

**SUPERSTORM SANDY SURVEY:  
IMPACT ON NEW JERSEY COASTAL RESIDENTS**

**Monmouth University Polling Institute**

*in partnership with*

**Jersey Shore Partnership Foundation**

**Urban Coast Institute, Monmouth University**

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# **SUPERSTORM SANDY SURVEY: IMPACT ON NEW JERSEY COASTAL RESIDENTS**

## **SUMMARY**

Superstorm Sandy's impact on coastal communities in New Jersey was unprecedented. This survey, conducted by the Monmouth University Polling Institute in conjunction with the New Jersey Shore Partnership Foundation and Monmouth University's Urban Coast Institute, was undertaken to establish the full extent of the impact on the state's coastal residents, their understanding of the rebuilding process, and their opinions on proposed policies to create a more resilient shoreline.

The telephone survey was conducted in late February 2013 with 501 New Jerseyans who live within one mile of the coastline, from the northern shore counties of Monmouth and Ocean to the southern shore of Atlantic and Cape May.

### **Storm Preparations and Impact**

Most New Jersey coastal residents were caught off guard by the strength of Superstorm Sandy, with 62% saying it was more serious than expected. About half of New Jersey's coastal residents (49%) expect that a similar storm will occur sometime in the next ten years. Only 26% say Sandy was a once in a lifetime event.

Seven-in-ten coastal residents (71%) report that they were either ordered or advised to evacuate before the storm, but only 34% actually did. Another 7% left while the storm was underway and 5% had to leave after the storm passed. Overall, 47% of coastal residents who live in a Sandy evacuation area say they are now more likely to heed future evacuation warnings, while 10% are less likely to do so.

More than half (56%) of New Jersey coastal residents report that their home or business suffered damage from Sandy. Nearly 1-in-10 of these residents report that their property was totaled, i.e. that the loss exceeded half of their home's pre-storm value.

Six-in-ten Jersey Shore residents (61%) report that they have fully recovered from Sandy. This compares to 77% of New Jersey residents statewide who say the same. Ten percent of coastal residents say it will take them about a year to recover fully, 4% say it will take longer, and 3% feel they will never fully recover.

Five percent of coastal residents are not currently in the same home they lived in before Sandy hit. Reports of home displacement are higher in Ocean County (11%) than in Monmouth County (6%) or along the southern shore (3%).

Only 30% of homeowners with damaged properties say that they expect all or most of their losses to be covered by insurance. Another 23% say some amount will be covered while 26% say nothing will be covered. Despite Sandy's devastating impact, most coastal homeowners

(59%) say they would never consider selling their property to the town or county to be turned into open space.

## **Flood Zone Guidelines**

Just over half of New Jersey coastal homeowners (53%) report that they carry a federal flood insurance policy on their property. It is worth noting that a 2007 survey of New Jersey coastal residents found that 69% of homeowners reported carrying flood insurance. The higher coverage prevalence reported in the prior poll may reflect an inaccurate assessment among some homeowners that they were indeed covered for flood damage.

Just over one-third (36%) of coastal residents report that they live in a designated pre-Sandy flood zone while 41% report that they do not. Tellingly, nearly 1-in-4 (23%) coastal residents say they are unsure whether their home is in a flood zone.

Confusion over designated flood zones has only grown with the post-storm release of FEMA's Advisory Base Flood Elevation (ABFE) maps. As of late February 2013, just 22% of coastal homeowners had a very good understanding of how these guidelines would affect them and another 24% say they understand the proposed ABFE maps somewhat well. As a result, 22% of coastal homeowners believe they would be required to elevate their homes if they were to rebuild and 39% are unsure about this.

New Jersey coastal homeowners were asked whether they would consider elevating their house if their property was included in a new flood zone. Just under half say they would definitely (18%) or probably consider (26%) doing this. However, more would consider it if the out-of-pocket costs are low or the savings on annual flood insurance turned out to be significant.

## **Coastal Protection and Rebuilding Policies**

Most New Jersey coastal residents (59%) feel that current efforts to protect their local waters and beaches are about right. Another 30% feel that not enough is being done and just 5% say there is too much emphasis on coastal protection. These results are statistically similar to a pre-Sandy poll conducted in 2009. Two-thirds of residents who had no damage from Sandy (66%) and 6-in-10 of those with some damage (59%) feel current efforts have been about right. However, just 43% of those with significant home damage feel the same, compared to 43% of this group who say there has been too little effort.

A majority of coastal residents (56%) say that government should handle most of the costs for projects to reduce damage from future storms and other coastal hazards. Another 20% say that coastal property owners should be primarily responsible. These results are similar to pre-Sandy polls conducted in 2007 and 2009.

Even though coastal residents feel that government should handle the cost of hazard reduction projects, a majority (55%) say they would support an increase in local taxes to fund these efforts. This finding is also similar to pre-Sandy poll results.

Nearly 9-in-10 coastal residents (89%) are in favor of requiring stricter storm-resistant building codes in areas affected by Sandy and 8-in-10 residents (83%) favor a continual beach replenishment program. Three-in-four residents (76%) specifically say that beaches should be replenished when they are washed away by a storm, which is higher than the 66% who said the same in 2009.

Fully 8-in-10 residents support building bulkheads, jetties, seawalls and other hard structures (82%), as well as sand dunes and other natural features that may block ocean views (80%). However, residents are divided on whether towns should be allowed to require easements from private property owners to accomplish this – 42% say that towns should have this power and 33% say that individual homeowners should be allowed to decide. Support for giving towns the authority to require easements is much higher among Ocean County residents (62%) than it is among those in Monmouth County (35%) or along the southern shore (40%).

Similarly, 79% of coastal residents support using tax dollars to restore existing wetlands and bays to better absorb storm surges and flooding. In general, 72% of New Jersey coastal residents support the public purchase of existing natural coastal areas for conservation purposes.

About 3-in-4 coastal residents (74%) support allowing beachfront homeowners to rebuild only if they agree to have dunes or sea walls placed in front of their property even if it blocks their ocean view. Support is particularly widespread among those who would be impacted the most – waterfront home dwellers (82%).

Seven-in-ten coastal residents (71%) support creating a state commission to coordinate planning and rebuilding along the shore. Nearly 2-in-3 coastal residents (64%) also support giving towns the right to impose a short-term moratorium on rebuilding in high risk areas. And more than 6-in-10 coastal residents (62%) support policies that would prevent any new construction or development in high flood-risk areas.

A majority of coastal residents (55%) support allowing state regulators to determine which areas of the shore can or cannot be rebuilt based on storm risk, while 40% of coastal residents oppose giving state regulators this power.

Fewer than half (47%) of coastal residents support using government funds from the “Blue Acres” program to buy private property in high risk areas. Another 35% oppose this proposal and 18% are unsure. Among coastal residents, waterfront property dwellers (60%) are more supportive of this type of program. In general, only 41% of New Jersey coastal residents support the idea of public purchase of private homes located in high risk areas regardless of the funding source.

# **SUPERSTORM SANDY SURVEY: IMPACT ON NEW JERSEY COASTAL RESIDENTS**

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# **SUPERSTORM SANDY SURVEY: IMPACT ON NEW JERSEY COASTAL RESIDENTS**

## **I. Introduction**

Superstorm Sandy was an unprecedented event for the State of New Jersey. The impact was widespread, leaving two-thirds of Garden State homes without power, some for as long as two weeks. No place, collectively, was hit as hard as the Jersey Shore. Sandy's aftermath raised numerous questions about how quickly affected residents would be able to recover as well as the best policies for rebuilding shore communities.

This unique study, conducted by the Monmouth University Polling Institute in conjunction with the New Jersey Shore Partnership Foundation and Monmouth University's Urban Coast Institute, was undertaken to establish the full extent of the impact on New Jersey's coastal residents, their understanding of the rebuilding process, and their opinions on policies to create a more resilient shoreline.

The survey was conducted by telephone with 501 residents of New Jersey communities who live within one mile of the coastline, from the northern shore counties of Monmouth and Ocean to the southern shore of Atlantic and Cape May. The full results of this survey have a sampling margin of error of +/- 4.4% and can be found in the appendix.

## **II. Storm Preparations**

Most New Jersey coastal residents were caught off guard by the strength of Superstorm Sandy. Overall, 62% say it was more serious than expected. Just 18% say it was less serious and 20% say it was about as serious as they anticipated. Residents of the state's northern shore (69%) are a little more likely than those along the southern coast (55%) to report being surprised by the storm's intensity.

About half of New Jersey's coastal residents (49%) expect that a similar storm will occur sometime in the next ten years. Only 26% say Sandy was a once in a lifetime event. However, it is worth noting that those who experienced the most damage to their property (35%) are more likely than those who suffered no damage (24%) to believe that they will never see a storm of this magnitude again.

About four-in-ten coastal residents (41%) report that they will do more to prepare for the next big storm, while a majority (57%) say they will probably do about the same level of preparations as they did for Sandy. Ocean (51%) and Monmouth (46%) coastal residents are more likely than those living along the southern shore (34%) to report that they will do more to prepare for the next storm.

<b>Superstorm Sandy Preparation and Expectations</b>							
	<b>More serious than expected</b>	<b>Less serious than expected</b>	<b>Once in a lifetime storm</b>	<b>Will recur again in next ten years</b>	<b>Evacuated home before storm</b>	<b>Evacuated home during or after</b>	<b>Will do more to prepare next time</b>
<b>TOTAL</b>	<b>62%</b>	<b>18%</b>	<b>26%</b>	<b>49%</b>	<b>34%</b>	<b>12%</b>	<b>41%</b>
<u>County</u>							
Monmouth	68	10	25	54	20	14	46
Ocean	72	10	26	54	24	14	51
Atlantic/Cape May	55	26	26	45	45	10	34
<u>Distance from Water</u>							
Waterfront property	77	8	31	47	49	12	35
Within a few blocks	62	17	26	46	42	10	42
Within one mile	55	24	23	56	12	14	42
<u>In a Flood Zone</u>							
Yes	64	20	30	46	39	13	45
No	58	14	26	50	25	9	38
Unsure	65	22	18	53	41	16	38
<u>Damage to Home</u>							
None	59	21	24	51	29	7	37
Some	62	16	30	43	34	9	41
Significant	63	11	35	43	38	19	44
<u>Annual Income</u>							
Under \$50,000	59	22	24	54	40	8	40
\$50-100,000	64	15	19	51	24	14	41
Over \$100,000	60	15	39	44	34	8	39
<b>NEW JERSEY STATEWIDE:</b>							
Dec. 2012	62%	10%	18%	59%	n/a	n/a	43%*

\* Statewide comparison from Feb. 2013

Nearly half of New Jersey's coastal residents report that they left their homes because of Sandy, including 34% who evacuated before the storm hit, 7% who left while the storm was underway, and 5% who had to leave after the storm had passed. Southern shore residents (45%) are more likely than those along the northern coast (22%) to report they evacuated in advance of the storm. Overall, 61% of waterfront property residents and 52% of those who live within a few

blocks of the water had to leave their home at some point before, during or after the storm, compared to just 26% of those who live farther away.

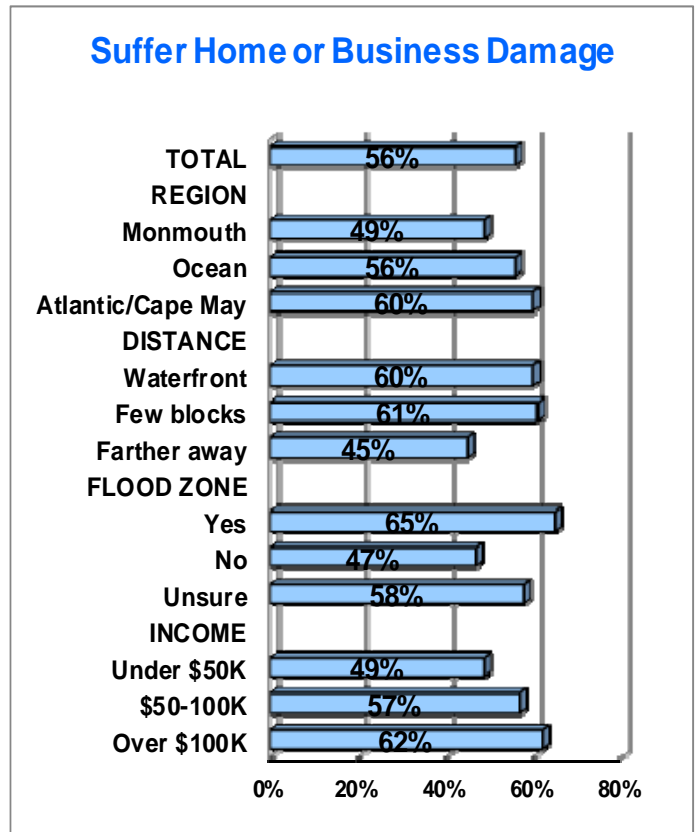
While 34% of coastal residents evacuated before the storm, twice that number (71%) report that they were advised to evacuate, including 54% who say their area was under a mandatory evacuation order. Among residents living in a mandatory evacuation area, barely half (49%) report having left home before the storm, while another 9% left as the storm was underway. Another 2% left after the storm passed and 40% stayed put throughout the storm and its aftermath.

Overall, 47% of coastal residents who live in a Sandy evacuation area say they are more likely to heed future evacuation warnings, while 10% are now less likely to do so. Among those who actually evacuated before the storm, 47% say they would be even more likely to evacuate next time and just 3% say they would be less likely. Among those who stayed in their homes the entire time, 40% say they would now be more likely to evacuate if the order was given in another storm, 18% would be even less likely and 40% say they would be about as likely – presumably meaning they wouldn’t heed the evacuation warning next time either.

### III. Sandy’s Impact

More than half (56%) of New Jersey coastal residents report that their home or business suffered damage from Sandy. This includes nearly two-thirds (65%) of those living in a current flood zone.

Southern shore residents (60%) are somewhat more likely than Ocean (56%) or Monmouth (49%) residents to report suffering at least some damage. However, this is most likely due to the fact that the vast majority are barrier island homes within a few blocks of the waterline. When asked to estimate their total losses incurred, 39% of Ocean County residents with home damage say the loss exceeds \$25,000.





This compares to 26% of southern shore residents and 14% in Monmouth County who suffered similar losses. Overall, 8% of shore residents with damage to their homes report that their property was totaled, i.e. that the loss exceeded half of their home's pre-storm value.

The main cause of damage to coastal property due to Sandy was flooding (71%). A majority (56%) of damaged properties also suffered wind damage, while 29% suffered losses due to power outages, 16% due to falling trees or other debris, and 3% due to fire.

<b>Cause of Damage</b> <i>(among those who suffered property damage)</i>					
<i>Multiple responses possible</i>	<b>Flooding</b>	<b>Wind</b>	<b>Power outage</b>	<b>Falling trees/debris</b>	<b>Fire</b>
<b>TOTAL</b>	<b>71%</b>	<b>56%</b>	<b>29%</b>	<b>16%</b>	<b>3%</b>
<u>County</u>					
Monmouth	45	64	44	25	3
Ocean	63	56	26	22	1
Atlantic/Cape May	86	53	22	9	3
<u>Distance from Water</u>					
Waterfront property	89	36	22	9	4
Within a few blocks	77	58	27	10	1
Within one mile	48	65	37	35	5
<u>In a Flood Zone</u>					
Yes	78	50	28	12	3
No	57	67	29	23	5
Unsure	80	54	31	13	0
<u>Damage to Home</u>					
None	93	41	27	0	0
Some	54	65	30	19	4
Significant	93	50	18	10	2
<u>Annual Income</u>					
Under \$50,000	70	59	20	13	7
\$50-100,000	77	58	29	12	2
Over \$100,000	67	61	27	18	0

Six-in-ten Jersey Shore residents (61%) report that they have fully recovered from Sandy. Another 31% have partially recovered, 4% have barely recovered and 4% have not recovered at all. Statewide, more New Jersey residents report having fully recovered (77%) from the storm, but a similar number are no more than barely recovered (9%) when compared just to coastal residents. Waterfront property owners are the least likely to be fully recovered (45%), but no more likely to be only barely recovered (10%). Nearly half of waterfront homeowners (46%) say they are at least partially recovered.

Among coastal residents who suffered significant damage to their homes – defined as at least \$10,000 in losses – only 15% have fully recovered, 60% have partially recovered, and 25% have recovered just barely or not at all. Among residents with damaged homes who carried flood insurance before the storm, the picture isn't much better. Only one-quarter (25%) of this group has fully recovered, 53% have partially recovered, and 22% have recovered just barely or not at all.

<b>Recovery from Storm</b>				
	<b>Fully, no impact</b>	<b>Partially</b>	<b>Barely</b>	<b>Not at all</b>
<b>TOTAL</b>	<b>61%</b>	<b>31%</b>	<b>4%</b>	<b>4%</b>
<u>County</u>				
Monmouth	63	32	4	2
Ocean	55	30	6	9
Atlantic/Cape May	61	31	3	5
<u>Distance from Water</u>				
Waterfront property	45	46	5	5
Within a few blocks	60	31	3	7
Within one mile	70	24	4	1
<u>In a Flood Zone</u>				
Yes	54	30	6	10
No	69	28	2	1
Unsure	57	38	3	2
<u>Damage to Home</u>				
None	85	12	1	2
Some	53	44	2	0
Significant	15	60	11	14
<u>Annual Income</u>				
Under \$50,000	63	32	2	3
\$50-100,000	54	34	9	4
Over \$100,000	65	30	2	3
<b>NEW JERSEY STATEWIDE:</b>				
<i>Feb. 2013</i>	<i>77%</i>	<i>14%</i>	<i>4%</i>	<i>5%</i>

In addition to the 61% of New Jersey coastal residents who have fully recovered, 21% expect that they will be back to normal in the next few months. Another 10% say it will take about a year to recover, 4% say it will take longer, and 3% feel they will never fully recover. Also, 5% of coastal residents report that they are not currently in the same home they lived in before Sandy hit. Reports of home displacement are higher in Ocean County (11%) than in Monmouth County (6%) or along the southern shore (3%).

Despite Sandy's devastating impact, most coastal homeowners (59%) say they would never consider selling their property to the town or county to be turned into open space. Just 16% say they would definitely consider doing so and 15% would probably consider this. There is little difference in this sentiment regardless of whether or not homeowners suffered property losses or the extent of those losses.

#### **IV. Flood Zone Guidelines**

Only 30% of homeowners with damaged properties say that they expect all or most of their losses to be covered by insurance. Another 23% say some amount will be covered while 26% say none will be covered. Another 5% report having no insurance and 17% don't know how much will be covered. Among those who suffered losses of at least \$10,000, 43% expect all or most of their losses will be covered. This compares to just 21% of those who suffered less severe damage who expect insurance to cover most of the loss.

Just over half of New Jersey coastal homeowners (53%) report that they carry a federal flood insurance policy on their property. It is worth noting that a 2007 survey of New Jersey coastal residents found that 69% of homeowners reported carrying flood insurance. The higher coverage prevalence reported in the prior poll may reflect an inaccurate assessment among some homeowners that they were indeed covered for flood damage. Reports of current flood insurance coverage includes 75% of waterfront homeowners and 67% of those who live within a few blocks of the water, but just 19% of those who live farther away.

Just over one-third (36%) of coastal residents report that they live in a designated pre-Sandy flood zone while 41% report that they do not. Tellingly, nearly 1-in-4 (23%) coastal residents say they are unsure whether their home is in a flood zone. This lack of awareness is similar among homeowners (20%) and renters (29%) as well as among those who live at different distances from the shoreline; including on the waterfront (20%), within a few blocks of the water (24%), and farther away (21%).

Confusion over designated flood zones has only grown with the post-storm release of FEMA's Advisory Base Flood Elevation (ABFE) maps. These guidelines are still under review, but as of late February 2013, 29% of coastal residents had heard a lot about them, 41% had heard a little, and 30% had heard nothing at all.

<b>Heard of FEMA Advisory Base Flood Elevations</b>			
	<b>A lot</b>	<b>A little</b>	<b>Not at all</b>
<b>TOTAL</b>	<b>29%</b>	<b>41%</b>	<b>30%</b>
<u>County</u>			
Monmouth	22	45	32
Ocean	36	41	23
Atlantic/Cape May	31	38	31
<u>Distance from Water</u>			
Waterfront property	41	45	13
Within a few blocks	28	42	30
Within one mile	25	38	37
<u>In a Flood Zone</u>			
Yes	29	38	33
No	33	39	27
Unsure	20	50	30
<u>Damage to Home</u>			
None	26	44	30
Some	31	31	38
Significant	42	44	13
<u>Annual Income</u>			
Under \$50,000	14	46	40
\$50-100,000	38	34	27
Over \$100,000	37	37	27

Just 22% of coastal homeowners say they have a very good understanding of how these guidelines would affect their own properties and another 24% say they understand the proposed ABFE maps somewhat well. As a result, 22% of coastal homeowners believe they would be required to elevate their homes if they were to rebuild while 39% feel they would not be impacted by the new guidelines. The remaining homeowners are either unsure whether they would need to elevate (13%) or are unaware of the guidelines (26%).

The new guidelines define expanded flood zones as well as the height homes must be built in those zones to qualify for flood insurance. Based on this description or what they may have already heard, 46% of coastal residents say the guidelines are about right, 27% say they are too strict, and 4% say they are not strict enough. Among those who have heard a lot about the proposed ABFE, though, 47% say they are about right and a similar 46% say they are too strict. Waterfront property owners overall are also split between seeing the guidelines as appropriate (41%) or too strict (40%). Among residents who suffered significant damage to their homes, more (44%) say the guidelines are too strict than say they are about right (27%).

<b>Opinion of FEMA Flood Elevation Guidelines</b>				
	<b>About right</b>	<b>Too strict</b>	<b>Not strict enough</b>	<b>Don't know</b>
<b>TOTAL</b>	<b>46%</b>	<b>27%</b>	<b>4%</b>	<b>23%</b>
<u>County</u>				
Monmouth	54	17	5	24
Ocean	54	27	3	16
Atlantic/Cape May	38	34	3	25
<u>Distance from Water</u>				
Waterfront property	41	40	1	19
Within a few blocks	46	28	3	22
Within one mile	46	20	7	27
<u>In a Flood Zone</u>				
Yes	43	31	5	21
No	47	28	3	22
Unsure	48	20	3	30
<u>Damage to Home</u>				
None	57	19	2	22
Some	40	32	3	25
Significant	27	44	1	27
<u>Annual Income</u>				
Under \$50,000	51	17	5	26
\$50-100,000	42	32	2	24
Over \$100,000	44	36	2	19

New Jersey coastal homeowners were asked whether they would consider elevating their house if their property was included in a stricter flood zone. Just under half say they would definitely (18%) or probably consider (26%) doing this. Waterfront property owners (23%) are the least likely to consider elevating their property if the flood zone map changed, compared to those who live within a few blocks of the shoreline (45%) or farther away (51%).

The survey also asked coastal property owners whether they would consider elevating their homes in light of both potential construction costs and insurance savings. Ten percent would consider elevating their homes if their out-of-pocket cost was \$50,000, 21% would consider doing so if the cost was about \$25,000, and 21% would only consider this at a lower cost. However, nearly half (45%) would consider elevating their home if they could save \$3,000 a year on flood insurance coverage and another 22% would consider doing so if they saved about \$25,000 a year.

## V. Coastal Protection and Rebuilding Policies

Most New Jersey coastal residents (59%) feel that current efforts to protect their local coastal waters and beaches are about right. Another 30% feel that not enough is being done and just 5% say there is too much emphasis on coastal protection. These results are slightly more positive than in 2009, when 53% said the right amount was being done to protect the local coast, 36% said too little was being done, and 9% said too much was being done. However, these differences are not statistically significant.

Majorities of southern shore (64%) and Monmouth County (56%) residents feel that coastal protection efforts are about right, but Ocean County residents are split – 46% feel current efforts are about right and 42% say they are not enough. Having suffered property damage from Sandy colors residents’ views on the state of local coastal protection. Two-thirds of residents who had no damage (66%) and 6-in-10 of those with some damage (59%) feel current efforts have been about right. However, just 43% of those with significant home damage feel the same, compared to 43% of this group who say there has been too little effort.

<b>Rate Efforts to Protect Coast</b>				
	<b>About right</b>	<b>Too little</b>	<b>Too much</b>	<b>Don't know</b>
<b>TOTAL</b>	<b>59%</b>	<b>30%</b>	<b>5%</b>	<b>6%</b>
<u>County</u>				
Monmouth	56	31	3	9
Ocean	46	42	4	7
Atlantic/Cape May	64	25	6	5
<u>Distance from Water</u>				
Waterfront property	52	36	6	7
Within a few blocks	61	26	6	6
Within one mile	57	34	3	7
<u>In a Flood Zone</u>				
Yes	59	30	7	3
No	60	32	3	5
Unsure	57	25	5	14
<u>Damage to Home</u>				
None	66	24	5	5
Some	59	32	4	5
Significant	43	43	4	10
<u>Annual Income</u>				
Under \$50,000	66	22	3	9
\$50-100,000	59	28	4	9
Over \$100,000	50	41	7	2
<b>COASTAL TRENDS:</b>				
2009	53%	36%	9%	2%

When it comes to the question of paying for projects that would reduce damage from storms and other coastal hazards, a majority (56%) of coastal residents say that government should handle most of the costs. Another 20% say that coastal property owners should be primarily responsible and 20% volunteer that both government and property owners should share equally in the costs. The number of New Jersey coastal residents who say that government should be primarily responsible for funding these projects is up slightly, albeit not significantly, from polls conducted prior to Sandy in 2009 (49%) and 2007 (50%).

<b>Who Should Pay for Coastal Hazard Reduction</b>				
	<b>Government</b>	<b>Property owners</b>	<b>Both equally</b>	<b>Don't know</b>
<b>TOTAL</b>	<b>56%</b>	<b>20%</b>	<b>21%</b>	<b>3%</b>
<u>County</u>				
Monmouth	49	28	19	4
Ocean	52	17	28	4
Atlantic/Cape May	62	16	20	3
<u>Distance from Water</u>				
Waterfront property	63	15	16	5
Within a few blocks	54	20	23	4
Within one mile	56	22	20	2
<u>In a Flood Zone</u>				
Yes	64	19	16	1
No	46	23	24	7
Unsure	60	15	25	0
<u>Damage to Home</u>				
None	54	22	22	2
Some	57	16	23	4
Significant	55	18	18	9
<u>Annual Income</u>				
Under \$50,000	51	19	28	2
\$50-100,000	57	19	19	5
Over \$100,000	56	23	16	4
<b>COASTAL TRENDS:</b>				
2009	49%	31%	12%	8%
2007	50%	23%	22%	5%

Even though coastal residents feel that government should handle the cost of hazard reduction projects, a majority (55%) say they would support an increase in local taxes to fund these efforts. Another 35% would oppose such tax increases. Support levels are fairly similar across all demographic groups in the survey, although it is worth noting that the number who “strongly” support a tax increase to fund storm protection measures (29%) is similar to the

number who “strongly” oppose (23%). Interestingly, the current survey results are very similar to findings from a pre-Sandy poll of New Jersey coastal residents in 2009 when 59% supported an increase in local taxes to fund coastal protection efforts.

<b>Coastal Protection Preferences</b>							
<b>Percent who support</b>	<b>Protection efforts even if local taxes go up</b>	<b>Bulkheads, seawalls and hard structures</b>	<b>Dunes w/ocean views restricted</b>	<b>Replenish beaches after storms</b>	<b>Conserve natural coastal areas</b>	<b>No development in high risk areas</b>	<b>Public purchase of private homes</b>
<b>TOTAL</b>	<b>55%</b>	<b>82%</b>	<b>80%</b>	<b>76%</b>	<b>72%</b>	<b>62%</b>	<b>41%</b>
<u>County</u>							
Monmouth	60	81	76	72	76	73	43
Ocean	55	81	93	74	77	61	45
Atlantic/Cape May	53	83	79	79	68	56	38
<u>Distance from Water</u>							
Waterfront property	58	88	79	73	69	59	32
Within a few blocks	58	81	78	77	74	64	42
Within one mile	52	81	86	76	71	62	42
<u>In a Flood Zone</u>							
Yes	55	86	83	79	76	62	41
No	58	79	80	74	66	61	39
Unsure	51	79	76	75	76	65	42
<u>Damage to Home</u>							
None	52	79	82	75	73	60	42
Some	62	81	85	81	70	76	45
Significant	54	82	74	68	70	55	38
<u>Annual Income</u>							
Under \$50,000	56	83	80	80	68	55	38
\$50-100,000	50	78	83	73	67	62	38
Over \$100,000	64	80	85	79	83	70	52
<b>COASTAL TRENDS:</b>							
2009	59%	69%	72%*	66%	77%	61%	27%

\* This trend is from 2007.

The survey also asked about support for specific policies to protect the coast. Fully 8-in-10 residents support building bulkheads, jetties, seawalls and other hard structures (82%), as well as sand dunes and other natural features that may block ocean views (80%). This is not too different from the 90% who support dunes and natural buffers that don’t restrict ocean views. The survey found “strong” levels of support from a majority of residents for both hard structures (53%) and natural buffers that restrict views (57%).

While most residents support the idea of building natural buffers that restrict ocean views, they are more divided on whether towns should be allowed to require easements from private



property owners to accomplish this. Overall, 42% say that towns should have this power, 33% say that individual homeowners should be allowed to decide whether they agree to this, and 9% are unsure. The remaining 16% are opposed to building view-restricting dunes at all. Support for giving towns the authority to require easements is much higher among Ocean County residents (62%) than it is among those in Monmouth County (35%) or along the southern shore (40%).

<b>Easements for View Restricting Sand Dunes</b>				
	<b>Towns should be able to require</b>	<b>Homeowners should be allowed to decide</b>	<b>Depends, Don't know</b>	<b>Oppose view restricting dunes</b>
<b>TOTAL</b>	<b>42%</b>	<b>33%</b>	<b>9%</b>	<b>16%</b>
<u>County</u>				
Monmouth	35	38	5	22
Ocean	62	24	9	5
Atlantic/Cape May	40	33	12	16
<u>Distance from Water</u>				
Waterfront property	48	29	3	20
Within a few blocks	39	34	10	17
Within one mile	46	32	11	12
<u>In a Flood Zone</u>				
Yes	41	39	3	17
No	43	29	13	14
Unsure	42	28	13	17
<u>Damage to Home</u>				
None	41	34	9	17
Some	46	33	12	8
Significant	48	24	11	18
<u>Annual Income</u>				
Under \$50,000	40	37	6	16
\$50-100,000	45	28	18	10
Over \$100,000	50	30	6	14

The survey also found that 76% of residents feel beaches should be replenished when they are washed away by a storm, compared to just 18% who say they should be left as is. Support for this policy is higher than four years ago, when 66% said post-storm beach replenishment should be a general policy. There are no demographic differences in opinion on the beach replenishment question in the current survey.

The survey also found widespread support for the public purchase of existing natural coastal areas in order to preserve them – 72% of New Jersey coastal residents would support such a policy, including 46% who strongly support it. There are few significant demographic

differences in these support levels, with the exception that upper income residents are the most supportive (83%) of any group.

More than 6-in-10 coastal residents (62%) support policies that would prevent any new construction or development in high flood-risk areas, including 41% who strongly support this idea. Support for this restriction is highest among Monmouth County residents (73%) and lowest among southern shore residents (56%). Support from Ocean County residents (61%) falls in between these two.

One policy idea that does not attain majority support is the public purchase of private homes located in high risk areas. Only 41% of New Jersey coastal residents support this idea, including 19% who strongly support it. More residents (50%) actually oppose this potential policy, including 34% who strongly oppose it. Waterfront residents (32%) are even less likely than other coastal residents (42%) to support the private purchase of homes in high risk areas. However, those earning more than \$100,000 a year (52%) tend to support this idea when compared to residents with lower annual income levels (38%).

The survey also asked coastal residents their opinions on eight possible Sandy-related proposals and regulations that were included on a statewide poll of New Jersey residents in December 2012. Coastal resident support levels for most of these proposals tend to be about the same or slightly higher than in the statewide poll.

Nearly 9-in-10 coastal residents (89%) are in favor of requiring stricter storm-resistant building codes in areas affected by Sandy, including 67% who strongly support this proposal. Statewide, 87% of New Jerseyans support stricter building codes in affected areas.

About 8-in-10 residents (83%) also favor a continual beach replenishment program, including 57% who strongly support this. Statewide, 74% of New Jerseyans support regular beach replenishment.

Similarly, 79% of coastal residents support using tax dollars to restore existing wetlands and bays to better absorb storm surges and flooding, including 48% who strongly support this. Statewide, 80% of New Jerseyans favor this proposal.

About 3-in-4 coastal residents (74%) support allowing beachfront homeowners to rebuild only if they agree to have dunes or sea walls placed in front of their property even if the ocean view is blocked. This includes 53% who strongly support this requirement. Coastal residents' support for this proposal is actually slightly higher than the statewide support level of 68%.

Support is particularly widespread among those who would be impacted the most – waterfront home dwellers (82%). Regionally, coastal residents in Ocean County (85%) are even more supportive of this requirement than those in Monmouth County (69%) or the southern shore (73%).

<b>Opinion on State Rebuilding Policies</b>								
<b>Percent who support</b>	<b>Stricter codes in affected areas</b>	<b>Continue beach replenishment</b>	<b>Restore wetlands storm buffers</b>	<b>Home rebuild only with dunes</b>	<b>Create state coastal commission</b>	<b>Towns can impose moratorium</b>	<b>State regulators determine rebuild areas</b>	<b>Purchase high risk private property</b>
<b>TOTAL</b>	<b>89%</b>	<b>83%</b>	<b>79%</b>	<b>74%</b>	<b>71%</b>	<b>64%</b>	<b>55%</b>	<b>47%</b>
<u>County</u>								
Monmouth	91	77	81	69	67	63	57	46
Ocean	93	84	82	85	74	72	59	58
Atlantic/Cape May	87	86	74	73	72	61	53	44
<u>Distance from Water</u>								
Waterfront property	87	80	74	82	68	50	52	60
Within a few blocks	88	86	79	71	67	65	51	45
Within one mile	91	79	78	75	78	66	63	44
<u>In a Flood Zone</u>								
Yes	93	83	85	73	75	62	54	49
No	88	82	72	77	67	66	56	43
Unsure	86	85	77	68	69	59	53	48
<u>Damage to Home</u>								
None	92	79	76	71	74	64	59	48
Some	84	90	80	76	75	69	50	49
Significant	84	82	74	73	52	52	38	49
<u>Annual Income</u>								
Under \$50,000	87	82	71	72	75	61	58	39
\$50-100,000	86	83	77	74	66	63	54	50
Over \$100,000	91	82	89	74	67	68	48	59
<b>NEW JERSEY STATEWIDE:</b>								
Dec. 2012	87%	74%	80%	68%	72%	69%	66%	43%

Seven-in-ten coastal residents (71%) support creating a state coastal commission to coordinate planning and rebuilding along the shore, including 42% who strongly support this idea. Statewide support for establishing such a commission is nearly identical at 72%. Nearly 2-in-3 coastal residents (64%) also support giving towns the right to impose a short-term moratorium on rebuilding in high risk areas, including 33% who strongly support this. Statewide support for this proposal stands at 69%.

A majority of coastal residents (55%) support allowing state regulators to determine which areas of the coast can or cannot be rebuilt based on storm risk, including 27% who strongly support this. However, 40% of coastal residents oppose giving state regulators this power. Statewide support for this proposal (66%) is higher than coastal support.

It is worth noting that homeowners who suffered significant damage to their property (52%) are less likely than those who suffered only some (75%) or no damage (74%) to support the creation of a state coastal commission to coordinate rebuilding. They are similarly less likely to support allowing towns to impose building moratoriums – 52% with significant damage support this compared to 69% with some damage and 64% with no damage. This difference in opinion holds for allowing state regulators to determine rebuilding areas – there is 38% support among those with significant property damage compared to 50% with some damage and 59% with no damage.

Finally, fewer than half (47%) of coastal residents support using government funds from the “Blue Acres” program to buy private property in high risk areas, including 25% who strongly support this. Another 35% oppose this proposal and 18% are unsure. Statewide, a similar 43% of New Jersey residents support this type of property purchase program, 37% are opposed and 20% are unsure. Among coastal residents, waterfront dwellers (60%) are much more supportive of this type of program than are those who live within a few blocks of the shoreline (45%) or farther away (44%).

**APPENDIX:**  
***SURVEY METHODOLOGY***

The questionnaire for this survey was drafted by the Monmouth University Polling Institute (MUPI) research staff in consultation with issues and concerns raised by stakeholders in other research efforts. A unique aspect of this study is that the Polling Institute, in conjunction with Monmouth University's Urban Coast Institute, has conducted prior surveys of coastal residents that served as benchmarks for many of the questions in this survey.

The questionnaire was programmed into a CATI (Computer Assisted Telephone Interviewing) system and the interviews were conducted by telephone February 21-28, 2013 by experienced professional interviewers at Braun Research, Inc.

A random probability sample was used to select New Jersey coastal community heads of household to participate in this study. The sample was selected based on telephone exchanges that serve these coastal communities using census tract information, as well as from cell phone lists with billing addresses in the relevant zip codes. Residents living within one mile of the coastline were included in the survey sample. Thus, the final survey results represent the views of "permanent" residents of these communities, including some people who split their time fairly evenly between residences in these communities and elsewhere. The sample does not include people who maintain second or rental homes in these shore communities but primarily live elsewhere.

The sample was divided into three coastal regions defined by county: Monmouth, Ocean and Atlantic/Cape May. In order to statistically compare responses among regions, a unique sample was drawn for each region: 176 coastal residents from Monmouth County, 175 from Ocean County, and 150 from Atlantic/Cape May. Each working phone number was called a minimum of five times, at different times of the week, in an effort to reach people who were infrequently at home.

While those interviewed in a survey ideally will have the same characteristics as the population they represent, samples frequently may under-represent groups that are more difficult to interview, such as the elderly or those with less than a high school education. To correct this imbalance, a statistical technique known as "weighting" is used. The weighting procedure for

this survey compared population figures for age and education based on census data with those of the sample and weighted the sample to more accurately reflect the population. For example, if census figures show 39 percent of residents 18 years and older have a high school education, and the sample consists of 32 percent with a high school education, each respondent in this category would be counted as 1.22 persons to adjust for this difference.

Since the survey sample was drawn disproportionately from each region, the results were also adjusted to re-weight the regions to better represent their proportional share of the New Jersey coastal community population (as defined by this survey).

The percentages obtained in a sample survey are estimates of what the distribution of responses would be if the entire population had been surveyed. “Sampling error” is a statistical term which describes the probable difference between interviewing everyone in a given population and a sample drawn from that population. For example, the sampling error associated with a sample of this size is  $\pm 4.4$  percent at a 95 percent confidence interval. Thus, if 47 percent in the total sample of 501 are found to agree with a particular statement, the percentage of agreement within the population from which the sample was drawn would be between 42.6 and 51.4 percent ( $47 \pm 4.4\%$ ) 95 times out of 100.

Sampling error increases as the sample size is reduced. For, example, if statements are made based on a sub-group of 150 (as with the county samples), the sampling error is  $\pm 8.0$  percent. For percentages based on the smallest geographic areas ( $n=100$ ), the sampling error is  $\pm 9.8$  percent. This factor must be kept in mind when comparing the responses of different groups within the total sample. Readers should note that sampling error does not take into account other possible sources of error inherent in any study of public opinion.

The table on the following page shows the relationship between sample size and sampling error for key demographic groups in the report.

## Key demographic categories and associated margins of error

Demographic group	Proportion of weighted sample	Unweighted, unadjusted sample size	Maximum margin of error
Total sample	100%	501	+/- 4.4%
<u>County</u>			
Monmouth	32%	176	+/- 7.4%
Ocean	17%	175	+/- 7.4%
Atlantic/Cape May	51%	150	+/- 8.0%
<u>Distance from Water</u>			
Waterfront property	15%	86	+/- 10.6%
Within a few blocks	54%	236	+/- 6.4%
Within one mile	31%	179	+/- 7.3%
<u>In a Flood Zone</u>			
Yes	36%	170	+/- 7.5%
No	41%	240	+/- 6.3%
Unsure	23%	90	+/- 10.3%
<u>Damage to Home</u>			
None	53%	245	+/- 6.3%
Moderate	27%	117	+/- 9.1%
Severe	21%	106	+/- 9.5%
<u>Annual Income</u>			
Under \$50,000	41%	143	+/- 8.2%
\$50-100,000	28%	134	+/- 8.5%
Over \$100,000	30%	162	+/- 7.7%
<b>COMPARISON SURVEYS</b>			
<i>2009 coastal residents</i>	<i>n/a</i>	<i>248</i>	<i>+/- 6.2%</i>
<i>2007 coastal residents</i>	<i>n/a</i>	<i>299</i>	<i>+/- 5.7%</i>
<i>New Jersey statewide</i>	<i>n/a</i>	<i>816</i>	<i>+/- 3.4%</i>

### ***About the Polling Institute:***

The **Polling Institute** at Monmouth University is a full service research center that conducts surveys and focus group research for federal, state, and local agencies, as well as other organizations that cover social, political, and related issues of public policy. This is in addition to our mission of conducting public interest polls to track opinion on vital issues of the day.

The Monmouth University Polling Institute was established to be a leading center for the study of public opinion on important state, regional, and national issues. In its inaugural year, the institute was cited as a "Winner" by New Jersey Politifax for the accuracy of its polling in the 2005 gubernatorial election. In 2010 the institute was named New Jersey's Pollster of the Year by *PolickerNJ.com*. The Polling Institute conducts and disseminates public opinion research to foster greater public accountability by ensuring that the voice of the public is part of the policy discourse. The Polling Institute strives to go beyond the headlines to cover quality of life issues that affect residents in their daily lives.

The Polling Institute's activities include research services for government agencies and private organizations that assist with policy planning and assessment. The institute also collaborates with faculty and students to enhance research and training opportunities in survey research. The Polling Institute's research capabilities include: large and small-scale survey projects; telephone, mail, and in-person interview designs; quantitative data analysis; and qualitative research techniques such as focus group facilitation and analysis.

**SURVEY INSTRUMENT**

**New Jersey Coastal Communities  
Sandy Impact Survey**

**Monmouth University Polling Institute**

*on behalf of:*

**Jersey Shore Partnership Foundation  
Urban Coast Institute, Monmouth University**

**February 21-28, 2013 (n=501, m.o.e.=±4.4)**

**A. LIVING ON THE COAST**

A1. Do you own or rent the apartment or house where you lived when Superstorm Sandy hit? [IF "Rent", ASK: Was this rented as your permanent home?]

70% Own  
30 Rent – permanent home

A2. Is this home a waterfront property right on the beach or bay, within a few blocks of the beach or bay, within one mile?

15% Front a beach or bay  
54 Within a few blocks  
31 Within one mile

A3. How much of the year do you live in this home – 10 to 12 months, 6 to 9 months, or less than 6 months?

96% 10 to 12 months  
2 6 to 9 months  
2 Less than 6 months

A4. How many years have you lived in this town, or have you lived here all your life?

12% 5 years or less  
15 6 to 10 years  
23 11 to 20 years  
31 More than 20 years  
18 All my life



## B. COASTAL POLICY

B1. Do you think current efforts to protect coastal waters and beaches in your local area are too much, too little, or about right?

5% Too much  
30 Too little  
59 About right  
6 (VOL) Don't know/Refused

B2. Would you support or oppose efforts to protect the coastal waters, shoreline, and beaches in your town if it meant you would have to pay more in local taxes? [PROBE: Is that strongly or somewhat (support/oppose)?]

29% Strongly support  
26 Somewhat support  
12 Somewhat oppose  
23 Strongly oppose  
5 (VOL) Depends  
5 (VOL) Don't know/Refused

B3. In general, when beaches are washed away from a storm, should they be replenished with new sand or should they be left as is?

76% Replenished  
18 Left as is  
5 (VOL) Depends  
2 (VOL) Don't know/Refused

B4. I'm going to read you some possible ways to preserve coastal habitats and reduce storm damage. Please tell me whether you would support or oppose these efforts in your local area. [ITEMS WERE ROTATED] – Would you strongly support, somewhat support, somewhat oppose, or strongly oppose doing this in your local area?

A. Building bulkheads, jetties, seawalls and other hard structures?

53% Strongly support  
29 Somewhat support  
5 Somewhat oppose  
7 Strongly oppose  
4 (VOL) Depends  
1 (VOL) Don't know/Refused

B. Building sand dunes and other natural buffers?

71% Strongly support  
19 Somewhat support  
3 Somewhat oppose  
5 Strongly oppose  
1 (VOL) Depends  
2 (VOL) Don't know/Refused

C. Public purchase of existing natural coastal areas for preservation?

46% Strongly support  
26 Somewhat support  
8 Somewhat oppose  
13 Strongly oppose  
5 (VOL) Depends  
2 (VOL) Don't know/Refused

D. Public purchase of private homes located in high risk areas?

19% Strongly support  
22 Somewhat support  
16 Somewhat oppose  
34 Strongly oppose  
3 (VOL) Depends  
6 (VOL) Don't know/Refused

E. Preventing any new construction or development in high flood risk areas?

41% Strongly support  
21 Somewhat support  
14 Somewhat oppose  
17 Strongly oppose  
4 (VOL) Depends  
2 (VOL) Don't know/Refused

B5. Would you support or oppose building sand dunes and other natural features to protect your town's beaches, property, and people if it meant ocean views would be restricted? [*PROBE*: Is that strongly or somewhat (support/oppose)?]

57% Strongly support  
23 Somewhat support  
10 Somewhat oppose  
6 Strongly oppose  
2 (VOL) Depends  
2 (VOL) Don't know/Refused

B6. If some of these dunes need to be placed on privately owned waterfront property, should towns be able to require easements from those homeowners or should the individual homeowners be allowed to decide whether they will agree to this?

42% Towns should be able to require easements  
33 Individual homeowners should be allowed to decide  
3 (VOL) Depends  
6 (VOL) Don't know/Refused  
16 *Oppose dunes that block views (from Question B5)*

B7. Who should pay for most of the cost for projects designed to reduce damage from storms and other coastal hazards [*ITEMS WERE ROTATED*] – government OR coastal property owners?

56% Government  
20 Coastal property owners  
21 (VOL) Both equally  
3 (VOL) Don't know/Refused

B8. Do you strongly support, somewhat support, somewhat oppose, or strongly oppose the following proposals: [*ITEMS WERE ROTATED*]

A. Allowing beachfront homeowners to rebuild only if they agree to have dunes or sea walls placed in front of their property, even if it blocks their view of the ocean?

53% Strongly support  
21 Somewhat support  
10 Somewhat oppose  
11 Strongly oppose  
3 (VOL) Depends  
2 (VOL) Don't know/Refused

B. Allowing state regulators to determine which areas along the coast can or cannot be re-built based on storm risk?

27% Strongly support  
28 Somewhat support  
15 Somewhat oppose  
25 Strongly oppose  
4 (VOL) Depends  
1 (VOL) Don't know/Refused

- C. Using government funds from the “Blue Acres” program to buy private property in high risk areas of the shore?
- 25% Strongly support
  - 22 Somewhat support
  - 16 Somewhat oppose
  - 19 Strongly oppose
  - 4 (VOL) Depends
  - 14 (VOL) Don’t know/Refused
- D. Continuing to replenish the coast line with sand every few years?
- 57% Strongly support
  - 26 Somewhat support
  - 7 Somewhat oppose
  - 8 Strongly oppose
  - 1 (VOL) Depends
  - 1 (VOL) Don’t know/Refused
- E. Creating a state coastal commission to coordinate planning and rebuilding along the shore?
- 42% Strongly support
  - 29 Somewhat support
  - 10 Somewhat oppose
  - 17 Strongly oppose
  - 1 (VOL) Depends
  - 2 (VOL) Don’t know/Refused
- F. Giving towns the right to impose a short term moratorium on rebuilding in high risk areas?
- 33% Strongly support
  - 31 Somewhat support
  - 12 Somewhat oppose
  - 15 Strongly oppose
  - 3 (VOL) Depends
  - 5 (VOL) Don’t know/Refused
- G. Requiring stricter storm-resistant building codes in areas affected by the storm?
- 67% Strongly support
  - 22 Somewhat support
  - 6 Somewhat oppose
  - 3 Strongly oppose
  - 1 (VOL) Depends
  - 1 (VOL) Don’t know/Refused

H. Using tax dollars to restore existing wetlands and bays to better absorb storm surges and flooding?

48% Strongly support  
31 Somewhat support  
6 Somewhat oppose  
12 Strongly oppose  
2 (VOL) Depends  
3 (VOL) Don't know/Refused

### C. STORM PREPARATION

C1. Was Superstorm Sandy as serious as you expected it to be, more serious or less serious?

20% As serious as expected  
62 More serious  
18 Less serious  
0 (VOL) Don't know/Refused

C2. Do you think that this was a once in a lifetime storm – or do you think that this type of storm is likely to happen again in the near future?

26% Once in a lifetime  
69 Will occur in near future  
5 (VOL) Don't know/Refused

C2A. Do you think it will happen in the next year, the next five years, the next ten years, the next 25 years, or longer than that?

5% Next year  
25 Next five years  
19 Next ten years  
15 Next 25 years  
4 Longer than that  
26 *Once in a lifetime (from Question C2)*  
7 (VOL) Don't know/Refused

C3. Thinking about your own preparations for Sandy, the next time a big storm is predicted to hit New Jersey, will you do more to prepare, less to prepare, or about the same as you did to prepare for this storm?

41% More  
2 Less  
57 About the same  
1 (VOL) Don't know/Refused

C4. Did you ever evacuate or leave your home because of Sandy, or not?

46% Yes  
54 No

C4A. When did you leave your home – before the storm arrived, while the storm was actually underway, or after the storm had passed?

34% Before the storm arrived  
7 While the storm was actually underway  
5 After the storm had passed  
54 *Never evacuated (from Question C4)*

C5. Before the storm, were you in an area where people were ordered or advised to evacuate, or not?

71% Yes  
27 No  
2 (VOL) Don't know/Refused

C5A. Was that a mandatory order or just an advisory?

54% Mandatory  
14 Advisory  
4 (VOL) Don't know type of order  
27 *No order given (from Question C5)*  
2 *Don't know if order was given (from Question C5)*

[NOTE: Question C5B was asked of those ordered or advised to evacuate in C5; n=316, m.o.e.=± 5.5]

C5B. Will you be more likely, less likely, or about as likely to heed evacuation orders and advisories in future storms?

47% More likely  
10 Less likely  
41 About as likely  
3 (VOL) Don't know/Refused

#### **D. STORM IMPACT**

D1. Would you say your family has fully recovered from the storm, partially recovered, barely recovered, or not recovered at all?

57% Fully recovered  
31 Partially recovered  
4 Barely recovered  
4 Not at all recovered  
4 (VOL) No impact, nothing to recover from

D2. How long do you think it will take you to fully recover – within the next few weeks, within the next few months, within the next year, about 2 or 3 years, more than 3 years, or do you feel you will never fully recover?

61% *Already recovered/Nothing to recover from (from Question D1)*  
3 Next few weeks  
18 Next few months  
10 Next year  
4 2 or 3 years  
0 More than 3 years  
3 Never fully recover  
2 (VOL) Don't know/Refused

D3. Are you currently living in the same place you lived before Sandy hit?

95% Yes  
5 No

[NOTE: Question D3A was asked of those who said they are not living in the same place in D3; n=31, m.o.e=± 17.6]

D3A. When do you expect to be able to get back into your home – within the next six months, within a year, longer than that, or never?

60% Within the next six months  
10 Within a year  
1 Longer than that  
29 Never

D4. Did you have a federal flood insurance policy on your home or contents last year, or not?

40% Yes  
56 No  
4 (VOL) Don't know/Refused

D4A. Was that on your home's structure or contents, or both?

13% Structure only  
2 Contents only  
24 Both structure and contents  
2 (VOL) Don't know what is covered  
56 *No flood insurance (from Question D4)*  
4 (VOL) Don't know/Refused

D5. Did your home or business suffer damage because of the storm?

56% Yes  
44 No  
0 (VOL) Don't know/Refused

[NOTE: Questions D6 and D7 were asked of those who said their home or business suffered damage in D5;  $n=268$ ,  $m.o.e.=\pm 6.0$ ]

D6. Was the damage to your primary home, secondary home, business, or other income property? [Note: Results add to more than 100% because multiple responses were accepted]

91% Primary home  
4 Secondary home  
15 Business  
1 Other income property

D7. Was this damage caused by flood waters, wind, falling trees, fire, or power outages? [Note: Results add to more than 100% because multiple responses were accepted]

71% Flood waters  
56 Wind  
16 Falling trees  
3 Fire  
29 Power outages  
<1 (VOL) Rain

[NOTE: Questions D8 through D10 were asked of those who said their primary or secondary home suffered damage in D6;  $n=256$ ,  $m.o.e.=\pm 6.1$ ]

D8. What is your estimated total cost in damages and losses incurred on YOUR HOME as a result of the storm? Please do not include damage to any other property in this estimate.

21% \$2,500 or less  
25 \$2,501 - \$10,000  
11 \$10,001 - \$25,000  
19 \$25,001-\$100,000  
5 Over \$100,000  
19 (VOL) Don't know



D9. And is that more than half or less than half of your home's total value before the storm?

8% More than half  
83 Less than half  
1 (VOL) Exactly half  
8 (VOL) Don't know/Refused

D10. How much of the financial damages or loss to your home will your insurance cover – all or nearly all, most, some, just a little, or none at all?

17% All or nearly all  
13 Most  
16 Some  
7 A little  
26 None at all  
5 (VOL) Don't have insurance  
17 (VOL) Don't know/Refused

[NOTE: Question D11 was asked of homeowners that said their primary or secondary home suffered damage in D6;  $n=214$ ,  $m.o.e.=\pm 6.7$ ]

D11. What are you most likely to do with this home – repair it, tear it down and rebuild on this property, rebuild somewhere else, leave it as is, or sell it?

79% Repair it  
2 Tear down and rebuild on this property  
0 Rebuild somewhere else  
10 Leave as is  
4 Sell  
5 (VOL) Don't know/Refused

[ASK EVERYONE:]

D12. Was your home in a designated flood zone before the storm or not, or aren't you sure?

36% In a flood zone  
41 Not in a flood zone  
23 Not sure  
0 (VOL) Refused

D13. How much have you read or heard about the new FEMA Advisory Base Flood Elevations adopted by the state last month – a lot, a little, or nothing at all?

29% A lot  
41 A little  
30 Nothing at all  
0 (VOL) Don't know/Refused

D14. How well do you understand how these new guidelines affect your property – very well, somewhat well, not too well, or not at all well?

18% Very well  
23 Somewhat well  
14 Not too well  
11 Not at all well  
3 (VOL) Don't know/Refused  
30 *Not aware of ABFE (from Question D13)*

D15. As far as you know, would the new flood maps require you to build your house higher than it is now if you had to rebuild, or not?

21% Require to rebuild higher  
35 Not require to rebuild higher  
15 (VOL) Don't know/Refused  
30 *Not aware of ABFE (from Question D13)*

D16. The new guidelines define expanded flood zones and also how high homes must be built in those zones in order to qualify for flood insurance. Based on what you may have heard so far, are these new guidelines too strict, not strict enough, or about right?

27% Too strict  
4 Not strict enough  
46 About right  
23 (VOL) Don't know/Refused

[NOTE: Question D17 was asked of all homeowners; n=410, m.o.e.=± 4.8]

D17. If it turns out you are in one of these expanded flood zones, would you definitely consider, probably consider, or not consider elevating your home in order to meet these new standards?

- 18% Definitely consider
- 26 Probably consider
- 40 Not consider
- 3 (VOL) Depends
- 10 (VOL) Not applicable, known not in a flood zone
- 3 (VOL) Don't know/Refused

[NOTE: Questions D18 and D19 were asked of homeowners in flood zones; n=365, m.o.e.=± 5.1]

D18. Would you consider it if your out of pocket cost was \$25,000? How about if it cost you \$50,000? How about \$100,000?

- 5% Yes, even if \$100,000
- 5 Yes if \$50,000, but not \$100,000
- 21 Yes, if \$25,000, but not \$50,000
- 21 Yes, for lower cost
- 44 No, not consider
- 4 (VOL) Don't know/Refused

D19. Would you definitely consider, probably consider, or not consider elevating your home if it saved you \$3,000 a year on flood insurance? Would you consider it if it saved you about \$25,000 a year on flood insurance?

- 22% Consider if savings was \$25,000
- 45 Consider if savings was \$3,000
- 30 Not consider
- 3 (VOL) Don't know/Refused

[NOTE: Question D20 was asked of all homeowners; n=410, m.o.e.=± 4.8]

D20. Would you definitely consider, probably consider, or not consider selling your property to the town or county to be turned into open space?

- 16% Definitely consider
- 15 Probably consider
- 59 Not consider
- 4 (VOL) Depends
- 6 (VOL) Don't know/Refused

## E. DEMOGRAPHICS

[ASK EVERYONE:]

Now just a few final questions so we can classify your answers –

E1. What was the last grade in school you completed?

41%	High school or less
23	Some college
14	College graduate
20	Graduate school
2	(VOL) Don't know/Refused

E2. What was your age on your last birthday?

13%	18 to 29
14	30 to 39
12	40 to 49
24	50 to 59
17	60 to 69
20	70 or over
1	(VOL) Don't know/Refused

E3. How many people live in your household, including yourself?

22%	One
39	Two
39	Three or more
0	(VOL) Don't know/Refused

E3A. How many are children under the age of 18?

27%	At least one
72	None
0	(VOL) Don't know/Refused

[NOTE: Question E4 was asked of all homeowners; n=410, m.o.e=± 4.8]

E4. Are you currently paying a mortgage or other loan on your home, or not?

49%	Yes, mortgage
6	Yes, other loan (e.g. home equity)
2	Yes, mortgage and other loan
39	No, no loans on home
4	(VOL) Don't know/Refused

- E5. Are you of Latino or Hispanic origin?  
E6. Are you white, black or of Asian origin?

80% White  
9 Black  
2 Asian  
5 Latino  
4 (VOL) Don't know/Refused

- E7. What town do you live in?

32% Monmouth County towns  
17 Ocean County towns  
28 Atlantic County towns  
23 Cape May County towns

- E8. So that we can group all answers, is your total annual family income before taxes: Under \$50,000; from \$50,000 to just under \$100,000; from \$100,000 to just under \$150,000; or \$150,000 or more?

35% Under \$50,000  
24 \$50,000 - \$99,999  
14 \$100,000 - \$149,999  
11 \$150,000 or more  
4 (VOL) Don't know  
12 (VOL) Refused

- E9. Respondent gender (from observation)

52% Male  
48 Female

***Thank you very much for your help.***