

Using Maps to Promote Health Equity

This report is one in a series of papers on best practices for using maps to promote health equity. Commissioned by The Opportunity Agenda, in partnership with the Health Policy Institute at the Joint Center for Political and Economic Studies, this project was made possible by The California Endowment. The complete volume of research and case studies is available on-line at: <http://www.opportunityagenda.org/mapping>.

Electronic Mapping and Social Justice Journalism: A Perfect Match

Craig Flournoy

June 2009

Contents

Introduction	1
Historical Roots of Mapping Health Disparities and the Media	3
Case Study I: <i>The Dallas Morning News</i>' "Toxic Traps" Series (2000)	5
Case Study II: <i>San Francisco Chronicle</i>'s "Too Young to Die (2001)	9
Case Study III: <i>The Chicago Sun-Times</i>' "Sex Offenders in Nursing Homes" (2005)	12
Case Study IV: <i>The Oakland Tribune</i>'s "Not Just a Number" Website (2007)	16
Conclusion	19

(Editor's Note: Randy Loftis and Brenda Gonzalez provided research assistance for this report).

Introduction

Bakersfield, California is one of the fastest-growing cities in the country. Between 1990 and 2000, the city's population increased 41 percent—triple the statewide figure. New residents arrive with a seemingly endless list of questions. Which neighborhoods are affordable? Which streets have the fewest potholes? Where are the ethnic grocery stores? Good restaurants? Garage sales? As it happens, there is a website that can answer these and many other questions. It has dozens of interactive maps covering virtually every aspect of life in Bakersfield from antique stores and bridal shops to water parks and wildflowers. The site also includes mapping information that displays deep disparities in Bakersfield. The neighborhoods with the highest—and fewest—number of murders. The areas most victimized by gang violence and those left untouched. The blocks where the city's most dangerous buildings are located and those free of dilapidated structures. *The Bakersfield Californian*, which has a daily circulation of less than 60,000, is responsible for the website. It seems odd—a newspaper, indeed a *small* newspaper, producing dozens of electronic maps that inform, entertain, and challenge its audience. It happened because a couple of years ago, a kid reporter who'd just landed a job with *The Californian* wanted to produce an electronic map showing where to find holiday lights. Her name is Matylida Czarnecka. After starting her new job, she learned Google had released new software for mapping. Czarnecka worked with it, creating "Holiday Lights" online, the first of what would be dozens of electronic maps. "From that point on, I just looked at mapping opportunities and finding tools that were available for free," she said. She did not have far to look. There was ZeeMaps.com and quikmaps.com and Google's My Maps. Czarnecka had "map chats" with reporters. They produced online maps. Maps became part of the newsroom culture. Czarnecka sees limitless opportunities. "To me," she said, "mapping is a new form of storytelling." Czarnecka accomplished all this before she turned 27.¹

Until recently, electronic maps were beyond the reach of all but the largest news organizations. In recent years, however, a revolution of sorts has taken place. New technology has made it significantly easier for journalists to use sophisticated electronic mapping in researching stories and displaying the results. That electronic tool, geographic information systems (GIS), provides precedent-shattering power. GIS allows journalists to accomplish multiple tasks and display the results visually. A GIS system of hardware and software can be used for the retrieval, storage, mapping, and analysis of geographic data. All a reporter needs is a computer, GIS software, and a geographic database. Several factors have made it easier to use computer-assisted geographic mapping in newsrooms. One is cost. The more sophisticated GIS programs, such as ArcGIS, have become less expensive. Free, open source programs also are available. ESRI, the world's biggest GIS mapping software company, offers ArcExplorer available at no cost on its website. Other free GIS programs can be found at the Open Source GIS website. A

¹ Flournoy phone interview with Matylida Czarnecka, Jan. 14, 2009; Amy Gahrn, "[Some Really Cool News Maps](#)," Poynter Online. *The Bakersfield Californian* maps website can be found at www.bakersfield.com/maps/. The software Czarnecka used initially was API for maps. API, or application programming interface, includes formulas, data structures and protocols used to build maps and other applications.

second reason is the increasing availability of training opportunities. Many professional organizations and universities offer classes where journalists can learn how to build spreadsheets, databases, and electronic maps. Among the first to do so was the National Institute for Computer-Assisted Reporting, which offers boot camp classes in advanced mapping techniques. A third reason is the increasing availability of GIS data from government agencies. Virtually every federal agency now provides GIS mapping data at no cost. All of this means data collection that formerly took weeks or months can now be done in days or even hours. This, in turn, provides more time for analyzing the results and for exploring the human impact.²

Can news organizations use GIS as an effective investigative reporting tool? *The Miami Herald* answered this question in 1992 after Hurricane Andrew struck Miami-Dade County. Local officials had long maintained south Florida had among the toughest building codes in the country. Why, then, did Andrew cause an estimated \$35 million in property damage? The newspaper used GIS to help answer that question. Research editor Stephen Doig cross-tabulated a database of 60,000 hurricane damage reports with a file of 100,000 property tax records to determine which variable—value, construction material, size, and age—was linked to the amount of damage suffered by each home. Results showed Andrew inflicted its greatest damage on newer homes. GIS allowed the reporters to visualize the findings. From documents and interviews, they subsequently discovered the shoddy construction was the result of lax building codes and inadequate inspections. *The Miami Herald* published its findings in “What Went Wrong,” a 16-page special report. GIS allowed the newspaper to visually display its findings, including a color-coded map showing the impact of the storm on 420 neighborhoods. The pioneering project had important results—Dade County officials significantly strengthened building codes. For its work, *The Miami Herald* was awarded the 1993 Pulitzer Prize for Public Service. “What Went Wrong” demonstrated the journalistic power of GIS. Since then, news organizations have used the technology to examine and explain disparities ranging from preventable diseases and property appraisals to lead poisoning and spoiled ballots.³

The technological revolution raises a number of important questions for individual journalists and news organizations. What challenges do journalists face when creating maps today? Is it enough to use mapping technology to explain the story? Should journalists use sophisticated graphics with the aim of prompting action? The questions facing news organizations are no less difficult. They are grappling with the worst economic environment since the Great Depression. In recent years, newspapers and broadcast outlets have shed thousands of jobs. The stock prices of some of the nation’s most venerable news organizations have plummeted. In this increasingly bleak landscape, is there a role for computer-assisted reporting? Is mapping technology an expensive toy,

² [Open Source GIS website](#); National Institute for Computer-Assisted Reporting, “[Social Network Analysis](#),” “Mapping the News” conferences have been sponsored by the American Association of Geographers, the National Geographic Society and ESRI. See ESRI, “[GIS for Media and Press](#).”

³ “[What went wrong](#),” *Miami Herald*, December 20, 1992; Gary Anthes, “Miami paper gets Pulitzer thanks to stats analyses,” *Computerworld*, May 3, 1993, p. 99; “A deadly difference: America’s racial health divide,” *Cleveland Plain Dealer*, March 12–16, 2000; “True value or not?” and “An unevenly sliced pie,” *The Columbus Dispatch*, March 12–13, 2000; “[Poisoned](#),” *Providence Journal*, May 13–18, 2001; “Florida ballot spoilage likelier for blacks” and “[A racial gap in voided votes](#),” *The Washington Post*, December 20 and 27, 2000. See also David Herzog, *Mapping the News: Case Studies in GIS and Journalism* (Redlands, Calif.: ESRI Press, 2003): 13–21, 45–54, 69–78, 103–112.

or might it help news organizations survive? To address these questions, I conducted case studies of investigative projects by four news organizations. In three cases, journalists used GIS to conduct their research and to present their findings. In the fourth, reporters built on a geographic database by doing their own computer-assisted reporting. Taken together, the four projects suggest news organizations can use electronic mapping to highlight disparities in their communities, bring about change, and allow news consumers to join the news-gathering process. Electronic mapping is not a magic bullet, but it does possess great potential. As Czarnecka observed, “I don’t know that it will save newspapers, but it’s definitely a great service.”⁴

Historical Roots of Mapping Health Disparities and the Media

Although modern mapping technology has greatly expanded the capabilities and audience of communications on public health issues, it would be a mistake to assume that the use of maps to identify and publicize those issues is a recent development. In fact, the publication of geographic information for mass audiences has played a vital role in the history of health communication. Even the foundation of modern epidemiology can be traced to a widely published map—in this case, one originally prepared by hand.

We now view cholera as a disease of less-developed countries, but in the 1850s it was a daily fact of life and death for people in London. John Snow, a physician, became curious about the distribution of cholera cases in one neighborhood. He began noting on a city map the places where cholera occurred. Eventually, Snow’s effort allowed him to correlate instances of the disease to the use of a contaminated well on Broad Street. Armed with this information and with the powerful graphic demonstration of his map, Snow persuaded the city to close the well. The outbreak ceased, confirming Snow’s thesis that cholera was spread via contaminated water.

Snow recognized the importance of distributing his findings and the maps underlying them to a mass audience. His 1855 book, *On the Mode of Communication of Cholera*, which included reproductions of his original maps, is considered a seminal work in public health science and communication.⁵

Contaminated water also was the topic of an early geographic investigation by a journalist in the United States. Jacob Riis, working for *The Evening Sun* in New York, is best remembered today for his groundbreaking studies of the physical and social conditions of that city’s slums with both his words and photographs. However, Riis also was one of the first to prove the power of geography as a tool of investigative journalism. In the process, he quite possibly became the first environmental reporter. In 1891 Riis came across laboratory reports in a city office that logged high levels of nitrates in New York’s drinking water. Riis understood that the presence of nitrates indicated biological contamination, perhaps from sewage. Unless someone isolated and corrected the

⁴ The literature on journalism’s economic woes grows exponentially on a daily basis. Among the best recent studies is by the Project for Excellent in Journalism, “[The State of the News Media 2009](#),” March 2009. See also David Carr, “[Mourning Old Media’s Decline](#),” *New York Times*, Oct. 29, 2008; Julia M. Klein, “[Dark Days](#),” *Columbia Journalism Review*, March/April 2007; John Nichols and Robert McChesney, “[The Death and Life of Great American Newspapers](#),” *The Nation*, March 18, 2009; and Carl Sessions Stepp, “[Maybe it is time to panic](#),” *American Journalism Review*, April/May 2008.

⁵ Sandra Hempel, *The Strange Case of the Broad Street Pump: John Snow and the Mystery of Cholera* (Berkeley: University of California Press, 2007); see also [Snow’s cholera maps](#).

contamination's source, a massive public health crisis might ensue, causing many deaths. Riis surmised that the sources might be in the watershed that provided the city's water. He traveled up the Hudson River to identify locations of offending sources in headwaters and tributaries that contributed directly to the problem. He found that towns upstream of New York City were dumping garbage and untreated sewage into the Hudson and its tributaries.

In August 1891 *The Evening Sun* published Riis's initial story, which he later called his "biggest scoop." In this and subsequent articles, Riis used his geographic findings to force changes in sanitation practices that still save lives today. Significantly, city officials had merely filed the drinking-water reports. It took Riis' imagination, legwork, and understanding of geography's role in public health to turn data into reform. Riis demonstrated how journalists can combine the use of accurate data and reporting skills to produce public policy insights that are uniquely compelling and valuable.⁶

Not long after Riis' work in New York, the intersection of health and geography also became a major factor in one of the first important empiric studies of the living conditions of black Americans. Scholar, sociologist, and activist-reformer W.E.B. DuBois gathered demographic and health data to describe conditions in Philadelphia's Seventh Ward. By the late nineteenth century, Philadelphia was plagued by crime, disease, and corrupt and inefficient government. White politicians blamed the black residents of the Seventh Ward for the entire city's problems, suggesting that the residents' inherent racial inferiority made reform or even improvement impossible.

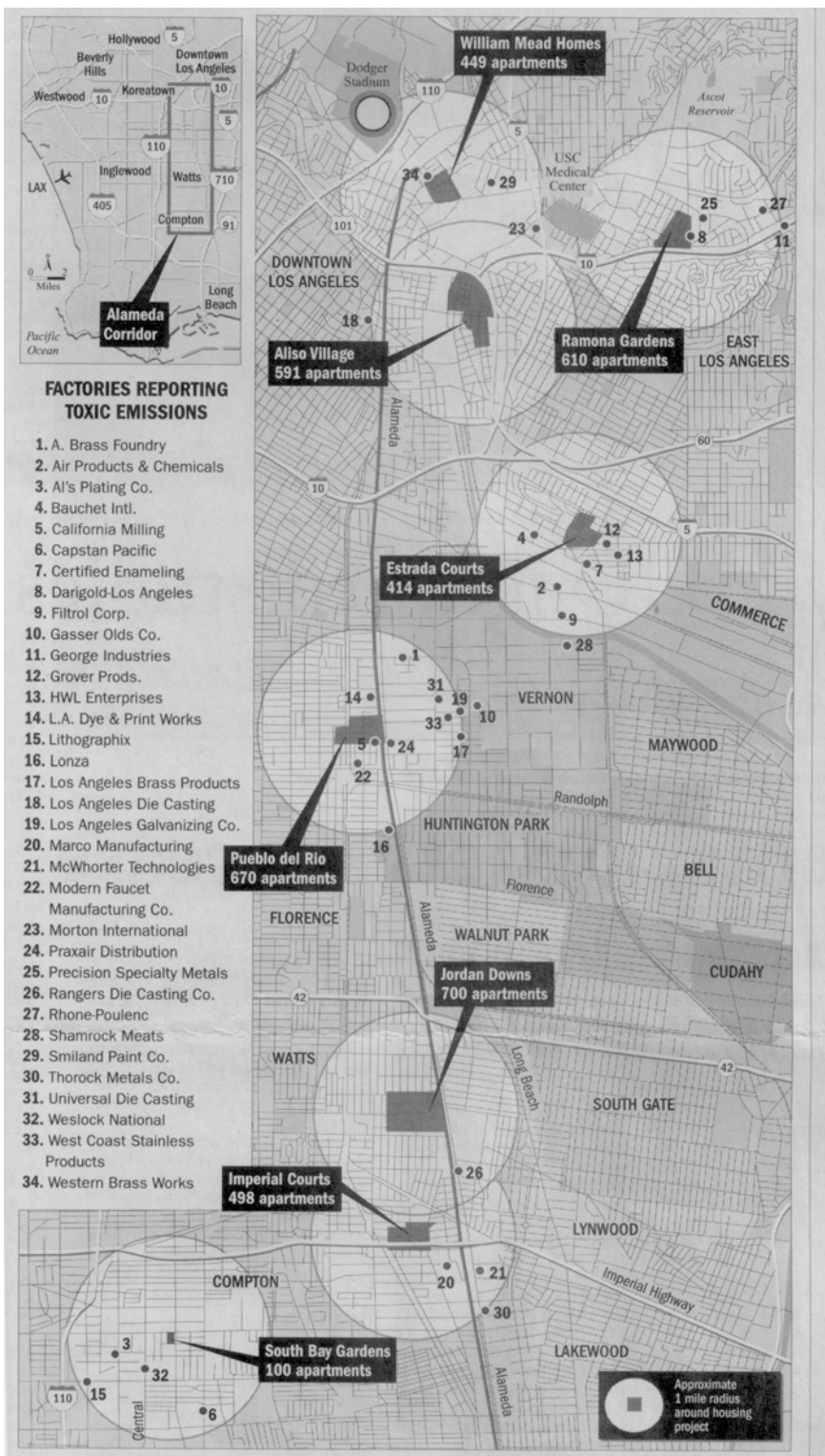
DuBois compared health, environmental, and economic conditions in the Seventh Ward with those of other Philadelphia neighborhoods. He found the Seventh Ward's problems to be a function of social inequity and discrimination imposed by dominant forces rather than of innate racial characteristics of the residents. DuBois did the work under a contract with progressive Philadelphia interests, but he also chose to publish his findings in 1899 for a mass audience as *The Philadelphia Negro*. Although DuBois did not make extensive use of mapping to make his comparisons, his application of empiric methods to address differences between neighborhoods provides an early indication of geography's potential for increasing public understanding of complex issues, especially those involving public health.⁷

The fact that Snow, Riis, and DuBois conducted their studies without advanced technological aids suggests it is the intellect that is the inspirational source of groundbreaking work illustrating health disparities. Technology, however, frees the intellect to explore new areas in previously unimaginable ways. It is fascinating to consider how the availability of GIS might have allowed these nineteenth-century visionaries to enhance their findings with levels of nuance and sophistication. Today's journalists are just starting to bring that vision to fruition, as recent case studies illustrate.

⁶ Louise Ware, *Jacob A. Riis: Police Reporter, Useful Citizen* (New York: D. Appleton-Century Co., 1938); Jacob Riis, "Sewage in Croton Water: Health Officers Concerned about Their Discovery," *New York Evening Sun*, Aug. 1, 1891; additional stories and editorials appeared between Aug. 2 and Sept. 21, 1891.

⁷ W.E.B. DuBois, *The Philadelphia Negro: A Social Study* (Boston: University of Pennsylvania, 1899); see also [The Philadelphia Negro](#).

Case Study I: *The Dallas Morning News*' "Toxic Traps" Series (2000)



Linking Public Housing, People, and Pollution

The federal government's plan sounded like a godsend. Even its name—HOPE VI—promised a better day.⁸

The Clinton administration unveiled the ambitious urban revitalization program in 1993. The U.S. Department of Housing and Urban Development (HUD) would spend billions of dollars to rebuild many of the nation's worst public housing projects. Officials said HOPE VI would replace taxpayer-supported slums with first-rate housing in revitalized neighborhoods. Two reporters with *The Dallas Morning News* were not so sure.

Earlier in 1993 Craig Flournoy and Randy Loftis had examined another HUD renovation plan. Officials promised it would transform the sprawling West Dallas public housing project—which a federal judge had once described as “a gigantic monument to segregation and neglect”—into an urban oasis. For Flournoy, who covered low-income housing, and Loftis, the newspaper's environmental reporter, the \$67 million plan raised several red flags. The project was located across the street from an abandoned lead smelter. The federal government had identified the neighborhood as a potential Superfund site. In their series, “Race and Risk,” the reporters said the plan would reinforce racial segregation and force more than 1,000 poor black families to live in the city's most polluted neighborhood. Within a few months, then-HUD secretary Henry Cisneros killed the renovation project. In its place, the agency provided vouchers to poor minority families allowing them to choose where to live.⁹

The West Dallas plan involved a single project; hundreds of poor, African American families; and \$67 million. HOPE VI would encompass more than one hundred projects, tens of thousands of families, and billions of dollars, but the question was the same: Was the government exposing poor families to environmental risk? Flournoy and Loftis decided to find out. To do so they needed GIS and two national databases, one for potential environmental hazards, and the other for identifying the locations of the country's federally subsidized housing projects.

The U.S. Environmental Protection Agency (EPA) readily complied. The agency provided two databases at no charge. One—the Toxic Release Inventory or TRI—includes all factories that release potentially harmful chemicals into the air, ground, or water. The database lists the name of each chemical and the amount released. Factory owners provide the longitude and latitude of their facilities. The other database—the Comprehensive Environmental Response, Compensation, and Liability Information System or CERCLIS—identifies hazardous waste sites. The EPA provides the longitude and latitude for each site. Obtaining the environmental data was relatively easy. Securing the housing data would take years.

Flournoy and Loftis asked HUD headquarters to provide a database showing the longitude and latitude for each public housing project and Section 8 development.¹⁰ The reporters also asked for demographic data including the racial makeup of each project.

⁸ The author of this chapter was one of the lead reporters in this case study. The information comes from his notes and other documents.

⁹ Craig Flournoy and Randy Loftis, “Race and Risk,” *The Dallas Morning News*, May 9 and 10, 1993.

¹⁰ In this case, the reporters sought geographic information on project-based Section 8 complexes, meaning those where the federal government funded the construction or rehabilitation of the apartments in addition to providing rent subsidies. The reporters did not include Section 8 vouchers and certificates because these are not tied to specific apartments.

HUD officials said they knew of no such database. Flournoy and Loftis found otherwise. They learned HUD had such a database and filed a federal Freedom of Information Act request asking for it. The letter included the name of the database. Months passed. HUD eventually provided two databases. One included geographic data for virtually all Section 8 developments, but the other covered only 60 percent of public housing projects. It was not comprehensive, but it was a start.

The next step was to crunch the numbers. The reporters turned to the Bruton Center in the school of Social Sciences at the University of Texas at Dallas. Social scientists there readily agreed to help. Flournoy and Loftis had several questions. Two were critical: What was the extent of the environmental risk, and were African Americans and other minorities disproportionately affected? In other words, what was the number and percentage of projects located within one mile of a hazardous waste site or a factory spewing toxic waste into the air? And what was the racial makeup of these projects?

The Bruton Center used ArcInfo, a relatively expensive program, to address these questions. Among the initial findings: Approximately 30 percent of the subsidized housing developments were within one mile of a toxic waste site. This suggested there was a national problem, but Flournoy and Loftis needed more information. They wanted a comprehensive database, one that included the locations of all public housing projects and racial data. It would take years, but HUD eventually provided the database. EPA readily agreed to provide up-to-date statistics. In the second round of analysis, the reporters asked the Bruton Center to focus on subsidized housing within one mile of factories spewing toxic air pollution. The reason: Environmental experts said toxic air pollution poses the greatest potential threat to nearby residents. The results were stunning.

More than 870,000 federally assisted apartments were located within one mile of factories spewing toxins into the air. Minority families were disproportionately at risk. Of the mostly minority projects, one in two was located within a mile of a toxic factory. For mostly white developments, the figure was one in three. The HOPE VI program fared no better. HUD had approved the renovation of 131 projects. Half were located within a mile of a toxic factory. Most were overwhelmingly minority.

GIS was invaluable in establishing the framework of the story and identifying cities where environmental risks appeared greatest. This gave the reporters more time to pursue other questions. What was life like in the shadow of a toxic factory? What had scientists found? The reporters obtained studies conducted by environmental experts, toxicologists, and urban geographers documenting an increased risk of cancer and other diseases at several HOPE VI projects. In New Orleans, HUD approved \$62 million to rebuild the Desire housing project despite a joint federal–state study that found women living in or near Desire had a 60 percent higher incidence of breast cancer than those in a surrounding three-county area. In Chester, Pennsylvania, HUD committed \$40 million to rebuild three projects. An EPA study said Chester residents faced unacceptable risks of cancer, kidney, and liver disease as a result of toxic air emissions from a solid-waste incinerator, a sewage incinerator, two oil refineries, and other factories. “It’s almost like a bad joke,” said Peter Kostmayer, the EPA official who ordered the study. “The good news is that you get better housing. The bad news is that you are more likely to die of cancer.” Project residents, mostly black and Latino, were not amused. In Chester, Ella

Thompson watched her children and grandchildren battle severe asthma. A trash truck killed one grandson. “Either we’re slowly poisoned or run over like stray dogs,” she said.

The Dallas Morning News published “Toxic Traps,” a three-part series, in October 2000. GIS allowed the reporters to uncover health disparities. It also was instrumental in graphically displaying findings. One example was the Alameda Corridor, an industrial stretch in Los Angeles. The map identified the locations of eight public housing projects and 34 toxic factories including lead smelters, chrome-plating shops, rendering plants, and hazardous-waste processors. Four thousand mostly Latino and black families live in the projects. At William Mead, scientists discovered lead, arsenic, and cancer-causing chemicals in the soil of the playground. GIS also played a prominent role on the newspaper’s website. It included an interactive tool that allowed a user to input an address and obtain a list of all toxic factories and waste sites within a specified distance. A link for each factory and waste site provided detailed information.¹¹

Current and former EPA officials said the findings in New Orleans, Chester, and other cities demanded attention. Some former housing officials called for broader action. Cisneros, who stepped down as HUD secretary in 1997, said the results were “a national tragedy.” Elizabeth Julian, HUD’s top civil rights lawyer during President Clinton’s first term, said federal housing officials knowingly rebuilt projects in toxic neighborhoods because it was politically expedient. Those still in charge at HUD had a different attitude. For years, they stonewalled the reporters’ requests for data. After finally providing the information, then-HUD secretary Andrew Cuomo refused for months to be interviewed. Once the series began, HUD issued a press release mocking the idea that toxic factories threatened poor minority neighborhoods, noting “there are EPA-monitored sites within a mile of the White House, Disneyland and the United Nations.” In the end, Cuomo and his agency did nothing—with one exception. Shortly before publication of “Toxic Traps,” HUD launched an interactive search tool on its website that allowed a user to map the proximity of any address, including public housing, to environmental hazards.¹²

The reporters on this project took away several lessons. Two were critical. First, “Toxic Traps” demonstrated that GIS can be a powerful investigative reporting tool. Second, reporters should realize the implications of taking on enterprise stories that are national in scope—the broader the canvas, the less likely change will occur. “Race and Risk” and “Toxic Traps” raised the same fundamental question: Should the government use its resources to force low-income black and Latino families to live in public housing projects in neighborhoods that are poor, largely minority, and environmentally hazardous? When applied to a single project, Cisneros and HUD said no. When applied to projects from Pennsylvania to Louisiana to California, Cuomo and HUD chose to ignore the question.

¹¹ Craig Flournoy and Randy Loftis, “Toxic Traps,” October 1–3, 2000, *The Dallas Morning News*. The first day examined the national findings. The second day concentrated on the HOPE VI program. The third day focused on racial and economic segregation.

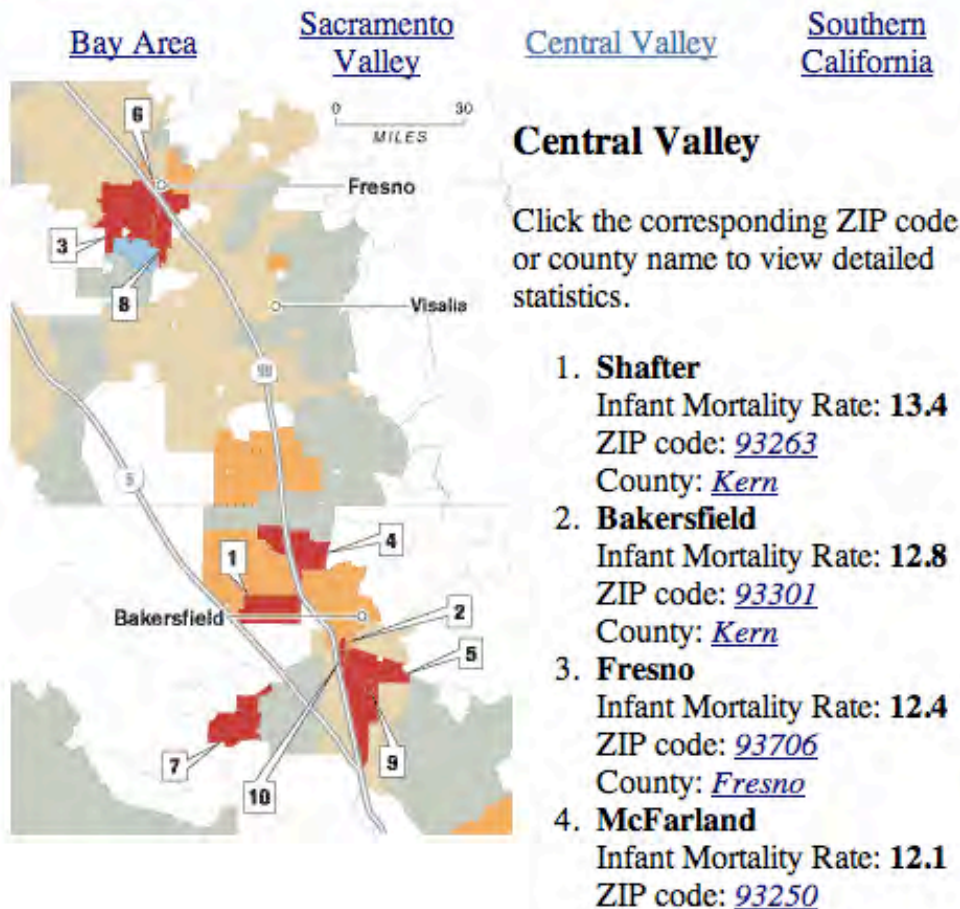
¹² The website remains available today. See <http://egis.hud.gov/egis>.

Case Study II: *San Francisco Chronicle's* “Too Young to Die (2001)

TOO YOUNG TO DIE

[Home](#) | [Regional Hot Spots](#) | [Local Statistics](#) | [About the Data](#)

Regional Hot Spots



Number of infant deaths per 1,000 births, by ZIP code, 1992 through 2001

Samantha was Erin McCormick’s first child. Shortly after she was born, McCormick would lay awake at night listening to her baby breathing and pondering a parent’s worst nightmare: How frequently do newborns die? Are some babies more likely to die than others? McCormick, a reporter with the *San Francisco Chronicle*, decided to find out. She teamed up with Reynolds Holding, another *Chronicle* reporter, and they began the ambitious task of examining infant mortality rates in different parts of California. Their approach challenged conventional wisdom. So did their findings. In each case, the key to their work was geography.

San Francisco would seem an unlikely setting for two journalists to examine the issue of infant mortality. Among large U.S. cities, San Francisco has the lowest infant mortality rate, which is defined as the death of a liveborn child during the first year. In

addition, the infant mortality rate in California is significantly lower than the national average. Still, McCormick and Holding wanted to know what disparities were hidden within these figures. In other words, which areas had the highest infant mortality rates? They began by obtaining California's birth and death records and sorting them by the state's ZIP codes, which totaled more than 1,400. They also consulted experts in infant mortality and health statistics. Some said a micro-approach would corrupt their findings. "Initially, a lot of experts dismissed this project," said McCormick. "They said you can't look at a specific area and come up with something that's meaningful." Other scholars endorsed their approach provided they take certain precautions. To avoid short-term anomalies that might skew the results, McCormick and Holding examined infant mortality rates over a ten-year period. They also eliminated ZIP codes with very small numbers of births. McCormick, a specialist in computer-assisted reporting, did the mapping using ArcView. The results were surprising.¹³

Of the ten California ZIP codes with the highest infant mortality rates, four were in Kern County, a largely agricultural area with a substantial Latino population. Latinos typically have a very low infant mortality rate. When they visited Kern County, McCormick and Reynolds found a toxic gumbo of smog, agricultural waste, and dangerous chemicals that polluted much of the air and water. "You drive across the county line and you can't breathe," said McCormick. "You knock on doors and find people are sick." Electronic mapping also disclosed that babies were significantly at-risk in some inner-city areas. The *Chronicle* study found a southcentral Los Angeles neighborhood had California's worst infant mortality rate: 13.8 deaths for every 1,000 births, or more than twice the statewide average of 6.1. Of the 66 babies who died, 56 were African American. GIS was instrumental in allowing the reporters to actually see the geographic clustering of ZIP codes with the highest infant mortality rates. "It quickly allowed us to pinpoint where the problem spots were so that we could go on to far more difficult questions such as why are these problems spots," said McCormick. Armed with this knowledge, she and Holding spent months interviewing nurses, community leaders, beat cops, preschool teachers, environmental activists, teen-parenting counselors, and families whose lives had been touched by the silent crisis. The reporters pursued many questions but kept returning to one—Why? As it turned out, the answer was there for anyone who took the time to look.¹⁴

The *San Francisco Chronicle* published "Too Young to Die," a five-part series, in October 2004.¹⁵ Like the "Toxic Traps" stories in *The Dallas Morning News*, the heart of

¹³ Erin McCormick, "[Infant Deaths](#)," *The IRE Journal* (Sept./Oct. 2005); "[How the series](#) was researched and reported," *San Francisco Chronicle*, Oct. 3, 2004. The reporters used several other measures to ensure accuracy. They excluded stillbirths and miscarriages so the analysis would consider only the survival rate of liveborn babies. They checked for changes in ZIP code boundaries to ensure year-to-year comparisons remained valid. They used a chi-square test to check the statistical significance of the final results. All areas featured in the series were found to have statistically significant differences from the statewide infant mortality rate.

¹⁴ Flournoy phone interview with Erin McCormick, March 12, 2009.

¹⁵ Erin McCormick and Reynolds Holding, "Too Young to Die," *San Francisco Chronicle*, Oct. 3–7, 2004; see www.sfgate.com/infantmortality. Installments included an introductory overview that reported major findings, a look at the role of environmental hazards in infant mortality, a study of Fresno's efforts to reduce its infant mortality rate, an examination of the state's flawed indigent health care system, and a profile of the medical workers at a children's hospital who deal with infant health risks daily.

the *Chronicle*'s "Too Young to Die" series lay in the disparity that electronic mapping helped to uncover. The *Chronicle*'s initial story focused on Bayview-Hunters Point in San Francisco. In a city renowned for its low infant mortality rate, babies born in that neighborhood had no better chance of survival than those born in Bulgaria or Jamaica. Indeed, babies born in Bayview-Hunters Point are 2.5 times more likely to die in their first year than those in other parts of the city. Its residents are poor and overwhelmingly minority. But researchers said those factors do not explain the area's high infant mortality rate. Rather, they pointed to the cumulative effect of living in an unhealthy community afflicted by crime, drugs, slum housing, joblessness, and pollution. "Neighborhood conditions may be so onerous that they literally get under residents' skin," said Jennifer Culhane, a health researcher, noting that these conditions are "deeply rooted in social inequities." McCormick and Reynolds found much the same problem in heavily polluted rural areas of Kern County. Health experts, who had not previously studied ZIP codes, said they were unaware of the high death rates among Latino babies. "This problem wasn't known before," said Kenneth Clay, a professor at the University of California at Berkeley who has studied air pollution and infant death. "It raises real questions about what the causes are."

The reporters used electronic mapping to display their findings. A color-coded map of California identified four "hot spots" with the state's worst infant mortality rates. In the online version, a user could click on one of these four areas and get a detailed map showing the ZIP codes and infant mortality rates. The *Chronicle* also provided an interactive web feature that allowed readers to retrieve infant mortality data on their community.

From a journalistic standpoint, the "Too Young to Die" series demonstrates the power of GIS. It allowed the reporters to see where babies were most likely to die in their first year and to ask fundamental questions: Why these ZIP codes? And why are these ZIP codes clustered in certain areas? Another lesson of the *Chronicle* series is the importance of pursuing old questions with fresh eyes. Most policymakers and health care professionals in the United States had long believed they knew how to reduce the nation's infant mortality rate. For two decades, they focused on medical care and technology. McCormick and Holding came up with a different answer. A high infant mortality rate was not, the reporters found, the result of a lack of access to health care or inadequate maternal nutrition. It was a social problem. As Dr. Carol Korenbrot, a health expert at UC-San Francisco, put it, "We did everything we were supposed to do in medicine to improve birth outcomes. That we mostly failed says a lot about our ignorance." The reporters also were dismayed to learn that high infant mortality resulted from systemic social problems. "We wanted to come up with a single cause—a 'smoking gun'—and it really wasn't possible," said McCormick.¹⁶

To their credit, McCormick and Holding made clear in their series that sweeping changes were needed to address high infant mortality levels in distressed neighborhoods. That has not happened. Some suggested that defining the problem as a systemic one was quixotic. Dr. Karla Damus asked rhetorically, "There's something there, but can you fix it?" Yes, but only if one is willing to recognize the problem. The famous London fogs of the nineteenth century were, in most cases, coal-generated pollution that killed as many

¹⁶ Flourney interview with McCormick, March 12, 2009.

as 1,000 Londoners in a single week. London, then the most advanced industrialized city in the world, had the expertise to detect the sources of these deaths if health experts had looked, but for decades they did not. Why? Historian Barbara Freese suggests it was because arrogance had replaced the spirit of inquiry. "Perhaps they didn't look because they had been living for so long in such a fog of their own making that they simply took it for granted," Freese writes. "They stopped asking the harder questions about the impact this unnatural new world they'd created so energetically was having on its human inhabitants." McCormick and Holding kept asking.¹⁷

Case Study III: The *Chicago Sun-Times* "Sex Offenders in Nursing Homes" (2005)

SEX OFFENDERS IN NURSING HOMES

This list of 100 people was compiled with help from two nursing home watchdog groups, A Perfect Cause in Oklahoma City, Okla., and Illinois Citizens for Better Care. Addresses for nursing homes in Illinois were cross-checked with the state's sex offender registry. The information below is based on the most recent version of the state database and does not include other criminal history information.

This list includes not only offenders living in licensed state nursing homes, but similar facilities distinguished by the label "NURS" in the sex offender registry.

Five offenders are labeled "NC," meaning they haven't re-registered with the state in possible violation of the law. They also might have moved out. The homes are listed by the number of offenders in them as of last week. The youngest residents in each home are listed first.

1) Sharon Health Care, Peoria			13) California Gardens Nursing & Rehab, Chicago		
Timothy F. Mann	23	Agg. crim. sex abuse, victim < 9	Walter Moore	38	Crim. sex assault, victim < 18
Elrem Lewis	43	Agg. crim. sex assault, victim < 18	Roy Aquirre	51	Agg. crim. sex assault
John C. Carpenter	52	Agg. crim. sex assault, victim < 18	14) Monroe Pavilion, Chicago		
Danny W. Williams	63	Agg. crim. sex assault, victim < 13	Cleveland Clay	51	Indecent solicitation of child
Hayden L. Powers	66	Agg. crim. sex abuse, victim < 13	Stephen L. Dubinsky	56	Agg. crim. sex assault
Harold L. Freed	68	N/A, victim < 18	15) Community Care Center, Chicago		
Theodore Holt	69	N/A, victim < 18	Burnia Truman	45	Agg. crim. sex assault
Serafin Stasch	92	Agg. crim. sex assault, victim < 18	Leroy Thomas	76	Agg. crim. sex assault, victim 9-13
2) Southview Manor, Chicago			16) Boulevard Care Center, Chicago		
Victor Richardson	48	Agg. crim. sex assault	Eddie T. Robinson	43	Agg. crim. sex assault
James Brown	48	Crim. sex assault, victim < 18	Anthony Gunn	58	Agg. crim. sex assault
John T. Spurr*	57	Agg. crim. sex abuse, victim 13-16	17) Rainbow Beach Nursing Center, Chicago		
Roger Stewart*	58	Crim. sex assault	Roderick L. McKay (NC)†	39	Agg. crim. sex abuse, victim < 13
3) Central Plaza Residential Home, Chicago			Jeffrey Warren	46	Agg. crim. sex assault
Corey Rollins (NC)‡	32	Agg. crim. sex assault, victim < 18	18) Chevy Chase Nursing & Rehab, Chicago		
Anton V. Jokich	35	Agg. crim. sex abuse, victim < 13	Eugene Carter (NC)‡	49	Agg. crim. sex assault
Kalven Shaw	40	Child abduction	Estes R. Bunch	61	Agg. crim. sex abuse, victim < 13
Fred Matthews	51	Agg. crim. sex assault	19) Midway Neurological & Rehab (formerly Century Village), Bridgeview		
4) Lydia Healthcare, Robbins			Louis White	34	Agg. crim. sex abuse, victim < 13
Lawrence M. Bonner	24	Agg. crim. sex abuse, victim < 9	Ricardo Gist	36	Agg. crim. sex abuse, victim 13-16
Marc R. McNeil	28	Agg. crim. sex abuse, victim < 18	20) Emerald Park Health Care, Evergreen Park		
Frederick Young	50	Agg. crim. sex assault, victim < 9	Douglas Hollis	46	Agg. crim. sex assault, victim < 13
Jay C. Parker	50	Agg. crim. sex assault	Morris Hunt	59	Predatory crim. sex assault, victim < 18
5) Crestwood Terrace, Crestwood			21) Alden Valley Ridge Rehab, Bloomingdale		
Robert L. Burton	64	Agg. crim. sex assault, victim < 13	Donald Doyle	62	Agg. crim. sex assault, victim < 13
Eugene Condon	77	Agg. crim. sex assault, victim < 13	Robert K. Wells	67	Agg. crim. sex abuse, victim < 13
Howard W. Wilson	81	Agg. crim. sex assault, victim < 18	22) Countryside Healthcare Center, Dolton		
Joseph DeRatello	84	Agg. crim. sex abuse, victim < 13	William Wilkes	49	Crim. sex assault
6) Barnham Healthcare, Burnham			Orlando Moore	57	Agg. crim. sex assault
Timothy G. Midway	38	Crim. sex assault	23) Jackson Heights Nursing Home, Farmer City		
Martin Sheehy*	40	Agg. crim. sex assault, victim 13-16	Herald E. Shine	83	Agg. crim. sex abuse, victim < 13
Richard A. Korem	48	Deviate sex assault	Clarence A. McNutt	85	Agg. crim. sex abuse, victim < 13
Terry Bean (NC)	56	Agg. crim. sex assault	24) Alden Morrow Rehab, Chicago		
7) Chestnut Corner Sheltered Care, Louisville			Richard Butler	62	Agg. crim. sex assault
John E. Cousert	46	Agg. crim. sex abuse, victim < 18	25) Wilson Care, Chicago		
Rodney R. Brooks	46	Agg. crim. sex assault, victim 9-13	Robert Shuetzger	48	Agg. crim. sex abuse, victim 13-16
Gary L. Gregor	48	Agg. crim. sex assault, victim < 18	26) Columbus Manor Residential Care, Chicago		
David I. Sunderman	62	Crim. sex assault, victim 13-17	Edward Stevenson (NC)	39	Crim. sex assault
8) Arbour Health Care Center, Chicago			27) Monroe Pavilion, Chicago		
Lynn Eichberst	25	Agg. crim. sex abuse, victim < 18	Kenneth Tellez	40	Agg. crim. sex assault, victim < 13
Dennis James Jedink	40	Agg. crim. sex assault	28) Balmoral Home, Chicago		
James R. Carroll	58	Agg. crim. sex abuse, victim < 18	Keith L. Murphy	36	Agg. crim. sex abuse, victim 13-16
9) Garden View Nursing & Rehab Center, Chicago			29) Avenue Care Center, Chicago		
Henry Blanks (NC)	56	Agg. crim. sex abuse, victim < 18	Larry Durr	52	Crim. sex assault
Robert Brent	57	Agg. crim. sex assault, victim < 18	30) Mid America Care Center, Chicago		
William Davis	64	Pred. crim. sex assault, victim < 18	James Joyce	61	Agg. crim. sex assault, victim < 18
10) Chicago Ridge Nursing Center, Chicago Ridge			31) Winston Manor, Chicago		
Anthony Cooney	39	Agg. crim. sex abuse, victim < 18	Bobby Woodrum	64	Agg. crim. sex assault, victim < 9
Michael Locke	43	Crim. sex assault, victim < 18	32) Genesis Place Supportive Living, Evergreen Park		
Michael Kurrn	46	Crim. sex assault, victim < 18	Thomas Kolze	61	Agg. crim. sex assault, victim < 13
11) South Lawn Sheltered Care, Bunker Hill			Agg. crim. sex assault, victim < 13		
Steven Louis Taylor	50	Crim. sex assault, victim < 18	33) Thornton Heights Terrace, Chicago Heights		
Larry R. Cherry	51	Agg. crim. sex abuse, victim 13-16	Duane Vysther	39	Agg. crim. sex assault, victim < 18
Robert L. Guild	55	Agg. crim. sex abuse, victim 13-16	34) Lake Cook Terrace Nursing Center, Northbrook		
12) Peshing Estates, Decatur			John T. Graham	74	Pred. crim. sex assault, victim < 18
Franso R. Evans	42	Agg. crim. sex assault	35) Glenwood Healthcare & Rehab, Glenwood		
Andrew M. Edmondson	48	Crim. sex assault	John T. Hundleby	34	Crim. sex abuse, victim < 18
Daniel D. Willis	53	Agg. crim. sex abuse, victim < 13	36) Hillcrest Healthcare Center, Joliet		
			Darrell L. Hundleby	34	Crim. sex abuse, victim < 18
			37) Pinnacle Health Care, Waukegan		
			John Andrew Cody	32	Agg. crim. sex assault, victim < 13

38) Care Centre of Champaign, Champaign			39) Palm Terrace, Mattson		
Stephen P. Barker	59	Agg. crim. sex assault, victim < 18	Dennis Keith Cook	40	Crim. sex abuse
40) Vandalia Terrace, Vandalia			41) Cardinal Healthcare, Energy		
Leo Cozad Jr.	77	Agg. crim. sex abuse, victim < 13	Jack H. Hipsler	50	Agg. crim. sex abuse, victim < 18
42) Heritage Manor, Litchfield			43) Coventry Village, Sterling		
Carl E. Lucas	87	Agg. crim. sex assault, victim < 18	Victor Martinez	54	Agg. crim. sex abuse, victim < 18
44) Mommec Meadows Nursing, Mommec			45) Flora Health Care Center, Flora		
Allan McKay	62	Agg. crim. sex assault	John D. Osborn	64	Agg. crim. sex abuse, victim < 18
46) Fairview Nursing Plaza, Rockford			47) Summer Care & Rehab Center, Summer		
Anthony L. Riley	50	N/A, victim < 18	Keith V. Scott	77	N/A, victim < 18
48) Metropolis Health Care, Metropolis			49) Prairie View, Lewistown		
Phillip Harmon Sharp	57	Crim. sex assault	Daniel J. White	62	Crim. sex assault, victim < 18
50) Spanish Oaks Center, Anna			51) Cardinal Hill Healthcare, Greenville		
Frank E. McCormick	49	Agg. crim. sex assault, victim < 13	Thomas Lee Allen	47	Agg. crim. sex abuse, victim < 18
52) Samuel Shapiro Developmental Center, Kankakee			53) Marks Sunset Manor, Olney		
Paul N. Montecinos	34	Agg. crim. sex assault	Robbie James Dennison	30	Agg. crim. sex abuse, victim < 13
54) Patterson House, Sullivan					
Patrick D. Doggett	37	Agg. crim. sex abuse, victim < 13			

*Nursing home says offender has moved from facility. State lists home as last known address.
 †Deceased offenders who are moving from Emerald Park Healthcare to Evergreen Park.

Identifying the Sexual Predator Next Door

Each year thousands of families place parents, grandparents, and other loved ones in nursing home care. Many of the newly admitted residents suffer from physical and mental disabilities such as dementia and Alzheimer's disease. Above all, relatives and

¹⁷ Barbara Freese, *Coal: A Human History* (Cambridge, Mass.: Perseus, 2003): 100.

friends hope their loved ones are safe. But what if they are not? Two reporters for the *Chicago Sun-Times* combined computer-assisted reporting and intensive document searching to answer this question. Their research uncovered a statewide problem that threatened one of society's most vulnerable groups.

The advent of GIS and the Internet has revolutionized the way law enforcement tracks sex offenders. Recognizing the potential of the new technology, all 50 states passed laws that require sex offenders to register with local or state police agencies. The federal Adam Walsh Child Protection and Safety Act of 2006 led to the creation of a national sex offender registry. State governments created websites that allowed users to track where sex offenders live. In addition, the U.S. Department of Justice started a national online data registry for the tracking of sex offenders. Newspapers and local television stations built on this work, either linking to government-sponsored websites or creating their own so that residents in a community could search their neighborhoods for paroled sex offenders.¹⁸

In recent years, many news organizations have used GIS to map the residences of sex offenders and cross reference this information with the locations of vulnerable populations. In 2005 *The (Toledo) Blade* used Ohio's registry to show that more than 100 sex offenders lived within 1,000 feet of schools in Lucas County in violation of state law. In 2006 reporters with *The (Wilmington) News Journal* found hundreds of instances where sex offenders were living within 500 feet of day-care centers in Delaware. In 2007 the ABC affiliate in Phoenix found more than 100 sex offenders living within 1,000 feet of schools and day-care centers in Maricopa County in violation of residency laws. Each of these investigations measured proximity to possible danger in hundreds of feet. The *Chicago Sun-Times* found danger lurking in far more intimate spaces.¹⁹

The impetus for the story came from Wes Bledsoe, founder of A Perfect Cause, a nonprofit watchdog group dedicated to improving nursing home care and treatment of the elderly. Bledsoe performed the initial computer-assisted reporting work, cross-referencing nursing home addresses with state sex offender registries. His research showed Illinois ranked as one of the top three among states with convicted sex offenders in nursing homes. In 2004 he passed along his findings and database to Lori Rackl, who covered health for the *Chicago Sun-Times*. Rackl shared Bledsoe's work with Chris Fusco, who covered state government for the *Sun-Times*. Rackl and Fusco, who are married, discussed the information. The more they talked about it, the more excited they got. "This is a story that had been sitting out there for years," said Fusco. "It was amazing to me that no one else had done it." They got to work.²⁰

Rackl and Fusco quickly learned that the database, largely based on government records, was riddled with errors. "Many of the people in Bledsoe's original database were no longer at the designated nursing home," said Fusco. "One of them was deceased." The reporters also determined that the number of paroled sex offenders in Illinois nursing homes was far larger than the figure in the state's sex offender registry. Verifying that

¹⁸ For the Justice Department Sex Offender website, see [online data registry](#); for each state's registry of sex offenders, see the [National Sex Offender Public Registry](#); for information on the 2006 federal law, see [Adam Walsh Act](#).

¹⁹ Robin Erb, "[Sex offenders found to bypass residency laws](#)," *The (Toledo) Blade*, Jan. 30, 2005; Andrew Tangel and Mike Chalmers, "Sex offenders loosely monitored in Delaware," *The News Journal*, Sept. 1, 2006; Lisa Fletcher, "Sex offenders not deterred by residency laws," KNXV-Phoenix, November 19, 2007.

²⁰ Flournoy interview with Chris Fusco, April 6, 2009.

each convicted sex offender was living in a specific nursing home was tough. Many nursing homes refused to release this information, citing medical confidentiality. Eventually, the Illinois attorney general's office provided the necessary records. Rackl and Fusco could have stopped there, but they wondered: Were parolees convicted of other violent crimes also living in nursing homes? According to Fusco, "Our thinking was: Is a sex offender living next door to grandma any better or worse than a convicted murderer?" He and Rackl decided to find out. Initially, state officials refused to provide this information. Eventually, the reporters learned the Illinois Corrections Department provided this information to the Illinois Public Health Department. The husband-and-wife team had pulled together the story in six weeks.²¹

The *Chicago Sun-Times* unveiled the findings in a two-part series that began on April 24, 2005. On the first day, the newspaper reported that at least 100 convicted sex offenders were living in 54 nursing homes in Illinois. A graphic listed the name of each nursing home and the name, age, and criminal history of each sex offender residing there. Half were 50 years of age or younger. One was 23. In several instances, caseworkers knowingly placed sex offenders in nursing homes because they thought the ex-convicts would not be a threat. In some cases, that assumption turned out to be tragically wrong. Thomas Kolze, twice convicted of molesting children, did his time in jail. Then a caseworker assigned him to the Bement Health Care Center in central Illinois. He was 61 years old. Less than six months later, an employee saw Kolze rubbing the thighs of a patient who was wheelchair bound and had Alzheimer's disease. Soon after this, another employee witnessed Kolze touching the chest of a woman with dementia. Kolze was returned to prison. After his release, Kolze moved into another Illinois long-term care facility where Rackl and Fusco found him. The problem was not confined to Illinois. The *Sun-Times* reported that a convicted sex offender in a Florida nursing home raped 77-year-old Virginia Thurston in her bed after wedging his wheelchair against the door to keep out employees. The rape was almost too much to bear for Sandra Banning, Thurston's daughter. "I put her in a nursing home to keep her safe, and my worst fear was realized," she said, adding, "I don't think they [convicted sex offenders] should be placed somewhere with vulnerable adults who are just like children." Bledsoe said putting convicted sex offenders in nursing homes is a recipe for disaster. "When you put predators in with the prey," he said, "somebody's going to get bit."²²

The second day of the series was equally powerful. The newspaper reported that in addition to sex offenders, another 61 people convicted of violent crimes were living in nursing homes in Illinois. Numerous state agencies were aware each time an ex-convict moved into a nursing home. Corrections department officials transferred many convicted felons directly from prison to nursing homes. Parole officers knew what was going on, and so did health department officials. At the time, the law did not require that Illinois nursing homes conduct criminal background checks on their residents. Rackl and Fusco found instances where a nursing home discovered a resident was a convicted felon but

²¹ Lori Rackl and Chris Fusco, "[Elderly Abuse](#)," *The IRE Journal* (Sept./Oct. 2005); Flourney interview with Fusco. The reporters also found sex offenders residing in other long term care centers not classified as nursing homes.

²² Lori Rackl and Chris Fusco, "100 sex offenders are living in Illinois nursing homes," *Chicago Sun-Times*, April 24, 2005. Sec. A, pgs 18–20.

failed to tell other residents because of privacy concerns. The web of silence meant virtually all the residents of the 404-bed Midway Neurological/Rehab Center in Bridgeview, a Chicago suburb, were unaware of the criminal history of 35-year-old Louis White. White had been convicted of second-degree murder and of sexually abusing a girl. When a *Sun-Times* reporter asked White if the other nursing home residents knew about his criminal past, he replied, “We don’t talk about that.”²³

Did the problem of convicted sex offenders in nursing homes have a disproportionate impact on poor minority neighborhoods or on nursing homes serving low-income residents? The *Chicago Sun-Times* did not examine this. However, Fusco said he and Rackl found few cases of paroled sex offenders and other ex-convicts living in high-end nursing homes. “Many of the nursing homes we looked at were operating with public health dollars,” he said. “Their clientele tended to be lower-income.” Reporters at three other newspapers used GIS to examine whether paroled sex offenders tend to cluster in impoverished neighborhoods. In each case, the answer was yes.²⁴

The *Chicago Sun-Times* series generated hundreds of responses. Within a matter of days, the newspaper received more than 200 emails and letters. Many citizens were outraged. The series also brought results. The newspaper had reported that Emerald Park Health Care Center in Evergreen Park, a Chicago suburb, housed ten convicted sex offenders, more than any other nursing home in the state. One month later, a judge ordered the closing of Emerald Park after Illinois Attorney General Lisa Madigan said its supervisors had shown “gross mismanagement.” The series also prompted systemic change. The state legislature approved a law requiring nursing homes to conduct criminal background checks on each resident. With this action, Illinois became the first state in the country to mandate such inquiries for all nursing homes. Some facilities had as many as 40 convicted felons under one roof. For Fusco and Rackl, the reforms were gratifying. So was the knowledge they had shone a light on information long kept from public view. “The biggest thing here was disclosure. The point is—you ought to know,” said Fusco. “We should not be vilifying these people but you should be on alert about where they are living.”²⁵

The *Chicago Sun-Times* series illustrates the importance of using electronic mapping as a building block rather than an end product. Rackl and Fusco built on Bledsoe’s work by cross-referencing sex offender registry information with state records and old-fashioned shoe-leather reporting. They expanded the project to include parolees

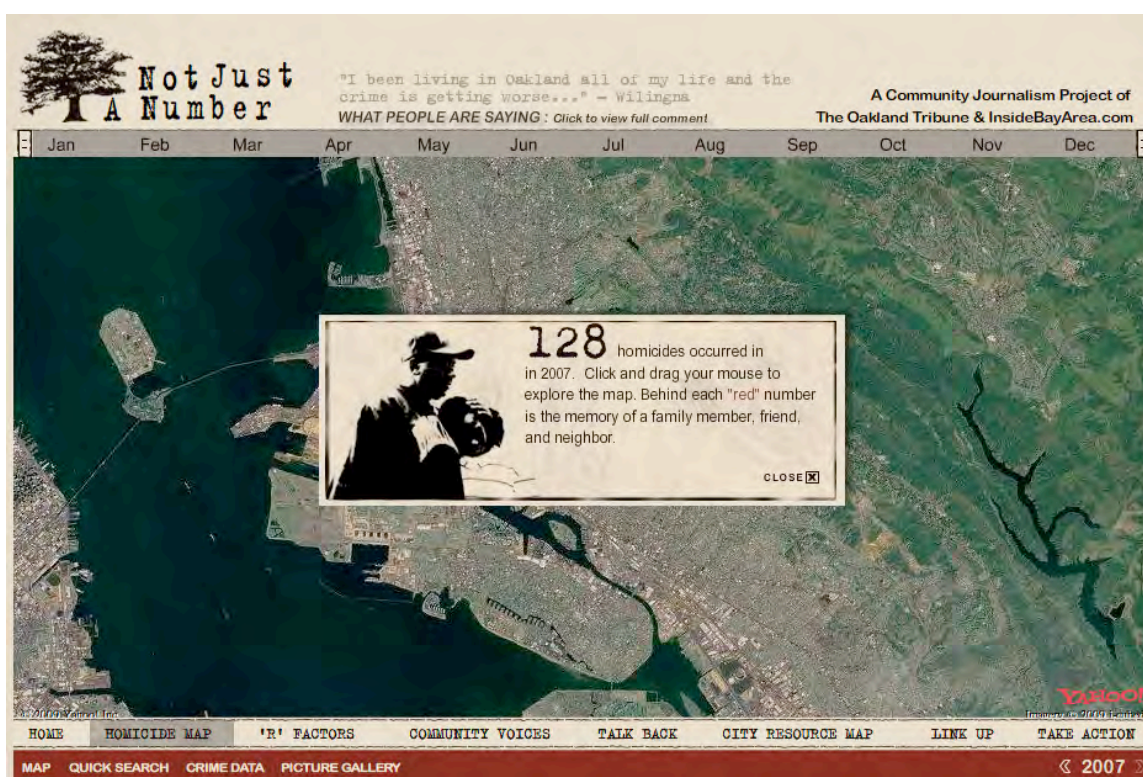
²³ Chris Fusco and Lori Rackl, “Vulnerable have little way of knowing parolees in midst,” *Chicago Sun-Times*, April 25, 2005, pgs. 30–31.

²⁴ The *St. Petersburg Times* used GIS to map the residences of registered sex offenders in three counties; it found most were clustered in poor neighborhoods. See Brady Dennis and Matthew Waite, “[Sex offenders clustered in impoverished areas](#),” *St. Petersburg Times*, May 19, 2005. A *Houston Chronicle* investigation turned up similar findings. See S.K. Bardwell, “[Sex offenders clustering in poor neighborhoods](#),” *Houston Chronicle*, Jan. 25, 2003. The *Chicago Tribune* reported that 10 percent of all paroled sex offenders in Illinois were living in a single ZIP code on Chicago’s South Side in a poor, predominantly African American neighborhood. See Carlos Sadovi, “10.5 percent of sex offenders put in single city ZIP code,” *Chicago Tribune*, Jan. 31, 2005.

²⁵ “Instant Messages: Quick e-mail responses to *Sun-Times* articles,” *Chicago Sun-Times*, April 26, 2005, pg. 34; Steve Patterson, “Judge orders nursing home to close,” *Chicago Sun-Times*, May 28, 2005, pg. 3. The first count, completed in 2006, found more than 1,000 ex-convicts in Illinois nursing homes. See Dean Olsen, “1,000 felons in nursing homes,” *Chicago Sun-Times*, July 21, 2006, pg. 1.

convicted of violent crimes other than sexual assault, and they did the lion's share of the work in six weeks. The resulting series provides clear evidence that combining computer-assisted reporting with intensive document searching can help journalists achieve bulletproof accuracy and significant results. Or as Fusco put it, "Our work is a classic example of being paranoid about getting the facts right." The *Sun-Times* series did not examine whether convicted sex offenders were concentrated in neighborhoods or nursing homes where most residents were poor or minority or both. That is likely a story for other journalists. In March 2009, the owner of the *Chicago Sun-Times* filed for bankruptcy protection. Fusco is unbowed. "There will always be a need for professional journalists," he said. "We will be here. The question is: how will we be here?"²⁶

Case Study IV: The *Oakland Tribune's* "Not Just a Number" Website (2007)



Reaching Out to the Community

Crime sells. That has long been a journalistic article of faith. Newspapers have used crime to pump up sales since the 1800s. Most of today's local broadcast news shows follow a similar formula: "If it bleeds, it leads." It was just a matter of time before online journalists discovered crime. Among the pioneers was Adrian Holovaty, a freelance journalist and web producer. In 2005 Holovaty launched *ChicagoCrime.org*, a mashup that combined easy-to-read maps with crime statistics. The mainstream media quickly

²⁶ David Roeder, "[Sun-Times Media Group files for bankruptcy](#)," *Chicago Sun-Times*, March 31, 2009. Flourney interview with Fusco.

followed. The idea of marrying electronic mapping and murder proved particularly appealing. Today the number of cities where newspapers provide online homicide maps is staggering.²⁷

The Oakland Tribune was no exception—except that its journalists had proportionally more murders to cover. The year 2006 was brutal. There were 148 murders, 57 percent more than in 2005. Sean Connelley, a 34-year-old photographer, captured many of those killings on film. He would come home from work and talk to Katy Newton, his 32-year-old wife. “Number 65 happened today,” he’d say. Or, “Now we are at 75.” Newton found herself doing much the same. A person became a statistic. “We had forgotten,” she said, “that they were human beings.” Newton and Connelley wanted to put a human face on the murders. They decided the best way to do this was online.²⁸

Getting approval for the project involved more than simply pitching the idea to an editor. Newton, who had her own multimedia production company, did not work for the *Tribune*. So she and Connelley put together a preliminary visual outline of the website, known as a wireframe, that included goals, duties, a timeline, and what they would bring to the readers. “If you pitch a project the right way, then the organization is far more likely to trust you,” said Newton. The plan did not call for the *Tribune* to pay Newton. Instead, she obtained funding from the California Endowment, a private health foundation that provides grants to community-based organizations in the state. The initial plan was modest: an interactive homicide map with a message board. That changed when Newton and Connelley began talking to the families of murder victims.

Most murder victims in Oakland are young black men. Most grew up in hardscrabble neighborhoods. Most had little education and few prospects of a decent job. Almost half were on probation or parole. Then one day a killer snuffs out their existence with a gun. Most reporters rely on a mug shot and a police report for their story. Newton and Connelley learned that many families felt twice victimized by anonymous forces—once by the killer, then by the media. A father or son or brother is reduced to a 250-word crime story and a mug shot. As the relative of one murder victim wrote in a letter to the *Tribune*, “Mug shots scream GUILTY.” Newton and Connelley agreed. They would not use mug shots. As they talked to the relatives of murder victims, the two young journalists also learned something quite personal. “We thought of ourselves as open-minded but learned the biases we had,” said Newton. “There were loving people in these families.” At one home, they met a mother and father who had buried three sons, each murdered before turning 18. “The dad was a mechanic who had this great love and desire to help the community,” said Newton. “We found this again and again.”

As Connelley and Newton worked on the project, their ambitions expanded. They interviewed community leaders, activists, and scholars. “Everyone wanted solutions—what can they do, how can the public get involved,” said Connelley. “We took their ideas to heart and created areas on our site to address these issues.” In March 2007 the *Tribune*

²⁷ Raechal Leone, “[The Mashup Man](#),” *American Journalism Review*, Dec./Jan. 2007. See also Holovaty’s website at <http://holovaty.com>. The best source of online crime maps is [Journalistopia](#). Cities with online murder maps include Baltimore, Baton Rouge, Birmingham, Boston, Jackson, Kansas City, Indianapolis, Memphis, Milwaukee, Minneapolis, Nashville, Newark, New Orleans, New York, Palm Beach, Philadelphia, Richmond, Rochester, Sacramento, San Jose, San Francisco, and Seattle.

²⁸ Flournoy interview with Katy Newton, March 30, 2009; Jim Wayne interview with Katy Newton and Sean Connelley, “[Not just a homicide map](#),” *Online Journalism Review*, Nov. 15, 2007.

launched “Not Just a Number.” It combined straight news reporting, social networking, and community activism. It was interactive. It transformed the once-humble murder map into much more. As with other homicide maps, a coordinate corresponds to a murder. Unlike other maps, this one allowed a user to click on a number and listen to a mother’s memory of her murdered son; view photos from family and friends; or exchange stories and photos, even music, about the victim. There was more. “Features & Updates” had *Tribune* articles, videos, slideshows, and podcasts exploring homicides in Oakland. “Risk Factors” provided an overview of the shared characteristics of most murder victims. “City Resource Map” and “Link Up” listed agencies working to improve the situation. “Stories by you” allowed young people to post video and audio podcasts. “Share your story” is particularly powerful. A few posts are optimistic. Francine “Cookie” Green, whose brother was murdered, wrote, “Everything that’s done in the dark will surely come to the light.” Most breathe bitter wariness. A 19-year-old student has buried more than a dozen friends. “I have a full-time job and a one-year-old son but I’m afraid to take him outside,” he wrote. “WHAT THE HELL IS GOING ON?”²⁹

“Not Just a Number” inspired tremendous feedback. Accompanying the website was a five-part series that examined the ripple effects of a single murder in Oakland. “The paper sold out immediately. That never happens,” said Newton. “People would call us and tell us they were reading the paper *and* looking at the website. It was exciting and powerful. I want that to happen again.” Connelley and Newton believe “Not Just a Number” can be a model for journalism in the future. It was not a big budget production. Connelley worked on the project at night and on weekends, taking photos, conducting interviews, and doing the programming. Newton, with money from the foundation, reported, edited photos and video, and laid out the graphics using Photoshop. They often used open source software. They also had bosses who allowed them to take chances, a point Newton emphasized at the ceremony where she and Connelley received the Knight Foundation Award for Public Service. “I thanked the editors for not asking us if we knew what we were doing,” she recalled.³⁰

Not everyone was pleased with “Not Just a Number.” The vast majority of murders in Oakland occur in the working-class neighborhoods known as the “flatlands.” Initially, residents there welcomed the coverage. Their attitude changed when the *Tribune* began using mug shots of many 2007 murder victims. Martin Reynolds, the newspaper’s editor and the man who made the decision, said he had no alternative because nothing else was available. Many families believed they had been double-crossed. Some *Tribune* reporters told Reynolds, “We’re going to betray the people who let us into their homes and told us their stories if we use these mug shots.” Some veteran *Tribune* staffers dismissed “Not Just a Number” as fluff. “An older journalist felt we were sugar-coating the issue,” said Newton. “His position was that if you get involved with gangs and violence, this is what happens.” Connelley and Newton disagree. They spent much of their time looking at possible solutions and are convinced they made the right decision.

²⁹ The *Tribune* website can be found at “[Not Just a Number](#).” Steve Spiker, Kenyatta Arnold, and Junious Williams, “[2007 Homicide Report](#): An Analysis of Homicides in Oakland from January through December, 2007,” Urban Strategies Council, June 13, 2008.

³⁰ Brenda Payton, “[One young man’s death affects lives of many](#),” First of a five-part series, *Oakland Tribune*, March 3, 2007. “Developer Spotlight,” [Yahoo Developer Network Blog](#), Jan. 16, 2008. Wayne interview with Newton and Connelley, “Not just a homicide map.” Flournoy interview with Newton.

“Don’t be afraid to do that,” said Newton. “That is the element that young journalism students are intrigued about, a new way of looking at the world.”³¹

Connelley built “Not Just a Number” so that reporters could easily update it with new information. However, cutbacks at the *Tribune* have largely put the website on hold. When the author checked “Not Just a Number” in April 2009, there was no map for 2008 murder victims; in addition, no stories or community responses had been posted in months. Newton said the newspaper’s remaining staff lack the manpower and time to update the website. “They just can’t do it,” she said.³²

Connelley and Newton have left Oakland. Today, both work for the *Los Angeles Times*, one of the nation’s best newspapers. He is a web developer, and she is a video journalist. Despite the move, they have been unable to escape the turmoil engulfing the nation’s newspapers. In December 2008 the Tribune Company, which owns the *Los Angeles Times*, filed for bankruptcy protection. None of this has dulled the journalistic passion of Newton and Connelley. Newton points out that the model used to produce “Not Just a Number” is gaining in popularity. In 2008 several news organizations produced award-winning investigative stories that were the result of collaborative efforts between professional journalists and nonprofit groups. “I feel like we’re on the back of a woolly mammoth but that doesn’t mean it’s the end of animal life,” she said. Newton foresees a future in which mainstream news organizations, “boutique” news sites, and nonprofits work together, using electronic mapping to highlight health disparities. “It’s what I and many others love to do,” she said. “Brainstorm, argue, debate, investigate, publish what you find. It’s the best job ever.”³³

Conclusion

These four case studies demonstrate the enormous potential of marrying GIS and journalism to highlight health disparities. Three lessons stand out. First, identify solutions along with the problems. The two are inherently linked. Investigative reporters have long demonstrated this. Consider Jacob Riis detailing slums in New York City in *Scribner’s* magazine in 1890 and John Steinbeck describing a California migrants’ camp in the *San Francisco News* in 1936; Ida B. Wells cataloging lynchings in the South in the *New York Age* in 1892 and John Howard Griffin disguising himself as a black man in the Deep South for *Sepia* magazine in 1955; Nellie Bly reporting the abuse of women in a madhouse in the *New York World* in 1887 and Katherine Boo recounting mistreatment of the mentally challenged for the *Washington Post* in 1998. To report these abuses is itself a call for action. There is an accompanying lesson: The more local the story, the greater the

³¹ Reynolds agrees: “The coverage of crime for so long has not really been solution-oriented. We need to try to present solutions.” See Michelle Norris interview with Martin Reynolds, National Public Radio, May 22, 2008, available via LexisNexis.

³² The *Oakland Tribune* does provide a standard mashup for 2008 homicides. The map, not part of “Not Just a Number,” lists the date, location, cause, name, and age of a murder victim. There are no photos or personal information. See [Oakland homicide map](#).

³³ Flournoy interview with Newton. Several winners of the 2008 Investigative Reporters and Editors’ national competition exemplify the new journalistic model. For example, the nonprofit Center for Public Integrity worked with professional journalists to produce “Tobacco Underground: The Booming Global Trade in Smuggled Cigarettes,” an international investigation, and “Hear No Evil, Smell No Evil,” an expose of environmental problems in north Texas. See [IRE Awards](#).

likelihood that the problem will be addressed. In “Toxic Traps,” *The Dallas Morning News* used GIS to show that a national program to rebuild public housing would force hundreds of thousands of mostly minority families to live in close proximity to toxic factories. The newspaper obtained scientific studies documenting an increased risk of cancer and other diseases at several housing projects. Despite this, the series failed to prompt significant change. Why? Because the magnitude of the problem would have required a monumental remedy. Addressing the central problem outlined in “Toxic Traps” would have meant redirecting billions of dollars and, more importantly, providing thousands of low-income, minority families with housing opportunities outside ghetto neighborhoods in cities across the country. Few government officials are willing to invest the political capital required to make this happen.

Reporters at *The Chicago Sun-Times* could have looked at the national picture when they began their investigation of convicted sex offenders in nursing homes. Instead, they focused on the state of Illinois. What they uncovered—161 convicted felons, including 100 sex offenders, in nursing homes—was significant but not so overwhelming as to defy remedy. Within one month of publication, state officials shut down a nursing home housing ten convicted sex offenders. Within a year, Illinois became the first state in the country to require nursing homes to conduct criminal background checks of its residents.

Second, experiment with new journalistic models. This is what Katy Newton and Sean Connelley did in “Not Just a Number.” Their approach, combining the resources of a mainstream news organization and a nonprofit foundation, is likely to become even more important in the future given today’s harsh economic climate. This means that news organizations must be willing to back projects that rely on new technology and new approaches. As Newton put it, “Be willing to make mistakes.” For their part, reporters who want to do social justice journalism must recognize it is unrealistic to work on a single story for several months in today’s economic environment. Lori Rackl and Chris Fusco reported and wrote an ambitious, high-impact series for the *Chicago Sun-Times* exposing the presence of sex offenders and others convicted of violent crimes in nursing homes across the state of Illinois, and they did most of the work in six weeks.

Third, make the public a partner. News organizations should view electronic mapping to explain health disparities as an ongoing effort that encourages community involvement and feedback. This requires that journalists make a commitment to stay on such stories and to incorporate GIS whenever possible. It also requires that news organizations accept a new paradigm of journalism, one that replaces the old demarcations of news provider and audience with one in which news is a more collaborative effort. This is what Newton and Connelley did in their “Not Just a Number” project. What began as an attempt to put a face on murder victims became a multimedia gathering place where family members and friends could post video, music, and comments that can be both raw and eloquent. It also graphically displayed the geographic disparity of murder in Oakland, one that is clearly tied to class and race. The banquet of electronic maps offered by *The Bakersfield Californian* accomplishes the same goal via different means.

In almost any other year, electronic mapping that illustrates health disparities would be a good idea, one that news organizations should pursue as the right thing to do. But 2009 is different. There is a new and compelling reason for news organizations to use

GIS to explore social inequities—deteriorating economic conditions that threaten their very survival. How bad is it? According to Walter Isaacson, whose journalistic lineage encompasses newspapers on both sides of the Atlantic and the top job at *Time* magazine and CNN, “Journalism has reached meltdown proportions. It is now possible to contemplate a time when some major cities will no longer have a newspaper and when magazines and network-news operations will employ no more than a handful of reporters.”³⁴

Newspapers have been hardest hit. In 2008 the stock value of the nation’s 15 largest newspaper companies dropped 83 percent. This was more than twice the 38.5 percent decline in the S&P 500. In dollar terms, the market decline of Gannett, the New York Times Company, and the other newspaper giants translated into a loss of \$64.5 billion in one year. More than 120 newspapers shut down in 2008. Seeing opportunity in the wreckage, one entrepreneur launched Newspaper Death Watch, a website that chronicles each casualty. There’s no shortage of bad news. The 161-year-old Tribune Company—owner of the *Los Angeles Times*, the *Chicago Tribune*, and almost two dozen television stations—filed for bankruptcy in December 2008. In January the Minneapolis *Star Tribune* followed suit. In February the owner of *The Philadelphia Inquirer* and the *Philadelphia Daily News* sought bankruptcy protection. The owner of the *Chicago Sun-Times* did likewise in March. That same month the *Seattle Post-Intelligencer* became the first large American newspaper to switch entirely to the web; in the process, it cut its news staff from 165 to 20. Newspapers large and small slashed staff. An estimated 7,500 print journalists lost their jobs in 2008. That’s 15 percent of the nation’s newsrooms—in one year.³⁵

This has significant implications for those who hope to see journalists make increasing use of electronic mapping to highlight health disparities. Over the past 150 years, newspapers have been the single most important source of original news reporting. This was true at the Battle of Antietam in 1862 and in Baghdad today. Newspapers produce the vast majority of significant investigative stories. This was true in 1972 (consider Watergate) and 2007 (consider the ill treatment of wounded veterans at Walter Reed Army Medical Center). Newspapers have made the most effective use of GIS to illustrate social inequities. It’s why David Herzog selected ten projects by newspapers for his 2003 book, *Mapping the News*, and why the author of this chapter selected four projects by newspapers as case studies. Good reporters, like good scholars, rely on primary records. They ask the right questions. They know important stories take time.

³⁴ Walter Isaacson, “[How to Save Your Newspaper](#),” *Time*, Feb. 5, 2009.

³⁵ Alan Mutter, “[Newspaper share value fell \\$64B in '08](#),” Reflections of a Newsosaur blog, Jan. 1, 2009; [Newspaper Death Watch](#); The Kalb Report, “[Down to the Wire: Journalism in Crisis](#),” a panel discussion at the National Press Club in Washington, D.C., March 23, 2009; Andrew Ross Sorkin, “[Workers pay for debacle at Tribune](#),” *New York Times*, Dec. 9, 2008; David Phelps, “[Star Tribune files for Chapter 11 bankruptcy](#),” (Minneapolis) *Star Tribune*, Jan. 16, 2009; Harold Brubaker, “[Philadelphia newspapers’ owner files for bankruptcy](#),” *Philadelphia Inquirer*, Feb. 22, 2009; David Roeder, “[Sun-Times Media Group files for bankruptcy](#),” *Chicago Sun-Times*, March 31, 2009; Dan Richman and Andrea James, “[Seattle P-I to publish last edition Tuesday](#),” *Seattle Post-Intelligencer*, March 17, 2009. One of the best websites tracking what’s happening in American newsrooms is [Paper Cuts](#). To put the 83 percent loss in 2008 in perspective, consider this: Between 2005 and 2007, these same newspaper publishers lost 42 percent of their value. Newspapers are hardly alone. Ten years ago, almost two in three Americans regularly watched local television news. Today it’s down to one in two. See Project for Excellence in Journalism, “[The State of the News Media 2009](#),” Overview (pg. 5) and Newspapers (pg 2).

And they understand that how those stories are written and displayed is almost as important as the facts they contain.³⁶

The problem is that this kind of journalism does not come cheap. *The Miami Herald* spent months researching the question of why Hurricane Andrew devastated certain neighborhoods. Journalists compiled databases with hundreds of thousands of entries covering hurricane damage reports, property tax records, home-construction inspection records, and political contributions. They cross-tabulated the data, then used GIS to visually plot their findings. They searched through thousands of paper records. They interviewed dozens of people. They took photographs and assembled ambitious graphics. They wrote thousands of words that line editors, copy editors, and top editors read and re-read. They fact-checked their work. They packaged it all in “What went wrong,” a 16-page special section that included color photographs and graphics but no ads. That was in 1992. In 2006 *The Miami Herald* was sold to the McClatchy Company. In 2008 McClatchy stock declined almost 94 percent. If a hurricane of Andrew-like proportions struck south Florida today, would *The Miami Herald* produce another version of “What went wrong”?

Probably not. But this does not mean solid, GIS-based journalism is dead. On the contrary, electronic mapping may help save newspapers. The days of big-ticket projects like *The Miami Herald*’s “What went wrong” package are almost certainly gone. Journalism that is GIS-based and cost-effective appears to have a real future, however, as demonstrated by *The Oakland Tribune*, the *Chicago Sun-Times*, and *The Bakersfield Californian*. Erin McCormick, who spearheaded the *San Francisco Chronicle*’s “Too Young to Die” series, said the newspaper could not take on that same project today because of its precarious financial condition. Still, she is convinced that interactive electronic mapping highlighting health disparities will play a central role in helping journalism survive. “I’m sure it has a huge future,” said McCormick. “Newspapers will have to hit bottom for people to realize that it’s worth investing in journalism and having professionals ask questions in deep and probing ways.”³⁷

The key to the survival of newspapers is paid content, but users will pay only if the content is something they want but cannot get elsewhere. GIS-based reporting that highlights racial and economic disparities is just the sort of content that many users will pay for. Working-class Americans in 2009 are mad as hell at today’s robber barons—greedy Wall Street money managers, corporate CEOs, and bank executives—who paid themselves tens of millions of dollars in bonuses and stock options and golden parachutes while running their companies into the ground. They know that over the past 30 years income inequality in the United States has reached record proportions. They are like the victims of a great flood in search of someone who will tell their story with

³⁶ George W. Smalley’s account of the Battle of Antietam (also known as the Battle of Sharpsburg) set the standard for modern war reporting—accurate, dispassionate, and gracefully written. See George Smalley, “Battlefield of Sharpsburg, MD.,” *New York Tribune*, Sept. 17, 1861 in Judith and William Serrin, eds. *Muckraking! The Journalism that Changed America* (New York: New Press, 2003): 269–273. *The Washington Post*’s extraordinary reporting in 2007 on the problems that wounded soldiers endured can be found at [Walter Reed Army Medical Center](#).

³⁷ Flournoy interview with McCormick, March 12, 2009. San Francisco may become the first American city without a daily newspaper. In February 2009 the Hearst Corporation said it would close the *Chronicle* unless employees agreed to massive cuts. See Shira Ovide and Russell Adams, “Hearst Plans to Slash, Sell or Shut Paper in Bay Area,” *Wall Street Journal*, Feb. 25, 2009, pgs. B1, B6.

professionalism and passion. Chris Rose understands. For years, Rose wrote an entertainment column for the New Orleans newspaper *The Times-Picayune*. Then Katrina came and flooded his city and forever changed Rose and his newspaper. Instead of profiling Britney Spears, Rose wrote about finding a corpse on his neighbor's porch. "There's no question that from the day it came down, the notion of objective journalism was washed away with everything else in this town," said Rose. "We write with a really interesting edge and a real gripping tone, which is why I think we're the most relevant local paper in the country."³⁸

For today's journalists, the choice is simple: Britney Spears or the corpse?

³⁸ Ken Picard interview with Chris Rose, "[Columnist to Speak about Journalism and His Post-Katrina Transformation](#)," *Seven Days*, Oct. 15, 2008.