

Eighteen Months after Katrina, Sacramento Region Residents Remain Unprepared and Unwilling to Pay Higher Taxes for Better Flood Protection, but Want Local Governments to Limit Building in Floodplains and Share Liabilities if Flood Occurs

Amy Q. Liu, Ph. D.
Kevin Wehr, Ph. D.
Otis Scott, Ph. D.

California State University, Sacramento

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Sacramento has become one of the fastest growing regions in California as people relocate from the Bay Area and other expensive coastal communities in search of affordable homes in the Central Valley. To meet the increased demand, many new houses in the Sacramento region and the Central Valley have been built in flood-prone areas. While those homes are supposed to be protected by levees, many areas are at risk for a disaster similar to Hurricane Katrina. If levees break due to a big storm, from an earthquake or other causes, many areas in the Sacramento region and other central valleys could become submerged under deep water. The state could be sued for damage claims and other liabilities based on the precedent established by the Paterno ruling in 2003 that held the state responsible for a 1986 levee break in Linda, Yuba County. Such a liability in the Sacramento area could put the state at risk of bankruptcy (Department of Water Resources January 2005).

Since Hurricane Katrina, Governor Schwarzenegger and state lawmakers have taken some serious measures to reduce the risk of damage due to flood in the region. On February 24, 2006, after inspecting levees in the region and the Central Valley with federal and local officials, Governor Schwarzenegger declared the levees to be in a state of emergency. Since then, millions of dollars have been spent on levee repairs and the Governor and the state legislature have helped pass two bond issues that will provide even more money for those repairs. Due to their age and initial design, however, improving and maintaining the massive levee systems in the region requires a great deal more work and financing.

Since the Governor declared a state of emergency for levees in the Sacramento region and the Central Valley, local governments, businesses, and media have also tried very hard to inform people in the Sacramento region about flood risks, and have urged people to take actions to prepare for them. For example, the Sacramento *Bee* has put forward a series of articles related to floods, flood preparation, and flood control. Several reporters have received national awards for their outstanding research and educational efforts. Businesses and local governments have conducted many workshops and public forums to discuss the risks and have urged citizens to buy flood insurance and/or have an evacuation plan. All of those efforts have been made in the hope that the public will not only become more aware of this huge risk faced by the Sacramento region, but will take action as well.

Have all these publicity and educational efforts by the state and local governments, media, and businesses made any difference eighteen months after Katrina and a year after the Governor declared a state of emergency for levees in the Central Valley? For example, is the public in the region more prepared than a year ago? Are they willing to pay more property taxes to improve flood protection in the region? Moreover, what do they expect local governments to do to better protect them?

According to the data from *The 2007 Sacramento State Annual Survey of the Region*, the educational efforts in the region and the state in the past year have not translated into citizens taking enough meaningful actions in the region. Many people in the region are still as unprepared for a big flood as they were a year ago. Many (12%) remain unaware of whether they live in flood-prone areas or not, and this is more true for those who recently moved to the region (20%), for non-whites (17%), for non-homeowners (25%), and for younger people (21%). Half of the families (50%) still have no evacuation plan in case of an emergency such as a big flood, and fewer (18%) currently carry flood insurance. These results are almost exactly the same as we reported a year ago when the Governor had just declared a state of emergency for the levees in the region (12% don't know in 2007 vs. 10% in 2006, 50% have no evacuation plan in 2007 and 2006, and 18% have insurance in 2007 vs. 19% in 2006, Liu, Scott, and Bowerman 2006a).

Moreover, if an election were held today and homeowners were asked whether they would vote to pay a higher property tax for better flood protection in the region, only 31 percent of the households in the region would vote yes, 62 percent would vote no, and seven percent were undecided. In fact, even for the families who live in the flood areas less than half would vote yes (47%).

Although many residents in the Sacramento region are unprepared and unwilling to pay higher taxes for better flood protection in the region, an overwhelming majority do want local governments to control new housing development in floodplains and to bear the financial consequences if damages occur due to flooding. Specifically, 88 percent think local governments should restrict the construction of new homes in areas without adequate flood protection and 68 percent think local governments should encourage new homes built in those areas to have living spaces elevated above potential floodwaters to limit flood damages and speed cleanup. Seventy-one percent also endorse the proposal that would require local governments to share liability costs with the state government if flooding occurs in housing developments that local governments have approved.

Our data have implications for the state and the region, especially the state and local governments. Our study suggests that simple notification or educational efforts to date have not been enough to make the general public in this region take needed action to better protect themselves. However, at the same time, these citizens do have high expectations for their state and local governments to protect them from flood risks.

We want to emphasize that this survey was largely conducted before the mail ballots were distributed to property owners for the Sacramento Area Flood Control Agency (SAFCA) in early March. In addition, this survey did not include non-residential property owners. Therefore, the survey only reflects the general opinions of residents in the region,

not the specific property owners in SAFCA assessment areas. In short, this report did not seek to measure public support for the SAFCA assessment ballots.

These are some of the results from *The 2007 Sacramento State Annual Survey of the Region*, conducted from February 17 to March 8, 2007, by the Institute for Social Research (ISR), California State University, Sacramento.

Many residents still unaware of flood risks for their homes

Although seventy-one percent of the residents indicate that their homes are not located in flood plains, 17 percent know for sure they live in flood-prone areas. However, 12 percent of the households in the region still don't know whether their homes are located in flood areas or not. These results are almost the same as what we reported a year ago (71% no, 17% yes and 12% don't know in 2007 vs. 73% no, 17% yes, and 10% didn't know in 2006). It seems that all these educational efforts, media reports, or business and government outreach programs have not translated into meaningful action for the residents in the region.

County of residence significantly affects the awareness of potential homes at risk of flooding. Residents in Sacramento (22%) and Yolo (20%) counties are more likely to live in flood areas. They are also more uncertain whether they live in flood-prone areas or not (17% don't know in Yolo County and 15% in Sacramento County vs. 5% in Placer and 4% in El Dorado counties). Non-home owners (25%), those age 40 or younger (21%), those with household income less than \$30,000 (21%), those who moved into the region in the past 6 years (20%), and non-white residents (17%) are more unsure of whether their homes are located in the flood plains or not.

Such unawareness poses a great risk for the region. Compared to those who know for sure that they live in flood areas, those who are unsure of their flood risk are much less likely to have an evacuation plan (53% who know vs. 37% who don't know), carry flood insurance (60% vs. 14%), and vote yes on a higher property tax for better flood protection (47% vs. 27%).

“Is your home in a flood plain? If you don't know, it is very important for you to indicate this.”

Comparison between 2007 and 2006

	Sacramento Region (2007)	Sacramento Region (2006)
Yes	17%	17%
No	71	73
Don't know	12	10

Comparison among the Four Counties in the Sacramento Region

	Sacramento County	Yolo County	Placer County	El Dorado County
Yes	22%	20%	3%	7%
No	63	63	92	89
Don't know	15	17	5	4

Comparison between Homeowners and Others

	Homeowners	Others
Yes	18%	13%
No	75	62
Don't know	7	25

Comparison among People with Different Age Groups

	40 or Younger	41 to 64	65 or Plus
Yes	16%	17%	17%
No	63	75	75
Don't know	21	8	8

Comparison among People with Different Household Incomes

	Less than \$30,000	\$30,000 - Less than 100,000	\$100,000 Or More
Yes	19%	18%	15%
No	60	71	81
Don't know	21	11	4

Comparison among People with Different Length of Residence in the Region

	6 Years or Less	7 to 19 Years	20 Years or Longer
Yes	14%	17%	17%
No	66	69	74
Don't know	20	14	9

Comparison between White and Other Racial Groups

	White	Other Racial Groups
Yes	15%	21%
No	76	62
Don't know	9	17

“Does your family have an evacuation plan in case of an emergency such as flood or earthquake in the Sacramento region?”

Comparison among People Living in Different Areas

	Sacramento Region	Live in Flood Areas	Not Live in Flood Areas	Don't Know
Yes	48%	53%	49%	37%
No	50	45	50	58
Don't know	2	2	1	5

“Do you currently have flood insurance?”

Comparison among People Living in Different Areas

	Sacramento Region	Live in Flood Areas	Not Live in Flood Areas	Don't Know
Yes	17%	60%	9%	14%
No	71	38	88	73
Don't know	12	2	3	13

“If an election were held today and your household were asked to vote to pay a higher property tax for better flood protection in the region, would you vote yes or no?”

Comparison among People Living in Different Areas

	Sacramento Region	Live in Flood Areas	Not Live in Flood Areas	Don't Know
Yes	31%	47%	27%	27%
No	62	45	66	64
Don't know	7	8	7	9

Half have no evacuation plan

If a major disaster occurs in the Sacramento region, only 48 percent of the families have an evacuation plan. Fifty percent don't have one, and two percent don't know. These results are almost the same as what we reported a year ago (48% yes, 50% no, and 2% don't know in 2007 vs. 49% yes, 50% no and 1% didn't know in 2006). It seems that the educational efforts, media reports, and business and government outreach programs have not inspired families to formulate an evacuation plan in the region.

Compared to white residents (51%) and homeowners (50%), other racial groups (43%) and non-homeowners (45%) are less likely to have an evacuation plan for their families. However, the residents who have lived in the region less than 6 years (57%) and those who do not know whether their homes are located in floodplains (58%) are the least likely to have an evacuation plan. Furthermore, almost half of those who know their homes are located in the flood plains (45%) and long time residents (48% for those live in the region 7 to 19 years and 49% for those 20 years or longer) don't have any emergency evacuation plan at all.

“Does your family have an evacuation plan in case of an emergency such as flood or earthquake in the Sacramento region?”

Comparison between 2007 and 2006

	Sacramento Region (2007)	Sacramento Region (2006)
Yes	48%	49%
No	50	50
Don't know	2	1

Comparison between White and Other Racial Groups

	White	Other Racial Groups
Yes	51%	43%
No	48	55
Don't know	1	2

Comparison between Homeowners and Others

	Homeowners	Others
Yes	50%	45%
No	49	52
Don't know	1	3

Comparison among People with Different Length of Residence in the Region

	6 Years or Less	7 to 19 Years	20 Years or Longer
Yes	41%	49%	51%
No	57	48	49
Don't know	2	3	0

Comparison among People Living in Different Areas

	Live in Flood Areas	Not Live in Flood Areas	Don't Know
Yes	53%	49%	37%
No	45	50	58
Don't know	2	1	5

Even fewer residents carry flood insurance

An overwhelming majority of the people in the Sacramento region (78%) have no flood insurance. This is almost the same as a year ago when 77 percent of the residents reported that they had no flood insurance. In fact, more than 80 percent of the residents in El Dorado (85%), and Placer (87%) counties, non-homeowners (90%), and residents who are 65 or older (83%) do not have any flood insurance for their families. Moreover, one-third (38%) of the residents living in flood areas and a majority of the residents (73%) who have no idea whether their homes have flood risks also carry no flood insurance.

“Do you currently have flood insurance?”

Comparison between 2007 and 2006

	Sacramento Region (2007)	Sacramento Region (2006)
Yes	18%	19%
No	78	77
Don't know	4	4

Comparison among the Four Counties in the Sacramento Region

	Sacramento County	Yolo County	Placer County	El Dorado County
Yes	22%	19%	8%	11%
No	74	75	87	85
Don't know	4	6	5	4

Comparison between Homeowners and Others

	Homeowners	Others
Yes	22%	6%
No	74	90
Don't know	4	4

Comparison among People with Different Ages

	40 or Less	41 to 64 Years	65 or Plus
Yes	20%	18%	15%
No	69	80	83
Don't know	11	2	2

Comparison between White and Other Racial Groups

	White	Other Racial groups
Yes	15%	25%
No	81	69
Don't know	4	6

Comparison among People Living in Different Areas

	Live in Flood Areas	Not Live in Flood Areas	Don't Know
Yes	60%	9%	14%
No	38	88	73
Don't know	2	3	13

Majority of residents don't want to pay higher property tax for better protection

This year we added a new question to the survey to find out whether residents are willing to pay a higher property tax for better flood protection in the region. Only 31 percent of the households in the region would vote yes, 62 percent would vote no, and seven percent are undecided when asked what their vote would be if an election were held that day.

Even many who are living in floodplains (45%) don't want to pay higher property taxes. In fact, those who are living in flood areas are divided: 47 percent favor higher taxes and 45 percent against it. Democrats are also divided: 45 percent would vote yes and 47 percent would vote no. A strong majority of Republicans (75%) and other voters (64%) object to a higher property tax measure.

For those who are willing to pay higher taxes, two-thirds of them (67%) are only willing to pay less than \$100 more a year for the next 30 years. This number holds true whether they live in floodplains or not and regardless of political affiliation.

“If an election were held today and your household were asked to vote to pay a higher property tax for better flood protection in the region, would you vote yes or no?”

Comparison among People Living in Different Areas

	Sacramento Region	Live in Flood Areas	Not Live in Flood Areas	Don't Know
Yes	31%	47%	27%	27%
No	62	45	66	64
Don't know	7	8	7	9

Comparison among the Four Counties in the Sacramento Region

	Sacramento County	Yolo County	Placer County	El Dorado County
Yes	36%	35%	22%	21%
No	58	54	70	76
Don't know	6	11	8	3

Comparison among Registered Voters

	Democrats	Republicans	Other Voters
Yes	45%	19%	30%
No	47	75	64
Don't know	8	6	6

“How much more property tax per year is your household willing to pay for the next 30 years?”

	Sacramento Region
Less than \$50	26%
More than \$50 but less than \$100	41
More than \$100 but less than \$200	17
\$200 or more	9
Don't know	7

Strong support for limiting new housing construction in flood areas

An overwhelming majority of residents think local government should minimize flood risks in the region. Nearly nine out of ten area residents (88%) think local governments should limit the construction of new homes in places with inadequate flood protection. Only nine percent take the opposite position, and three percent have not yet formed an

opinion. This is almost the same as a year ago (88% yes, 9% no, and 3% don't know in 2007 vs. 88% yes, 8% no, and 4% didn't know in 2006, Liu, Scott, and Bowerman 2006b).

Very strong support for restricting growth in flood prone areas is shared by an overwhelming majority of the general public no matter which county they live in (95% in Yolo, 91% in El Dorado, 89% in Placer County, and 87% in Sacramento County), or whether they live in floodplains (89%) or not (89%). This plan is also endorsed by a vast majority of registered voters in the region regardless of whether they are Democrats (91%), Republicans (89%), or other voters (89%).

“Do you think local governments should limit the construction of new homes in places without adequate flood protection?”

Comparison between 2006 and 2007

	Sacramento Region (2007)	Sacramento Region (2006)
Yes	88%	88%
No	9	8
Don't know	3	4

Comparison among the Four Counties in the Sacramento Region

	El Dorado County	Placer County	Sacramento County	Yolo County
Yes	91%	89%	87%	95%
No	9	10	9	3
Don't know	0	1	4	2

Comparison among People Living in Different Areas

	Live in Flood Areas	Not Live in Flood Areas	Don't Know
Yes	89%	89%	85%
No	9	9	9
Don't know	2	2	6

Comparison among Registered Voters

	Democrats	Republicans	Other Voters
Yes	91%	89%	89%
No	6	9	9
Don't know	3	2	2

More than two-thirds favor building elevated housing in flood areas

More than two thirds of area residents (68%) think local governments should also encourage building new homes with living spaces that are elevated above potential flood levels to speed cleanup and reduce damages, 23 percent are against the idea, and nine percent don't know. These results are very similar to those reported a year ago (68% yes, 23% no, and 9% don't know in 2007 vs. 70% yes, 19% no, and 11% didn't know in 2006 Liu, Scott, and Bowerman 2006b).

Those 65 or older (59%), white respondents (66%), and Republican voters (62%) show less support for building this kind of housing in flood prone areas than people who are younger than 65 (69% for those between 41 and 64 and 76% for those 40 or younger), non-white residents (75%), Democrats (72%), and other voters (70%).

“Do you think local governments should encourage building new homes with elevated living spaces that are above potential floodwater to speed cleanup and reduce damages?”

Comparison between 2006 and 2007

	Sacramento Region (2007)	Sacramento Region (2006)
Yes	68%	70%
No	23	19
Don't know	9	11

Comparison among People with Different Age Groups

	40 or Less	41 to 64	65 or Plus
Yes	76%	69%	59%
No	17	23	28
Don't know	7	8	13

Comparison between White and Other Racial Groups

	White	Other Racial groups
Yes	66%	75%
No	25	18
Don't know	9	7

Comparison among Registered Voters

	Democrats	Republicans	Other Voters
Yes	72%	62%	70%
No	20	29	19
Don't know	8	9	11

More than 70 percent want local governments to share liability costs with the state government if flooding occurs

Although a majority of residents in the Sacramento region are unwilling to pay higher taxes to improve flood protection in the region, they (71%) do want local and state governments to pay damages and other liability costs if a flood occurs.

According to the survey, more than 70 percent (71%) of residents in the Sacramento region favor the proposal that would require local governments that have approved housing projects in flood prone areas to share liability costs with the state government if flooding occurs. In contrast, only 20 percent oppose such an idea, and 9 percent haven't made up their mind on this issue yet. These findings are almost the same as we reported a year ago (71% favor, 20% oppose, and 9 percent don't know in 2007 vs. 72% favor, 16% oppose, and 12% didn't know in 2006 Liu, Scott, and Bowerman 2006b).

Moreover, this proposal enjoys the support from almost two-thirds of the registered voters in the region regardless of whether they are Democrats (79%), Republicans (64%), or other voters (69%).

“Many proposals have been made to address flood and drought control, water management, and housing development in the region and the state. Please tell me whether you favor or oppose the following plans. What about requiring local governments that have approved housing projects in flood-prone areas to share liability costs with the state government if flooding occurs?”

Comparison between 2007 and 2006

	Sacramento Region (2007)	Sacramento Region (2006)
Favor	71%	72%
Oppose	20	16
Don't know	9	12

Comparison among Registered Voters

	Democrats	Republicans	Other Voters
Favor	79%	64%	69%
Oppose	13	28	22
Don't know	8	8	9

Survey methods

The above results are based on our sixth annual survey, *The 2007 Sacramento State Annual Survey of the Region*¹. This study is a computer-assisted telephone interview of 1106 adult residents age 18 and older from randomly selected households in the Sacramento region which includes Sacramento, Yolo, Placer, and El Dorado counties. The objective of this project is to assess quality of life and public opinion in the Sacramento region regarding a wide range of important local and national issues.

More than 30 students conducted phone interviews in English and Spanish from February 17 to March 8, 2007, at the Institute for Social Research, California State University, Sacramento. Our sample is still quite representative of the four counties in the Sacramento region when compared with the 2000 U.S. Census (9% in the Census vs. 9.4% in the sample in Yolo County; 9% in the Census vs. 10.5% in the sample in El Dorado County, 14% in the Census vs. 19.2% in the sample in Placer County, and 68% residents in the Census vs. 60.9% in the sample in Sacramento County). The differences may reflect the changes in the population of the region. The margin of error for the survey is approximately ± 3 percentage points at the 95 percent confidence level. The error for group comparisons in the Sacramento region would be higher than ± 3 percentage points at the 95 percent confidence level.

This survey has compared the Sacramento region findings with those from other California regions, the state, and the nation. Data cited regarding the state and other California regions often comes from the Public Policy Institute of California (PPIC) Statewide Surveys. Nationwide data often comes from Gallup polls.

The College of Social Sciences and Interdisciplinary Studies (SSIS), the Department of Sociology, the Office of Public Affairs, and the Office of Community Collaboration at California State University, Sacramento sponsored this project. Dr. Joseph Sheley has been actively involved in this project and offered significant contributions to the effort.

This research is directed by Amy Liu, Ph.D., Department of Sociology and Institute for Social Research, California State University, Sacramento. Dr. Liu is an expert in public opinion polls, and has conducted over 20 surveys in the past nine years, including:

- 2006, 2005, 2004, 2003, and 2002 Sacramento State Annual Survey of the Region
- Survey of Iowa Business about Eldercare and Eldercare Needs
- Story County Conservation Board Survey
- Grundy County Youth Needs Assessment

Direct all correspondence to Dr. Amy Q. Liu, Department of Sociology, California State University, Sacramento, 6000 J Street, Sacramento, CA 95819-6005; 916-278-7572 (phone); 916-278-6281 (fax); amyliuus@yahoo.com. Please visit our web site

¹ This study was called Annual Survey of Public Opinion and Life Quality in the Sacramento Region before 2006.

(www.csus.edu/ssis/) for the executive summaries and full reports for the 2006, 2005, 2004, 2003, and 2002 annual surveys in the Sacramento region.

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Appendix I: The 2007 Annual Survey Research Team Members and Sponsors

Director: Amy Qiaoming Liu, Ph. D.
Associate Professor, Department of Sociology
California State University, Sacramento
6000 J. Street, Sacramento, CA 95819-6005
916-278-7572 (phone),
916-278-6281 (fax)
amyliuus@yahoo.com (e-mail)

Advisor: Otis Scott, Ph. D.
Dean, College of Social Science and Interdisciplinary Studies
California State University, Sacramento
916-278-6504 (phone),
scottol@csus.edu (email)

Data Collection Supervisors: Jessica Hayes, Kristie Harris
Michael Small, Patty Crosby
Sandra Sutherland, and Ernest Cowles
Institute for Social Research
California State University, Sacramento

Editors: Britte H. Livingston and Michael Small
California State University, Sacramento

Graphic Designer: California State University, Sacramento

Team Members: Edward Alicante, Carolina Aviles, Dr. Manuel Barajas, Joe Barron, Susannah Bartz, Kenneth Bowerman, Gerald Cager, Alfredo Cortez, Kym Crowder, Luke Dotta, Leisa Faulkner, Beth Gullett, Ken Hart, Zaman Khan, Tiffany King, Jeneba Lahai, Erika Larson, Michael Nicholla, Justin Owens, Ashley Phillips, Aaron Pina, Latoya Reed, Derek Reese, Maribel Rosendo-Servin, Joey Saragoza, Jamie Snyder, Dominique Vaccaro, and Dr. Kevin Wehr

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Department of Sociology
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