-	NO within 1			
		No	NO within 1	NO within	NO within	T-4-1
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	40.04	restrictions	football field	½ mile	½ mile	Total
What is your age?	18-24	74%	13%	6%	7%	257,578
	25-34	56%	14%	18%	13%	303,263
	35-44	52%	25%	11%	12%	268,694
	45-54	48%	21%	14%	18%	334,041
	55-64	51%	22%	12%	15%	277,392
	65 and older	51%	23%	9%	17%	301,877
What is your gender?	Male	58%	18%	14%	10%	898,502
	Female	52%	21%	10%	18%	844,344
Ethnicity/Race	African American/Black	64%	16%	8%	12%	82,509
	Hispanic/Latino	54%	26%	15%	5%	103,699
	White/Caucasian	54%	20%	11%	15%	1,415,250
	Other	54%	13%	19%	14%	141,388
Metro or non-metro county	Urban	54%	20%	11%	15%	1,083,683
	Rural	56%	18%	13%	13%	659,163
Visited KDWPT lands?	Yes	57%	17%	13%	13%	1,025,914
	No	52%	23%	10%	15%	621,486
Annual pass KS St Pks?	Yes	56%	16%	14%	14%	276,517
	No	55%	20%	11%	14%	1,425,543
Do you own a drone?	Yes	56%	17%	16%	11%	253,667
	No	55%	20%	11%	14%	1,489,179
Drone use over average year?	Every other month or less	59%	11%	18%	12%	167,084
(owners only)	Every month or more	50%	28%	13%	9%	86,583
Drone regs & rules	Great deal	43%	22%	26%	9%	74,012
knowledge?	Some	57%	17%	12%	14%	1,104,094
	Nothing	51%	25%	9%	15%	564,741
Acceptable to see but not	Unacceptable	23%	28%	17%	32%	282,666
hear drones on KDWPT	Neutral	51%	23%	15%	10%	490,079
areas?	Acceptable	67%	15%	8%	10%	926,029
More or less willing to visit KDWPT areas with designated drone sites?	Less willing	27%	28%	18%	27%	282,073
	No change	62%	18%	10%	11%	1,076,385
	More willing	57%	18%	13%	12%	384,388
If KDWPT had drone sites,	Unlikely	42%	27%	12%	19%	468,859
likelihood of you flying?	Neutral	59%	15%	15%	12%	426,343
	Likely	60%	19%	11%		
	LINGIY	00%	19%	11%	11%	698,077

Drone distance from shorelines/beaches? No NO within 1 NO within NO within restrictions football field 1/4 mile ½ mile Total What is your age? 18-24 64% 19% 5% 12% 254,970 25-34 51% 19% 15% 15% 316,454 30% 13% 17% 35-44 40% 279,130 45-54 41% 22% 17% 20% 344,359 34% 27% 14% 26% 55-64 288,720 65 and older 35% 29% 10% 26% 315,773 46% 25% 13% 16% 925,048 What is your gender? Male Female 41% 23% 12% 24% 874,358 Ethnicity/Race 56% 16% 12% 15% 82,509 African American/Black Hispanic/Latino 46% 26% 10% 18% 115,327 White/Caucasian 42% 24% 14% 20% 1,454,562 Other 47% 30% 4% 19% 147,008 Metro or non-metro county Urban 43% 26% 12% 20% 1,118,172 22% 14% Rural 45% 20% 681,234 44% 24% Visited KDWPT lands? Yes 13% 19% 1,039,102 43% 25% 11% 21% 657,517 No 27% 14% Annual pass KS St Pks? Yes 42% 16% 278,909 No 44% 23% 12% 20% 1,476,790 46% 24% 12% 18% Do you own a drone? Yes 276,622 24% 13% 20% No 43% 1,522,785 Drone use over average year? Every other month or less 48% 22% 12% 18% 182,168 (owners only) Every month or more 43% 27% 11% 19% 94,453 50% 17% 20% 13% Drone regs & rules Great deal 82,789 knowledge? Some 45% 23% 14% 18% 1,138,962 27% **Nothing** 40% 9% 25% 577,656 24% 10% 44% 289,582 Acceptable to see but not hear Unacceptable 21% drones on KDWPT areas? Neutral 34% 33% 18% 16% 518,797 19% 10% Acceptable 57% 14% 939,973 More or less willing to visit 22% 23% 16% 39% 286.620 Less willing KDWPT areas with 27% 12% No change 46% 15% 1,105,890 designated drone sites? More willing 52% 17% 12% 19% 406,896 If KDWPT had drone sites, Unlikely 33% 28% 16% 23% 482,587 likelihood of you flying? 29% 9% 20% Neutral 42% 447,811 Likely 53% 19% 11% 17% 713,852

Drone distance from boat ramps?

		No	NO within 1	NO within	NO within	
		restrictions	football field	½ mile	½ mile	Total
What is your age?	18-24	57%	26%	10%	7%	250,880
what is your ago:	25-34	50%	22%	18%	10%	303,983
	35-44	42%	28%	15%	15%	275,268
	45-54	41%	26%	21%	12%	334,041
	55-64	36%	29%	11%	24%	
	65 and older	38%	29%	14%	20%	281,939
What is your gender?	Male	49%	29%	13%	9%	901,222
What is your genuer:	Female	38%	25%	17%	21%	855,902
Ethnicity/Race	African American/Black	58%	22%	11%	8%	72,733
Etimicity/Race		55%	25%	13%		
	Hispanic/Latino				7%	114,463
	White/Caucasian	42%	26%	16%	16%	1,424,248
Matra or non matra county	Other	40%	34%	12%	14%	145,680
Metro or non-metro county	Urban	45%	26%	16%	13%	1,094,851
\/:-:t1\/\D\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Rural	42%	28%	14%	17%	662,274
Visited KDWPT lands?	Yes	49%	24%	15%	12%	1,024,929
	No	36%	30%	16%	18%	650,978
Annual pass KS St Pks?	Yes	38%	28%	21%	13%	277,930
	No	45%	26%	14%	15%	1,436,394
Do you own a drone?	Yes	43%	21%	23%	13%	270,154
	No	44%	28%	14%	15%	1,486,970
Drone use over average year?	Every other month or less	45%	18%	26%	11%	174,795
(owners only)	Every month or more	40%	27%	16%	17%	95,360
Drone regs & rules	Great deal	50%	30%	8%	12%	80,257
knowledge?	Some	45%	26%	17%	13%	1,115,061
	Nothing	40%	28%	13%	19%	561,807
Acceptable to see but not hear	Unacceptable	22%	26%	13%	38%	282,407
drones on KDWPT areas?	Neutral	35%	31%	22%	12%	506,150
	Acceptable	54%	25%	13%	8%	920,535
More or less willing to visit KDWPT areas with	Less willing	22%	29%	20%	29%	282,472
	No change	48%	27%	14%	11%	1,067,957
designated drone sites?	More willing	48%	24%	14%	14%	406,695
If KDWPT had drone sites,	Unlikely	34%	30%	16%	20%	462,666
likelihood of you flying?	Neutral	46%	28%	15%	12%	440,642
	Likely	47%	26%	16%	11%	707,878