

RESEARCH IN BRIEF

Nevada vs. U.S. Residents' Attitudes Toward Surveillance Using Aerial Drones

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Unmanned Aircraft Systems (UAS) or Unmanned Aerial Vehicles (UAV), commonly known as “drones”, are free-flying aircraft that are controlled by remote technology. Drones have the capability to not only collect information along their flight path, but also to provide visual monitoring of activities in various public places. These flight systems have commonly been used for military operations and are increasingly being applied for use in search and rescue activities, land management practices, and climatic and geographical photo mapping. A recent national survey found that the vast majority of U.S. residents support the use of drones in these areas (Miethe, Lieberman, Sakiyama, & Troshynski, 2014).

Nevada is one of six states in the U.S. (along with sites in Alaska, New York, North Dakota, Texas, and Virginia) that have been federally designated as test locations to identify safety and operational issues associated with drone technology. The Creech Air Force Base located in Indian Springs, Nevada is home to multiple UAS test sites and training facilities including the Unmanned Aerial Vehicle Battlelab, Joint Unmanned Aerial Systems Center of Excellence, and the UAV-Logistic and Training Facility. These sites are responsible for UAS development and flight tests, as well as coordinating technology, training, tactics and operation related to these systems. In addition, the Predator and Reaper drones, used by the U.S. Military in Afghanistan and Iraq, were developed in Nevada. The state has a long-standing history of its desert landscape being utilized for a wide range of military testing, such as the Nevada Test Site that was established in 1951 to test nuclear weapons. Due to the presence of this type of technology in the state, and increasing media attention to drones, there is potential for Nevada residents to exhibit greater support for UAS technology compared to national public attitudes.

HIGHLIGHTS

- Eighty-three percent of Nevada residents in this survey were opposed to using drones to monitor people’s daily activities around their home. The majority of respondents were also opposed to drones monitoring people at work (59%) and in their daily activities in open public places (48%).
- Public attitudes about using drones for domestic surveillance varied across different social groups in Nevada. For surveillance in both public and private places, opposition to drone use was highest among persons with lower incomes and those who emphasize individualism (i.e., prefer a government that focuses on individual rights over public safety).
- About two-thirds of the respondents in Nevada agreed that drone surveillance is an invasion of privacy, especially when it occurs around the home (77%) or at work (66%). High levels of agreement across contexts were also found in people’s views of drones as “excessive surveillance.” These two concerns were the major reasons for opposition to domestic surveillance by drones.
- A belief that drones increase public safety was the primary reason given by respondents who support the use for domestic surveillance by government entities.
- Respondents in Nevada strongly opposed the use of drones for monitoring people’s daily activities when it is done by private citizens (78%), commercial businesses (71%), and the mass media (66%). Similar to national findings, Nevada residents were far less opposed to drone surveillance of people’s daily activities by local, state, and federal government agencies (44% opposed this activity).

A previous national survey (Lieberman, Miethe, Troshynski, & Heen, 2014) found that 93% of U.S. respondents are opposed to drone surveillance to monitor people’s daily activities around their home, with 77% opposing drone use for monitoring people at work and 63% in public places. Overall, 88% of U.S. adults view drone surveillance as an invasion of privacy when it is used to monitor individuals in their home, and 79% feel privacy would be invaded if the surveillance was at their place of employment. Although it appears that U.S. residents are generally opposed to drone surveillance of individuals in public and private settings, support was found for the use of drones to increase public safety, particularly when used by a government agency (79%).

This *Research in Brief* summarizes the results of a survey distributed to Nevada residents to assess their attitudes toward aerial drone use for domestic surveillance activities. The findings are compared to the results of a national survey of public opinion about aerial drone use to examine how the attitudes of Nevada residents differ (see Lieberman et al., 2014). These attitudes were examined by analyzing responses about visual drone surveillance of citizens across several contexts: in and around their homes, in open public places (e.g., parks, streets) and as employees at their workplace. This report contains a summary of these findings, factors related to opposition and support of visual drone surveillance across various contexts, policy implications of the findings, and the limitations associated with this study.

Data Source and Methods

This study used an online survey approach to assess public attitudes in Nevada about drone use for domestic surveillance. The survey was conducted from July 9-31, 2014, and restricted to Nevada residents over 18 years of age. The sampling frame was provided by a national organization (ClearVoice Research). A total of 133 surveys were completed within this time period.

Nevada’s Views about Domestic Surveillance by Aerial Drones in Particular Places

The present study is a replication of the aforementioned national survey (Lieberman et al., 2014) and focuses on the public attitudes of Nevada residents regarding drone use and domestic surveillance in three different places or contexts: (1) in open public places, (2) at the workplace, and

(3) around their homes. The specific wording of the questions asked about drone use in each location include the following:

- *In general, do you support or oppose the use of aerial drones in the U.S. for monitoring people’s daily activities in open public places?*
- *In general, do you support or oppose the use of aerial drones in the U.S. for monitoring employees’ daily activities at their workplace?*
- *In general, do you support or oppose the use of aerial drones in the U.S. for monitoring citizens’ daily activities around their homes?*

Table 1: Opposition to Drone Use for Domestic Surveillance by Locations in the U.S. and in Nevada

		% Opposed to Drone Use for:	
Monitoring daily activities:			
<i>around ordinary citizens' homes</i>	U.S.	93%	
	NEV	83%	
<i>of employees at their workplace</i>	U.S.	77%	
	NEV	59%	
<i>of people in open public places</i>	U.S.	63%	
	NEV	48%	

Source: National Survey, June 2014 (n = 524)
Nevada Survey, July 2014 (n = 133)

As shown in Table 1, a clear majority of survey respondents were opposed to using drones for domestic surveillance activities, but this general level of opposition varied across contexts. In particular, a strong majority (83%) of Nevada respondents opposed drone surveillance around their homes and over half of them (59%) opposed drone use for workplace surveillance. Slightly less than half (48%) of Nevadans were opposed to drone surveillance in open public places. Compared to national data on the same questions, Nevada residents are less opposed to drone monitoring of people’s daily activities across all three contexts.

Perceived Costs and Benefits of Drone Use for Domestic Surveillance

To explore the possible reasons underlying these public attitudes about drones and domestic surveillance, we asked our Nevada sample whether they agreed or disagreed with a series of statements about the potential costs, benefits, and issues associated with using drone for monitoring people’s behavior in different locations.

Table 2: U.S. and Nevada Attitudes about Drones and Domestic Surveillance Conducted by Particular Groups

Percent Agreeing with Statement:	Governmental Use of Drones in Open Public Places...		Business Use of Drones at the Workplace...		Private Citizen Use of Drones around Their Homes...	
	U.S.	Nevada	U.S.	Nevada	U.S.	Nevada
<i>is excessive surveillance?</i>	(73%)	63%	(84%)	74%	(92%)	78%
<i>violates personal privacy?</i>	(70%)	64%	(79%)	66%	(88%)	77%
<i>is an effective monitor of people?</i>	(60%)	51%	(48%)	45%	(42%)	41%
<i>is an injury threat from user error?</i>	(42%)	44%	(45%)	42%	(53%)	51%
<i>is an injury threat from "hackers"?</i>	(39%)	47%	(44%)	42%	(48%)	54%
<i>increases public safety?</i>	(39%)	50%	(13%)	20%	(16%)	20%
<i>increases your personal safety?</i>	(33%)	39%	(14%)	18%	(17%)	22%
<i>is a necessary form of surveillance?</i>	(10%)	23%	(17%)	23%	(9%)	12%

Source: National Survey, June 2014 (n = 524); Nevada Survey, July 2014 (n = 133)

As shown in Table 2, the proportion of respondents who agree with each statement about drones varies across contexts and location of the surveillance. Overall, a majority of residents in Nevada perceived that drone use for monitoring people’s activities is “excessive surveillance” and “violates personal privacy.” The respondents were most likely to agree with these two statements when drones were used by citizens to monitor other people around their homes, followed by workplace surveillance, and governmental use of drones to observe people in public places. Compared to our national sample, the respondents in Nevada were generally less likely to view domestic surveillance by drones as either excessive monitoring or a violation of personal privacy in all three contexts (see Table 2).

In terms of potential benefits of drone surveillance, the highest level of agreement was found in the public’s view of its effectiveness and impact on public safety. This was especially true for the governmental use of drones in open public places. As shown in Table 2, a substantial proportion (50%) of respondents agreed that the government’s use of drones in public places “increases public safety” and more than half (51%) agreed that drone use in public places “is an effective way of monitoring people.” However, only one-fifth (18- 22%) of the sample believed that drone use at the workplace or at their home would increase either public safety or their own personal safety.

When asked to indicate why they would oppose drone surveillance in different locations, most respondents in both the national and Nevada samples selected “invasion of privacy” or “excessive surveillance” as the primary reasons for their opposition (see Table 3). Concern about privacy was the major reason for Nevadan’s opposition to drone surveillance, whereas beliefs about excessive surveillance was the major reason of opposition in the national sample. In contrast, both samples identified “increases public safety” and, to a lesser extent, “reasonable method for monitoring people’s activities” as the primary reasons for supporting drone surveillance across all three contexts.

Views about Drone Surveillance by Particular Groups

Although most respondents for the U.S. sample are opposed to drone surveillance of people’s activities across various contexts, our Nevada sample indicated slightly more lenient attitudes for its domestic use (see Table 1). For both samples, however, this opposition is based primarily on beliefs about drone use being an invasion of privacy and an excessive form of surveillance (see Table 2 and 3). Nevertheless, a remaining question about drone use for domestic surveillance involves whether public opposition or support for these practices depend on the characteristics of the user of this technology. Answers to this question are shown in Table 4.

Table 3: Reasons for Opinions about Domestic Surveillance Conducted by Particular Group

A. Major Reason for Supporting Drone Use for Domestic Surveillance by:

	<i>Government</i>		<i>Business</i>		<i>Private Citizens</i>	
	U.S.	Nevada	U.S.	Nevada	U.S.	Nevada
Increases Public Safety	(79%)	62%	(38%)	35%	(39%)	57%
Reasonable Monitoring Method	(13%)	21%	(23%)	38%	(36%)	24%
Effective Monitoring Method	(4%)	8%	(27%)	27%	(12%)	10%
Innovative Technology	(4%)	8%	(12%)	0%	(13%)	10%
	(100%)	100%	(100%)	100%	(100%)	100%

B. Major Reason for Opposing Drone Use for Domestic Surveillance by:

	<i>Government</i>		<i>Business</i>		<i>Private Citizens</i>	
	U.S.	Nevada	U.S.	Nevada	U.S.	Nevada
Invasion of Privacy	(48%)	53%	(45%)	48%	(45%)	58%
Excessive Surveillance	(50%)	35%	(51%)	33%	(51%)	30%
Injury by Technical/Human Error	(1%)	1%	(1%)	6%	(1%)	3%
Injury by "Hackers"	(1%)	11%	(2%)	5%	(2%)	6%
Ineffective Monitoring Method	(1%)	0%	(2%)	9%	(2%)	4%
	(100%)	100%	(100%)	100%	(100%)	100%

Source: National Survey, June 2014 (n = 524); Nevada Survey, July 2014 (n = 133)

Based on our Nevada survey, public attitudes about using drones for domestic surveillance are strongly influenced by the person or group that is using the technology. The level of opposition for drone surveillance is highest when it involves use by private citizens (78%), followed closely by corporate or business users (71%) and the mass media (66%). A similar trend is found for the national surveys but the proportion of opposition was higher across all contexts (see Table 4).

In Nevada, the least opposition for using drone technology for domestic surveillance activities is found when the users are state/local law enforcement agencies (44% oppose) or the federal government (44%). Both of these types of federal and state agencies also had the least opposition among the different groups in the national survey.

Implications for Public Policy on Using Aerial Drones for Domestic Surveillance

The growth of aerial drone technology and its application in various substantive fields has become a major public policy issue. Currently, sites in six states (Alaska, New York, Nevada, North Dakota, Texas and Virginia) have been designated as locations for developing operational practices and policies about this technology. The research and testing that is performed in Nevada will be mainly focused on air traffic control, and geographic

and climatic diversity, and the state will provide information that can be used by the FAA to develop national standards for future drone operations and for state policy. In 2014, 35 states considered UAS/ UAV bills and resolutions to regulate how, when, and where aerial drones may be used in both public and private places (NCSL, 2014).

Overall, our results indicated that Nevada residents are more supportive of aerial drone use for domestic surveillance across various contexts compared to the U.S. population. This may be due to Nevada’s long history of military drone operations, as well as the presence of military bases and the Nevada National Security Site within the state. Another possible explanation is the potential economic growth that drone industries are expected to bring to the state with the recent FAA selection as an approved test-site.

Within Nevada, however, there are some county differences in the support of this technology. For example, Washoe county (i.e., Reno) residents in our sample were more supportive of drone surveillance of people’s activities in open public places than other state residents, but Clark county (i.e., Las Vegas) residents were more supportive than other residents of monitoring people at work. Specific reasons for these county differences will be addressed in subsequent reports.

Table 4: Attitude Toward Particular Groups' Drone Use for Domestic Surveillance in the U.S. and in Nevada

% Opposed to Drone Use for:		
Monitoring daily activities of ordinary people by:		
Private Citizens	81%	U.S.
	78%	NEV
Corp/Business	79%	U.S.
	71%	NEV
Mass Media	75%	U.S.
	66%	NEV
State/Local Police	62%	U.S.
	44%	NEV
Federal Government	60%	U.S.
	44%	NEV

Source: National Survey, June 2014 (n = 524)
Nevada Survey, July 2014 (n = 133)

If public opinion is an important basis for developing public policy, the results of the current survey raise serious questions about the public’s willingness to support drone use in any context of domestic surveillance. In fact, public opposition to drones in Nevada and other states is widespread when they are used to monitor people’s activities around their home. Public opposition is also substantial for watching people at their workplace and in more open public places.

The important next step for developing legal policy for aerial drone surveillance that is responsive to public opinion is to better identify the particular aspects of UAS technology that underlie these major concerns with privacy and the effectiveness of its usage. For example, do the structural features of UAS equipment (e.g., audio sounds, its visual acuity, continuity of monitoring) affect public attitudes toward this technology? Are public concerns about privacy reduced (or enhanced) by the visibility and intrusiveness of UAS technology or clearly defined parameters of the appropriate use of the technology? We are currently conducting research in these areas to provide a more complete understanding of the basis for public acceptance and opposition to this new technology.

Limitations of this Study

The primary limitations of the current study involve

its sampling design, time frame, and the wording of questions in the survey. Specifically, by using an internet sampling frame, our results may not be representative of all U.S. adults and residents of Nevada. Our results are also restricted to internet users over a 22-day period in July of 2014. To minimize threats to the measurement validity of our study, we used less affective and pejorative language in the survey (e.g., using the term “monitoring” rather than “surveillance”). Unfortunately, even words like “monitoring” may have negative connotations that also affect response patterns.

Due to these limitations of the current study, we recommend that some caution be exercised when interpreting the observed findings and making inferences about state and national trends.

References

Lieberman, J. D., Miethe, T. D., Troshynski, E. I., & Heen, M. (2014). Aerial drones, domestic surveillance, and public opinion of adults in the United States. Research in Brief. Center for Crime and Justice Policy: Las Vegas, NV. CCJP 2014-03.

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