CITY OF NEW ORLEANS

RAPID POPULATION ESTIMATE PROJECT

January 28-29, 2006 Survey Report

Emergency Operations Center
City of New Orleans
* * *
Greg Stone – New Orleans Health Department
Tim Grant – New Orleans Health Department
Nathaniel Weaver – Planning Section, EOC

Purpose and Objectives

The purpose of this project is to inform the decision-making processes of local, state, federal, and non-profit planners with accurate and reliable estimates of the size and characteristics of the population of New Orleans during the post-Hurricane Katrina recovery period.

The specific objectives of this project are to:

- Produce reliable estimates of the overnight and daytime population in the City of New Orleans
- Identify geographic trends in the repopulation of the city
- Produce targeted indicators of specific population characteristics as requested by City, state, and federal agencies

This project is not an official census of the City of New Orleans and should not be construed as such. All data resulting from this project should be regarded as a rough estimate intended for planning purposes only.

Results

This section includes results from the January 28-29, 2006 survey and longitudinal analyses from the November 12-13, 2005, December 3-4, 2005, and January 28-29, 2006 surveys.

Table 1: Citywide Population Estimate

Survey Results (Jan. 28-29, 2006)	**Estimate***
Population in Residential Structures	**181,400**
Confidence Interval	160,500 – 202,200

Other Population Sources	**Estimate**
Hotels**	20,000
University Dormitories***	5,900
Cruise Ships****	2,742

Total Nighttime Estimate***	**210,000**

* Ranges calculated for 95% confidence; estimates rounded to the nearest hundred.
** Provided by the Metropolitan Convention and Visitors' Bureau
*** Minimum estimate; does not include UNO
**** From Carnival Cruise Line ships' rosters from time of survey. As of 02/28/06, all workers housed on FEMA-funded cruise ships have disembarked. It is assumed that most have been subsequently housed in other facilities throughout the city. Therefore, this figure should remain relevant.
***** The Total Nighttime Estimate is derived from adding the above sources of population identified within the city. Non-residential estimates were obtained through outside sources, and have not been verified by the Emergency Operations Center through scientific survey methods.

Table 2: Survey results by stratum – Current Residents, Daytime, and Overnight*

	Population Estimate	Confidence Interval	2000 Census Population
Citywide – Current Residents**	181,400	160,500 - 202,200	484,674
Citywide – Daytime***	262,200	228,717 – 295,641	
Citywide – Overnight	176,300	155,021 – 196,897	
West Bank – Current Residents**	54,100	45,019 – 63,159	56,782
West Bank – Daytime***	68,000	53,782 – 82,198	
West Bank – Overnight	51,600	42,213 – 60,973	
Un-Flooded – Current Residents**	75,700	62,802 – 88,541	80,275
Un-Flooded – Daytime***	93,400	74,665 – 112,096	
Un-Flooded – Overnight	78,900	65,514 – 92,310	
Flooded – Current Residents**	51,700	37,853 – 65,332	347,617
Flooded – Daytime***	101,000	76,985 – 124,633	
Flooded – Overnight	45,500	32,380 – 58,526	

* Ranges calculated for 95% confidence. Estimates rounded to nearest hundred.

** Based on number of persons at sampled units who planned to "spend at least 15 of the next 30 nights" at the residence.

*** Daytime figures are representative of estimated populations in residential structures over a 31 hour period only, including friends and family visiting from outside Orleans Parish and laborers paid to work in the residence for at least two hours. Figures omit daytime commuters who work in non-residential structures (e.g. office buildings, restaurants, etc.)

Chart 1: "Current Residents" Contrasted with 2000 Census Population

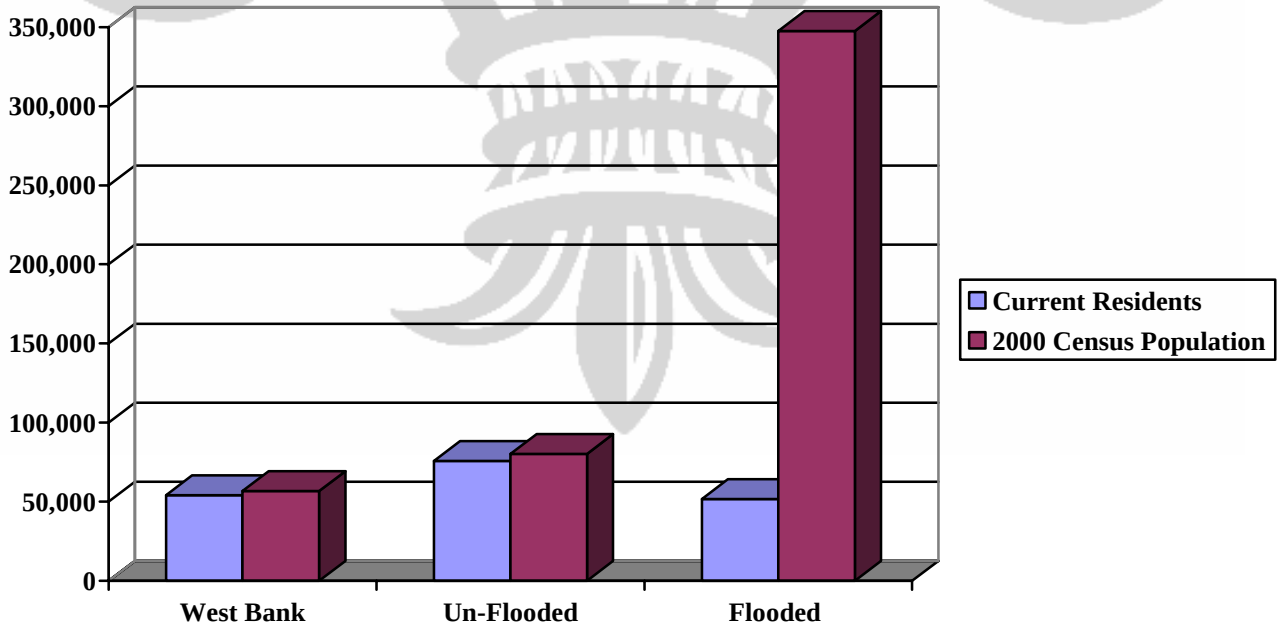


Table 3: Percentage of occupied housing units*

	Percentage of occupied housing units	Samples
City-wide – Daytime	**44%**	**860**
City-wide – Overnight	**35%**	**814**
West Bank – Daytime	80%	115
West Bank – Overnight	71%	98
Un-Flooded East Bank – Daytime	68%	172
Un-Flooded East Bank – Overnight	66%	163
Flooded East Bank – Daytime	23%	573
Flooded East Bank – Overnight	13%	553

* Ranges calculated for 95% confidence

Table 4: Average number of people per housing unit*

	Estimated Persons per Housing Unit	Samples
West Bank Current Residents	2.30	100
West Bank Daytime	2.89	101
West Bank Overnight	2.19	98
Un-Flooded Current Residents	1.61	165
Un-Flooded Daytime	1.98	166
Un-Flooded Overnight	1.67	163
Flooded Current Residents	.36	546
Flooded Daytime	.70	556
Flooded Overnight	.31	553

* Ranges calculated for 95% confidence.

Average number of people per *inhabited* housing unit

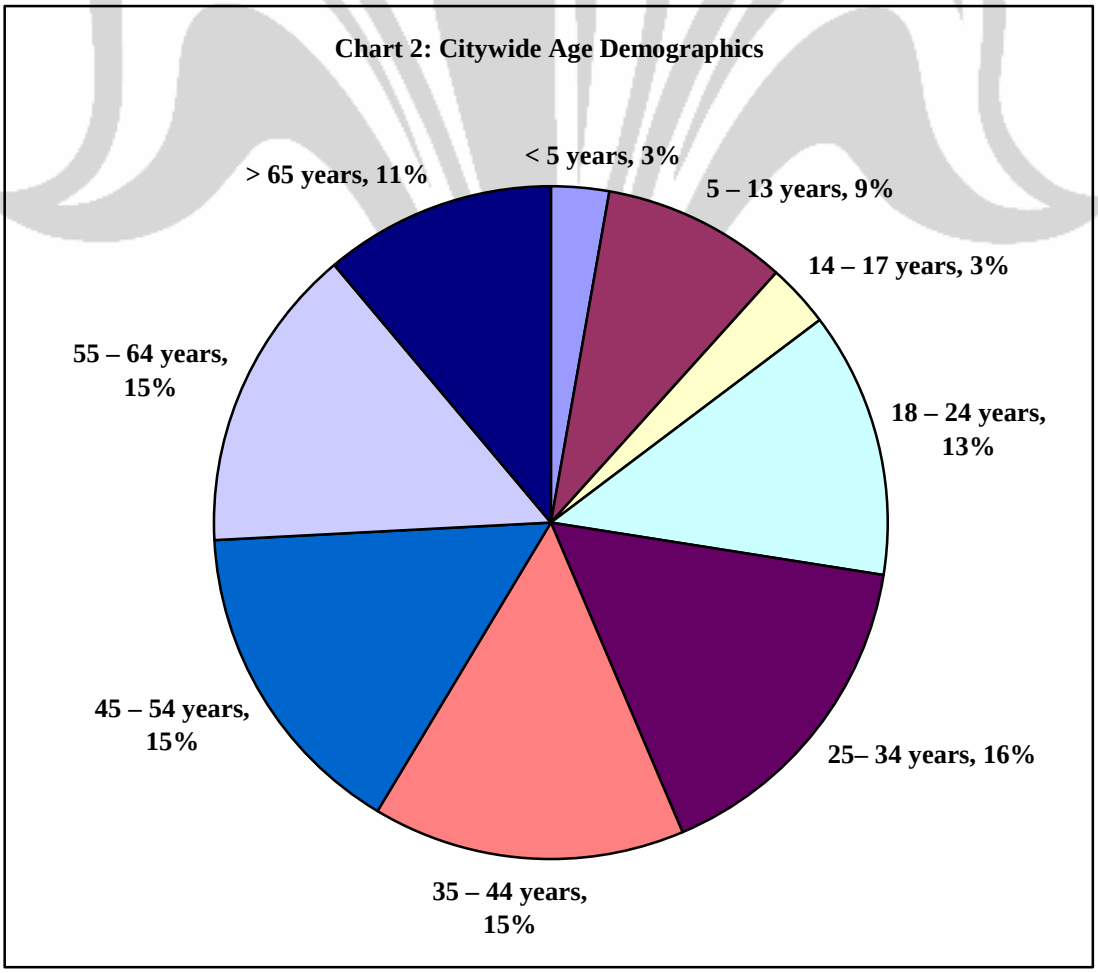
	Estimated Persons per *Inhabited* Housing Unit	Samples
West Bank	3.0	76
Un-Flooded East Bank	2.4	111
Flooded East Bank	2.6	76

Table 5: Overnight population estimates by age groups and gender*

	Citywide	West Bank	Un-Flooded East Bank	Flooded East Bank
< 5 years old	4,800	2,000	2,000	800
5 – 13 years old	15,300	7,600	3,200	4,500
14 – 17 years old	5,600	2,500	2,000	1,100
18 – 24 years old	22,300	4,400	10,000	7,900
25– 34 years old	27,900	4,200	17,400	6,300
35 – 44 years old	26,100	9,300	12,100	4,800
45 – 54 years old	26,800	6,600	11,000	9,200
55 – 64 years old	25,900	8,300	11,000	6,600
> 65	19,100	5,900	9,500	3,700

	Citywide	West Bank	Un-Flooded East Bank	Flooded East Bank
Men	93,600	26,200	41,900	25,600
Women	82,100	25,400	36,400	20,300

* Confidence is 95%; ranges not included; estimates rounded to nearest hundred.



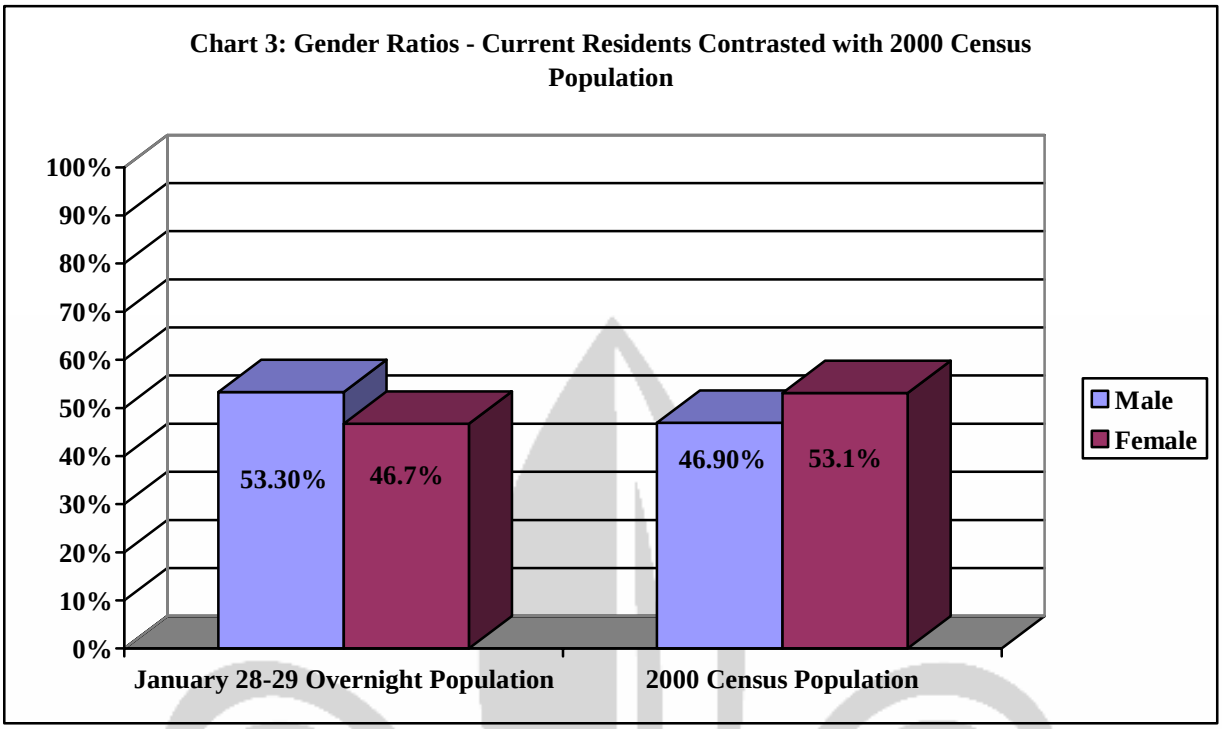


Table 6: Economic and employment indicators *

	Citywide	West Bank	Un-Flooded East Bank	Flooded East Bank
People who have paid employment	106,200	26,000	34,200	46,000
People who are unemployed and seeking paid employment	17,300	4,800	6,400	6,100
People who are unemployed and not seeking paid employment	12,300	2,300	4,500	5,600
Retired	27,900	7,900	8,700	11,300
Renters	51,400	14,000	20,500	16,900
Owners	27,300	3,500	8,600	15,200

* Confidence is 95%; ranges not included. Estimates rounded to nearest hundred. All indicators pertain to adults 17 years old and older.

Table 7: Medical indicators*

	Citywide	West Bank	Un-Flooded East Bank	Flooded East Bank
People with a long term medical condition	39,700	12,100	12,300	15,200
People with a short term medical condition	11,400	3,300	3,900	4,200
People with an injury	5,100	800	2,000	2,400
People who have needed medical attention in Orleans Parish since Hurricane Katrina	51,200	17,000	15,900	18,300
People who have sought medical treatment in Orleans Parish after Hurricane Katrina	34,600	11,400	10,300	12,900
People who have received treatment in Orleans Parish after Hurricane Katrina	31,700	10,100	8,700	12,900
People who have medical insurance	144,000	41,600	48,700	53,700
People who do not have medical insurance	42,000	11,800	13,300	17,000
People who have expressed feelings of high stress, depression, or anxiety since Hurricane Katrina	91,700	38,500	91,700	33,200
People who have sought counseling to deal with "feelings of high stress, depression, or anxiety since Hurricance Katrina"	12,200	2,000	5,900	4,300

* Confidence is 95%; ranges not included; estimates rounded to nearest hundred.

Table 8: Population Estimates by Planning District* (Map of results provided as *Attachment 3*)

Planning District	Current Residents	Overnight	Daytime
1, 2 (French Quarter/CBD, Central City/Garden District)	43,900	45,500	59,300
3 (Uptown/Carrolton)	39,700	40,400	52,400
4 (Mid-City)	17,500	17,500	28,500
5, 6 (Lakeview, Gentilly)	11,400	9,100	14,600
7 (Bywater)	9,600	7,900	8,700
9, 10, 11 (New Orleans East)	6,400	5,300	31,500
12, 13 (Algiers)	54,100	51,600	68,000

Planning District	Overnight Occupancy	Daytime Occupancy
1, 2 (French Quarter/CBD, Central City/Garden District)	51%	55%
3 (Uptown/Carrolton)	52%	54%
4 (Mid-City)	20%	27%
5, 6 (Lakeview, Gentilly)	13%	18%
7 (Bywater)	24%	30%
9, 10, 11 (New Orleans East)	3%	26%
12, 13 (Algiers)	71%	80%

* Confidence is 95%; ranges not included. Population estimates rounded to nearest hundred.

Table 9: Trends in repopulation*

	Previous Surveys**	January Survey
Citywide – Daytime	**225,500**	**262,200**
Citywide – Overnight	**134,400**	**176,300**
West Bank – Daytime	66,600	68,000
West Bank – Overnight	52,700	51,600
Un-Flooded – Daytime	86,200	93,400
Un-Flooded – Overnight	57,000	78,900
Flooded – Daytime	72,700	101,000
Flooded – Overnight	24,700	45,500
Occupancy	**Previous Surveys****	**January Survey**
City-wide – Daytime	**32%**	**44%**
City-wide – Overnight	**23%**	**35%**
West Bank – Daytime	68%	80%
West Bank – Overnight	62%	71%
Un-Flooded – Daytime	57%	68%
Un-Flooded – Overnight	49%	66%
Flooded – Daytime	18%	23%
Flooded – Overnight	8%	13%

* Compares changes in the *mean* population estimates; most changes are within the confidence interval of each survey and are not statistically significant. Confidence is 95%; ranges not included; estimates rounded to nearest hundred.

** Refers to December 3-4, 2005 survey for the West Bank and Flooded, and refers to the November 12-13, 2005 survey for the Un-Flooded.

Background

The Rapid Population Estimate Project's January 28-29, 2006 survey is the fifth such survey conducted by the City of New Orleans Emergency Operations Center since Hurricane Katrina. The project was devised in response to the need for population data to inform planning and decision-making efforts during the disaster response and recovery periods. The survey methodology is founded upon scientific sampling methods, with accommodations for the unique needs and practical limitations of the post-disaster environment.

The project began when personnel from the Planning Section of the Emergency Operations Center (EOC) (Nathaniel Weaver and Heather Rigney) approached the Centers for Disease Control and Prevention (CDC) to request assistance in producing rapid population estimates based on quantifiable field observations. The baseline information regarding the size, distribution, and characteristics of the City's population had been invalidated by the extensive destruction and depopulation effected by Hurricane Katrina. Consequently, the need for current population and demographic information to inform EOC and City recovery planning became manifest during the immediate emergency response phase following the hurricane.

EOC personnel from the New Orleans Health Department (NOHD) (Greg Stone and Tim Grant) became involved early on after identifying a department-specific need for population information. Estimates were needed to assess the extent of external resource assistance required, inform the placement of mobile and modular medical resources, and calculate physician-to-population equivalency ratios. In light of the data deficit which characterized the immediate post-Katrina environment, the EOC team determined that population estimates could not be reliably produced based on available data sources. Having thus identified the need to initiate new research, the EOC team met with the CDC to determine the most appropriate methodology.

Given the uncertain nature of the City's post-Katrina landscape, the CDC and the EOC team determined that a field-based survey methodology would provide the most appropriate research instrument. Conscious of the financial and material constraints of the post-Katrina period, the EOC team concluded that the needs of the project would have to be satisfied through volunteerism (surveyors) and the careful utilization of material and technical resources already available within the City's Emergency Operations Center. In some cases, the EOC team incurred modest personal expenditures (Attachment 6).

The EOC team and CDC advisors implemented the first round of pilot surveys over the weekend of October 29-30, 2005. The results of this survey were provided in report format to the EOC after undergoing analysis by a statistician from the CDC. This round and subsequent rounds of the survey were supported by the volunteerism of graduate students and faculty from Tulane University and Louisiana State University. Representatives from these universities collaborated with the EOC team to refine methods, collect data, and analyze the results. The EOC implemented an additional pilot survey over the weekend of November 5-6, 2005. Results from the two subsequent surveys – November 12-13, 2005, and December 3-4, 2005 – were presented during the EOC briefing of December 19, 2005 and were more broadly disseminated in report format shortly thereafter.[1]

[1] Report titled: *Rapid Population Estimate Project: December 3-4 Survey Report*

Methodology

This section describes the methodology used for the survey performed over the weekend of January 28-29, 2006. The survey collected data from randomly selected housing units. These data were then applied to 2000 Census Bureau estimates of the total number of housing units in the city to estimate population demographics.

Sampling

Project directors stratified the city into three unique geographic regions: the West Bank, the "flooded" area of the East Bank, and the "un-flooded" area of the East Bank. The flooded stratum was separated from the un-flooded stratum along census tract boundaries using post-Katrina housing inspection data from the Army Corps of Engineers and the Shaw Group as a reference. It is acknowledged that pockets of un-flooded areas existed within the flooded stratum; however, in order to retain the ability to discuss results in geographic terms, these pockets were not removed from the flooded stratum. On the East Bank, the number of samples in each stratum was calculated such that each stratum's total was proportional to its number of housing units out of the total number of housing units on the East Bank.[2] For the West Bank stratum, the number of samples was determined based on a desired 95 percent confidence level, response variances from previous surveys, and logistical constraints.[3]

An initial pool of sample points was selected based on simple random sampling from a database of Orleans Parish addresses provided by the Sewerage and Water Board.[4] Each selected sample point was tagged with the census tract in which it is located using a geographic information systems (GIS) software.[5] Then, using 2000 U.S. Census Bureau data, final sample points were selected such that each census tract received proportional representation based on housing unit density.[6] This additional stratification was performed for two reasons: (1) to ensure that the selected samples reflected a representative geographic distribution across the city and (2) to mitigate any potential geographic biases within the Sewerage and Water Board address dataset. Additionally, in order to maximize the statistical power of any future longitudinal analyses of the data, 381 sample points from the November 12-13, 2005 and December 3-4, 2005 surveys were revisited

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[2] According to the 2000 Census, there are 191,574 housing units on the East Bank – 144,458 housing units in the flooded stratum and 47,116 in the un-flooded stratum. As such, the un-flooded stratum has about 25 percent of the housing units on the East Bank (47,116/191,574). Therefore, if, for example, 1,000 samples were drawn for the East Bank, 250 would be in the un-flooded stratum.

[3] The West Bank stratum was not included in the housing unit-proportional sampling as the East Bank strata were, because the relatively small number of housing units in the West Bank and the project's logistical constraints would have yielded too few sample points in the West Bank stratum.

[4] After several pilots, it was determined that this was the most accurate address database available for the project. The data, however, tend to under-represent multi-unit structures, as it contains only one address per water meter. If a sampled address contained multiple units, surveyors were instructed to randomly select a single unit.

[5] All GIS applications were conducted using ArcGIS 9.1.

[6] Example of sample selection procedure:

Census tract 100 on the West Bank has 1,407 housing units (HU). The West Bank stratum has 23,517 housing units. If 120 samples (n) are selected for the West Bank stratum, then 7 samples should fall within census tract 100.

(Tract 100 HUs/West Bank HUs) X n = Samples in tract 100
So
(1,407/23,517) X 120 = 7

during the January 28-29, 2006 survey.[7] In all, 902 housing units were sampled city-wide during the survey (Table 10).

Table 10: Number of housing units surveyed in New Orleans during the January 28-29, 2006 Survey

Stratum	Sample Points
West Bank	119
Un-Flooded	183
Flooded	600
Total	902

During the data analysis phase, the East Bank was re-stratified along City Planning District lines to provide a more useful geographic platform for City planners.[8] This *post hoc* re-stratification was possible because the number of samples in each census tract was proportional to its number of housing units out of the East Bank total.

Survey Process

The survey took place over two consecutive days: January 28 and 29, 2006. Roughly 116 volunteer surveyors participated over the two-day period. Surveyors were divided into teams of two or three based on level of experience and assigned a list of approximately 20 sample points. The survey followed a three-visit methodology in which all housing units were visited three times during the 31 hour survey period unless one of the following three conditions was satisfied: (1) the point was declared "null," (2) an encounter with a resident of the sampled housing unit yielded a completed survey, or (3) an encounter with a resident of the sampled housing unit yielded a "refusal" to participate. Data were gathered using a survey instrument similar to the one implemented in the November 12-13, 2005 and December 3-4, 2005 surveys (Attachment 5).[9]

In cases where the selected sample point was found to be a non-residential structure or the exact address did not exist, surveyors were instructed to go to the next lowest residential address on the same street. If no lower residential addresses existed within two blocks, the sample point was marked as "null" and dropped from the sample universe.[10]

If the sampled housing unit was found to be occupied, the surveyor read or paraphrased from the informed consent form (Attachment 4) and the respondent was given the opportunity to accept or decline. In the case of a refusal, the encounter was ended and no survey questions were asked. Refusals were not included in the population calculations but were used for calculating the percent of occupied housing units during the daytime (Table 3) since it was determined that refusals did constitute "occupied" housing units. Respondents who chose to participate were asked a series of questions from the survey instrument. Once the survey was completed, the house was not revisited.

If the housing unit was unoccupied on the first visit (1/28), surveyors left a door hanger packet. Each packet included a description of the survey, a request for participation from Chief Joseph

[7] Sampled housing units from the November 12-13, 2005 and December 3-4, 2005 surveys were selected based on the same sampling methodology as samples from the January 28-29, 2006 survey. The 381 revisited sample points were selected such that census tract proportionality was maintained.

[8] City Planning Districts are composed of groups of neighborhoods and conform to 2000 census tract boundaries.

[9] Subsequent to the November 12-13, 2005 and December 3-4, 2005 surveys, the survey instrument was piloted and modified over a one month period.

[10] In the case of one survey team, errors were made by going 'up' one address rather than 'down.' In this case the data were accepted because the error was made consistently and systematically and was not deemed to be the result of 'respondent searching' on the part of the survey team.

Mathews, Director of Emergency Preparedness, and a survey form to be filled out by a resident of the sampled address. Each unoccupied residence was revisited two times, with no fewer than four hours between each visit.[11] All third visits were completed on the second day of surveying (1/29).[12] If no response was recorded after the third visit, the house was considered to be unoccupied during the survey period.

If the sampled residence was unoccupied on the first, second, or third visit, volunteers were encouraged to seek "proxy" responses from neighbors. Proxies were asked to answer the survey questions about the *sampled* housing unit, not their own. Proxy responses were only used if, after three visits, no encounter was made with a resident from the sampled housing unit. If the proxy could neither confirm nor deny if the residence was occupied, the sample point was treated as a "no response" after three visits.[13]

If a travel trailer (FEMA or private) was found to be on the same property as a sampled housing unit, the trailer was treated as an extension of the sampled housing unit and all questions were asked such that they referred to "the address and [the] trailer." If a travel trailer was found to be *near* the sampled housing unit, surveyors were to first approach the sampled housing unit and if there was no respondent, they were instructed to knock on the door of the trailer and inquire if it belonged to the resident(s) of the sampled housing unit. If it did, it was treated as an extension of the sampled housing unit. If it did not, the resident(s) of the trailer was questioned as a proxy respondent.

Calculations

Results from the survey were used to calculate an average number of persons per sampled housing unit for each variable in question. These averages were then applied to 2000 Census data on the total number of housing units within each stratum. City-wide totals were then calculated at a 95 percent confidence level.

Methodological Constraints

This survey method is likely to underestimate the city's current population. It is possible that a sampled housing unit in which a resident was not present during any of the survey visits and chose not to complete the door-hanger packet was actually occupied during the survey period. In such cases the housing unit in question would be erroneously recorded as "unoccupied," reducing the population estimate for the stratum.

Daytime estimates should be taken as rough indicators as to the difference in daytime activity in residential structures over the two day survey period. Daytime figures **do not** fully represent the number of persons in the City during the day insofar as they omit significant sources of

[11] Due to time constraints, three (3) revisits were made before four (4) hours had passed; however, no revisits occurred within less than three (3) hours of the previous visit.

[12] Seven (7) samples were only visited twice but were accepted as "no response" or unoccupied housing units for the purpose of data analysis. This decision was made based on compelling qualitative evidence provided by the survey team in the "observed" box on the survey instrument.

[13] In cases where a proxy response indicated that the sampled housing unit was unoccupied during the survey period, any reliable information that could be obtained from the proxy regarding the housing unit's pre-Hurricane Katrina occupancy characteristics was used to augment or validate a "no response" coding based on the survey instrument's three visit methodology.

population influx, most notably commuters who work inside but live outside Orleans Parish. In addition, logistical constraints have only allowed for weekend surveys. There are currently no estimates available on how the daytime or overnight population characteristics may differ during the workweek.

This survey includes only *residential* structures within the city and as such does not measure non-residential sources of population such as hotel occupants, persons staying in places of business, and residents of group quarters such as university dormitories and assisted living facilities. It was decided, however, not to attempt to capture these populations through this survey methodology as alternative sources for this information currently exist. Supplementary hotel information was provided by the Metropolitan Convention and Visitors' Bureau. Cruise ship estimates were taken from the two ship rosters from Carnival Cruise Lines. Although all ship occupants must disembark by the February 28, 2006 deadline, it is likely that they will remain within the city.[14] Therefore this population figure should continue to factor into the citywide total estimate. These supplements (Table 1) were provided to give a more accurate picture of the number of people in the City, but were not derived from the survey methodology outlined above.

Discussion

The population estimates for the West Bank and the un-flooded stratum of the East Bank indicate that the population in these areas has returned to near pre-Katrina size (Chart 1). Consequently, it can be assumed that, beyond the addition of significant numbers of private and group trailer sites, any considerable future population growth will occur primarily in the flooded stratum of the East Bank. This will depend largely on the availability of trailers, the restoration of utility services, home renovations, and insurance claim settlements. Given these obstacles to repopulation, we do not recommend using past trends in re-population to estimate future growth.

While the longitudinal data from this survey methodology is not the proper mechanism with which to prognosticate trends in future population growth, a look forward at the next several months would suggest that the population estimates from the January 28-29, 2006 survey are likely to remain valid until the beginning of June 2006. As in previous years, the City will likely experience a population spike during the Mardi Gras season and over the week of the New Orleans Jazz and Heritage Festival. It is highly likely that the population will return to its 'normal' level shortly thereafter.

The installation of private and group trailer sites and the renovation of flooded homes are likely to result in a gradual and continual upward trend in population growth. It is not, however, until the end of the academic calendar at the beginning of June that the city is likely to experience any considerable population shift. Mandatory year-long enrollment in schools outside of Orleans Parish and a desire to provide their children with a sense of stability has been a considerable barrier to the return of many displaced families. At the end of the school year, it is likely that

[14] All cruise ships occupants are mandated to disembark by the 28th of February. Consequently, this population figure will no longer be directly applicable. However, since the majority of cruise ship occupants are City employees with FEMA trailers pending, these persons are likely to remain inside Orleans Parish beyond the deadline to vacate the cruise ships. As such, this population figure should continue to factor into the citywide total estimate even after the cruise ship occupants disembark.

many of these families will return to the city. At the same time, however, this influx may be mitigated by the departure of significant numbers of university students as they return home, pursue studies abroad, or graduate and look for work in other locations. Because it is likely to be a transitional period for the city's population, we recommend planning the next population estimate for June or July 2006.

Acknowledgments

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Project Directors

Nathaniel Weaver – Planning Section, Emergency Operations Center

Greg Stone – New Orleans Health Department

Tim Grant – New Orleans Health Department

Heather Rigney – CNO Homeland Security

Invaluable Assistance Provided by

Lani Clark – Tulane University School of Public Health, MPH Candidate
Erin Smith – Tulane University School of Public Health, MPH Candidate
Erin Bertschy – Tulane University School of Public Health, MPH Candidate
Arina Lekht – Tulane University School of Public Health, MPH Candidate
Hiro Toiya – Tulane University School of Public Health, MPH Candidate
Hannah Alsdurf – Tulane University School of Public Health, MPH Candidate
Catherine Tridico – LSU Health Sciences Center, MPH Candidate
Prathima Nagireddy – LSU Health Sciences Center, MPH Candidate
Sarah Burton – General Physics

Patricia Andrews – LSU Health Sciences Center, Faculty
Jeannette Gustat – Tulane University School of Public Health, Department of Epidemiology, Faculty
Beth Fussell – Tulane University Graduate School, Department of Sociology, Faculty
Nancy Mock – Tulane University School of Public Health, Department of International Health and Development, Faculty
John Lefante – Tulane University School of Public Health, Department of Biostatistics, Acting Chair

Centers for Disease Control and Prevention (CDC) Team
Alden Henderson
Stephanie Davis
Kris Bisgard
Benjamin Skalver
Maureen Phelan
Maria Kano

U.S. Census Bureau Team
Christa Jones
Glen Ferri
Kimball Jones

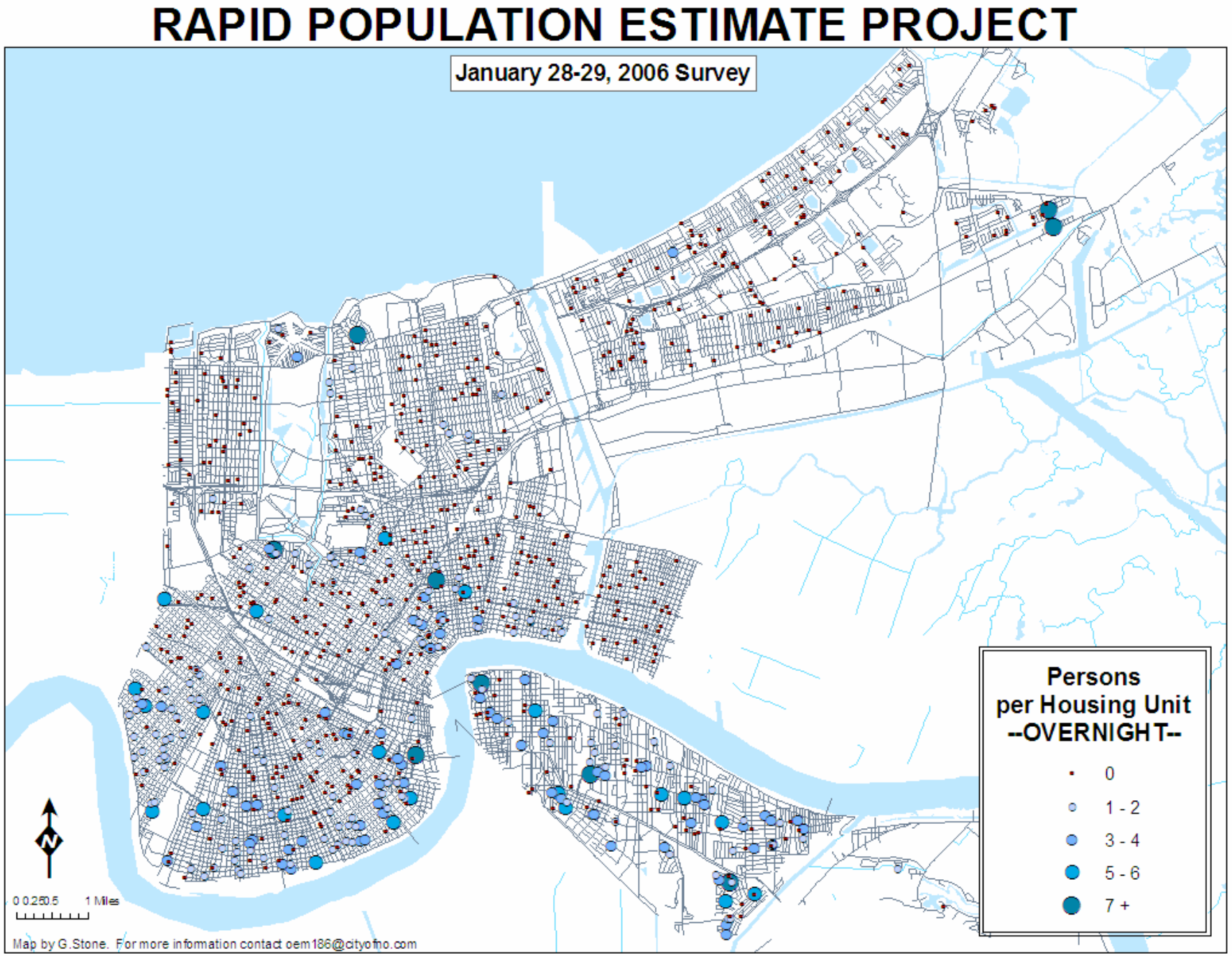
University of South Florida Team
Jackie Wertel
Richard F. Kuehne
Donna R. Shanklin
Marilyn Williams
Anthony Barone
Pierre Louis Yves J. Gerald

Surveyors

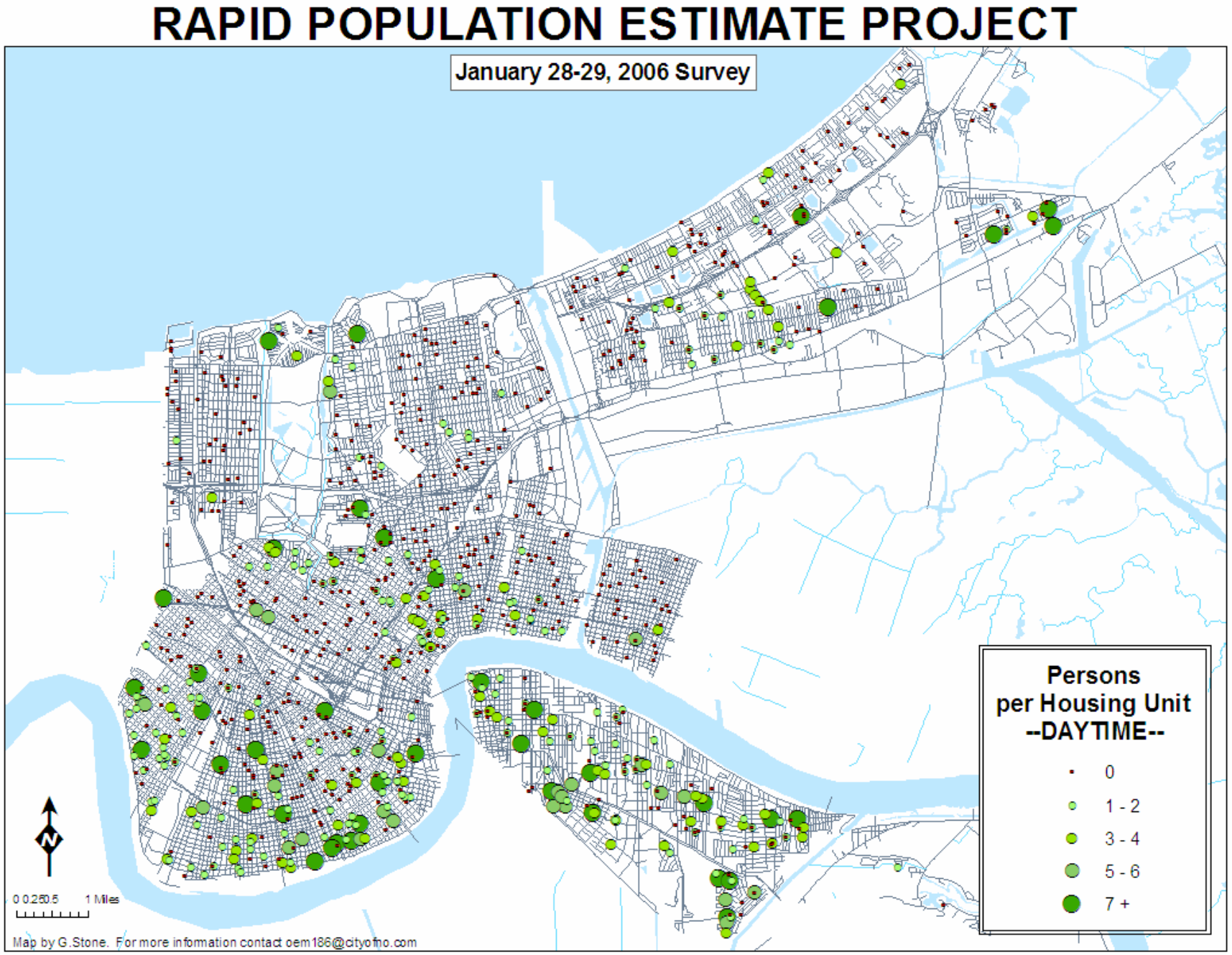
Aaron Martin	Erin Spencer	Kris Chen	Rebecca Elliott
Abigail Vautrain	Faro Jones	Laureen Lentz	Richard Kuehne
Akie Kaneko	Georgina Richard	Lauren FitzHarris	Rob Boyer
Andy Lehman	Gigi Camey-Ubilla	Lauren Rios	Robert Champagne
Angela McAllister	Heather Buck	Linda Yoon	Roshan Badakhsh
Anna Hoffman	Herminia Alva	Lionel Henderson	Sarah Kahler
Anthony Barone	Inez Henderson	Lizzy Jahncke	Serena Fuller
April Adams	Jackie Wertal	Manuela Villar	Shannan Williams
Ashley Blacker	Jacquelyn Morton	Maria Sirois	Sheila Greene
Brian Root	Jacquelyn Shafe	Marilyn Williams	Sierra Tolbert
Carla Ball	Jacquie Firth	Maxwell Kwarko	Silas Bussman
Cassie Chandler	Jason Feldman	Megan Bronson	Sophie Chotard
Chelsea Gober	Jen Pollard	Megan Dieterich	Stephen Murphy
Cheryl Sanders	Jennifer Glick	Miranda Bryant	Susan Van Loon
Christine Scott	Jenny Wu	Monear Makvandi	Susie Dudis
Collette Alsegbug	Jessica Behrhost	Mutasium Mohamed	Tanya Bates
Daesy Behrhost	Jessica Gorham	Nick Bodor	Tewabech Aychiluhem
Dan Figueras	Jim Hobbs	Nigel Lewis	Tiffany Rugless
Deborah Evan	Joel Conkle	Noah Barth	Toni Jones
Donna Shanklin	John Hembling	Nora Moncrieff	Tunika Okatcha
Dorie Swanson	Jonathan Caillouet	Nour Nasser	Wesley Hedden
Dwain Booth	Josh Norman	Olivia Almendares	Will Andrews
Ebony Lucas	Julio Luoudenback	Pamela Mann	Yan Du
Elizabeth Spector	Karen Chin	Patrick Carder	Yinan Peng
Emily McWilliams	KC Coffey	Quoc Nguyen	Zeina Khodr

For additional information about this report or upcoming surveys, please contact:
oem185@cityofno.com or oem186@cityofno.com.

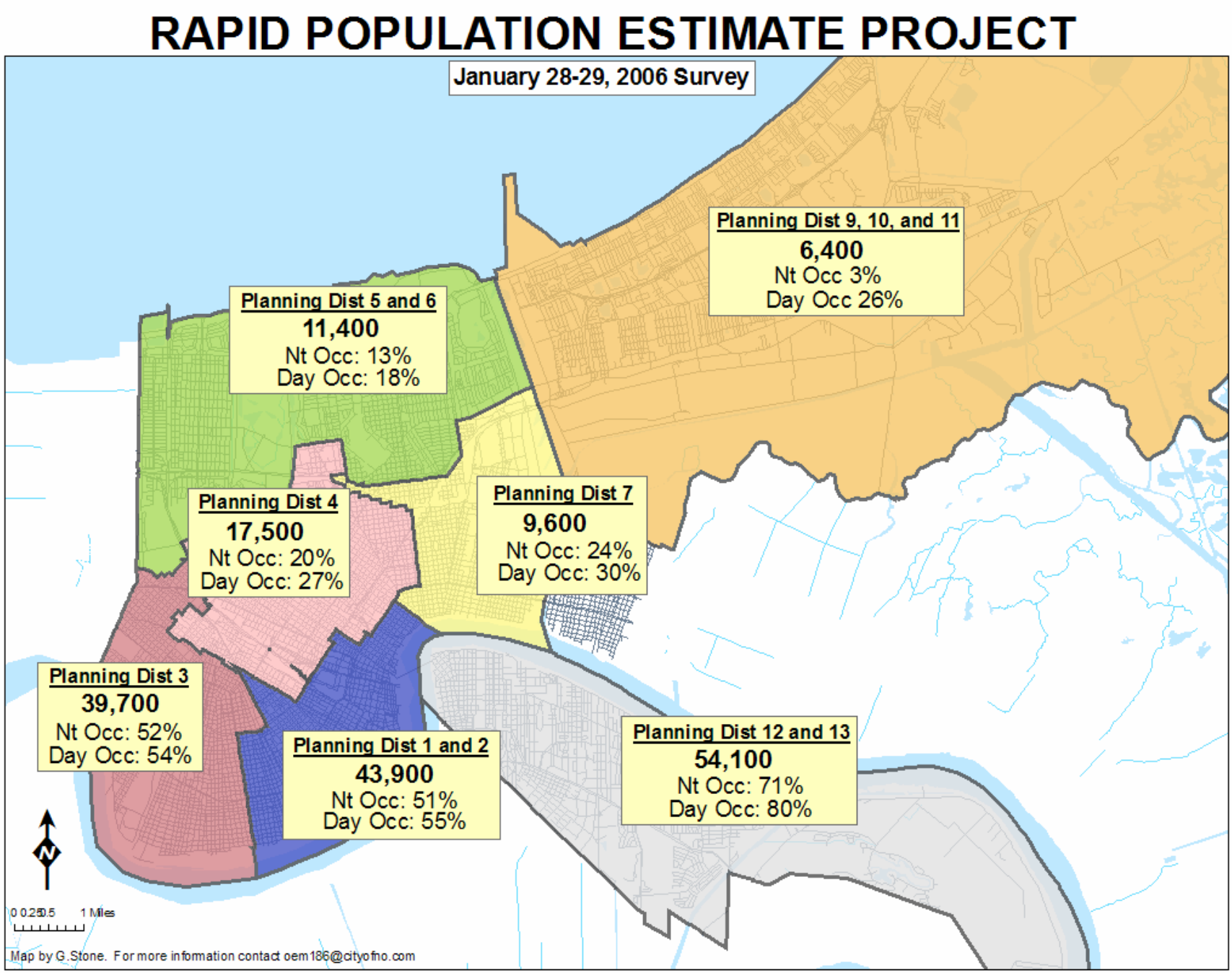
Attachment 1: Number of persons per housing unit – Overnight



Attachment 2: Number of persons per housing unit - Daytime



Attachment 3: Population estimates by Planning District



INFORMED CONSENT (TO BE READ OUT LOUD TO RESPONDENTS)

Hello, my name is _____ and I am working with the City of New Orleans. We are doing a rapid population estimate of the city since Katrina. We would like to ask you a short survey that will help us allocate emergency and non-emergency resources for the population. The survey should take less than 3 minutes to complete.

Your house was randomly selected from a list of addresses. All information you give is confidential and we don't need to know your name. You do not have to answer any questions you don't want to and you can stop at any time. We hope you will choose to participate in this survey since your views are important.

Would you like to participate in the survey?

BEGIN SURVEY ON THE NEXT PAGE……

Rapid Population Estimate Project

New Orleans, LA

Survey Team _____ **Sample Point # _____**

Address _____ ☐ **Trailer**

☐ **1st Attempt: _____**
Date Time

☐ **2nd Attempt: _____**
Date Time

☐ **3rd Attempt: _____**
Date Time

☐ **Resident** ☐ **Proxy** ☐ **Null Point** ☐ **Refusal**

Interviewer Observations:

*Note: If the interviewee is currently staying in a trailer, ask which address the trailer is associated with. If the trailer is associated with the sampled address, treat the trailer as an extension of the housing unit. Tell the resident: "**All questions refer to the address and this trailer**."*

1. How many people currently live at this address; **only include** individuals who plan to stay overnight for more than 15 of the next 30 nights?…….. ☐
2. How many people lived at this address **before** Hurricane Katrina?..... ☐
   2a) How many of the people who lived at this address before Hurricane Katrina will be here today?..... ☐
3. Is anyone living at this address who did **not** live here before Hurricane Katrina?..... ☐Y ☐N
   3a) (*If yes to 3)* Of those, how many will be here today?..... ☐
4. How many neighbors, friends or family members currently living **outside** Orleans Parish will be at this residence today?..... ☐
5. How many laborers paid to work at this residence will be here for 2 or more hours today?..... ☐
6. Will anyone be here today who was not included in your responses to my previous questions?..... ☐Y ☐N
   6a) (*If yes*) How many of them live outside Orleans Parish?..... ☐

7. How many people slept at this residence last night?..... ☐

(If "0" people slept here last night, skip to Question 10)

7a) Of those, how many are male?..... ☐

7b) How many are female?..... ☐

7c) What are the ages of the people who slept here last night?
(Indicate number within each age range. If respondent does not know, show him/her the age ranges and ask him to identify the closest match.)

a) How many are 4 years old or younger?..... ☐

b) How many are ages 5 – 13?..... ☐

c) How many are ages 14 – 17?..... ☐

d) How many are ages 18 – 24?..... ☐

e) How many are ages 25 – 34?..... ☐

f) How many are ages 35 – 44?..... ☐

g) How many are ages 45 – 54?..... ☐

h) How many are ages 55 – 64?..... ☐

i) How many are 65 years or older?..... ☐

8. (*ONLY ask if any from 7c are between 5-24*) How many children between the ages of 5-18 who slept here last night are:

i. Enrolled in a school within Orleans Parish…… ☐

ii. Enrolled in a school outside Orleans Parish…… ☐

iii. Enrolled in a public or charter school…… ☐

iv. Enrolled in a private or religious school…… ☐

v. Home schooled…… ☐

vi. Not enrolled…… ☐

vii. Other…… ☐

(*ONLY ask 8a and 8b if any are listed as "Not Enrolled" or "Enrolled…outside Orleans Parish."*)

8a) Of those children not currently attending school in Orleans Parish, how many will enroll in Orleans Parish this year?……

8b) Where and when will they **first** enroll?: (*Indicate number in each category*.)

i. Public School for Spring 2006……

ii. Public School for Fall 2006……

iii. Private School for Spring 2006……

iv. Private School for Fall 2006……

9. Of those people who slept here last night, how many **did not** live here **before** Hurricane Katrina?.....

10. How many people will be living at this residence one month from today?.....

(read aloud) The rest of the questions refer **only to those residents of this address who will be here today**.

11. Since Hurricane Katrina, how many residents here today have needed medical attention while in Orleans Parish?.....

11a) (*If any in 11*) Of those, how many **sought** treatment **within** Orleans Parish?.....

11b) (*If any in 11a*) Of those, how many **received** treatment **within** Orleans Parish?.....

12. How many residents here today have expressed feelings of high stress, depression or anxiety since Hurricane Katrina?……

12a) Of those, how many sought counseling to deal with those feelings? ……

13. How many residents here today have:

13a) a long-term medical condition or disability……

13b) a short-term medical condition……

13c) an injury……

14. How many residents here today currently have some form of medical insurance?.....

15. How many residents here today currently **do not** have some form of medical insurance?.....

16. How many people **17 years old or older** at this residence:

16a) are retired …… ☐

16b) are unemployed and seeking paid employment…… ☐

16c) are unemployed and **not** seeking paid employment…… ☐

16d) have paid employment …… ☐

16e) other…… ☐

17. Do the current residents of this address own or rent this residence? (*check one*)

☐ Own ☐ Rent ☐ No One Currently Resides at Residence ☐ Don't Know ☐ Other_____

18. Can we revisit this residence in our continuing effort to estimate trends in the repopulation of the city?

☐ Yes ☐ No

Interviewer Comments:

Survey Resources

The following tables provides a rough estimate of resources required to conduct the January 28-29 survey. Exact input figures are not available; all figures have been estimated *post hoc* by the Project Directors. Estimates are considered generally conservative.

Personnel

Category	Source of Contribution	# of Persons	Total Hours
Project Directors	City Personnel	4	450
Planning Meetings (Volunteers)	University Students	30	60
Surveyors (Volunteers)	University Students	116	1,970
Data Entry/Validation (Volunteers)	University Students/CDC	11	72
Consultation & Technical Assistance	CDC/Census Bureau/Tulane Faculty	13	250

Total Hours: 2,802

Other Resources

Category	Source of Contribution	Units	Cost per Unit	Total
Estimated Fuel Costs	Volunteers	84 cars	$15 (½ fuel tank)	$1,260
Supplies/Survey Materials[15]	City/Project Directors	N/A	N/A	$200
Photocopies/Printing	City	12,500 sheets	$0.02 (per sheet)	$250
Software & Licenses[16]	City/Project Directors	N/A	N/A	N/A

Total Costs: $1,710+

[15] Supplies used includes: clipboards, sheet protectors, accordion folders, and various office supplies.

[16] Software used includes: ArcGIS 9.1, SPSS 11.5, Adobe Professional 7.0, and Microsoft Office 2003 (Word, Excel, Access)