

DATA JOURNALISM
AT THE LAS VEGAS SUN

A Professional Project and Analysis
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by
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Chapter 1: Introduction

Starting out at the Missouri Journalism School, I didn't have much in the way of direction. I was interested in learning to be a reporter, but I had real no sense of the kinds of stories that I wanted to write beyond my own personal interests in different subjects--I just moved from assignment to assignment, filing what I could and trying to meet expectations.

Taking the computer-assisted reporting class and the seminar on Geographic Information Systems changed all that. Until then, I didn't really understand news reporting as more than talking to people, digging through published reports, doing some basic research and then writing it all down in a hopefully coherent narrative. I had a strong eye for detail and was a decent problem solver, so the world of spreadsheets and database managers--which I had never touched before--came easily. It felt intuitive.

Suddenly I was capable of zeroing in on stories no one had even thought about. Public agencies produce reams of electronic information that few tap into; when it came to ideas, the cup runneth over in a way it never had.

There was also a power in being able to conduct my own analysis and even challenge the conventional wisdom on a subject. The more traditional methods of reporting then kicked in, and it became paramount to figure out why the data showed what it did as well as what it meant.

Some didn't hold this number-crunching data work in high esteem, though they had to appreciate what it could do. They forgot that data is never left to speak for itself--that's where the reporting comes in.

I chose to do my on-site work component at the Las Vegas Sun because they seemed genuinely interested in what CAR could do and had little experience with it. It fit in with my goals to mainly do CAR, and from what I understood at the time there would be a lot of flexibility to do high-impact stories. The Sun had essentially ceded all "paper of record" functions to its joint operating agreement partner, the Las Vegas Review-Journal, across town and was focused on daily enterprise and investigative work. Drex Heikes, a deputy managing editor at the time, constantly likened it to a magazine. The stories were typically much longer, a lot of attention was paid to page design and the art gracing the paper was fresh and bold.

My professional analysis deals with how CAR is being practiced today. It's a melding of the traditional--the way that I came up through data journalism and the established progression--and the brand new. The emphasis on presentation has exploded in the past few years, moving beyond unique work only being done by trailblazers at places like the New York Times. Smaller and non-traditional media outlets are frequently doing CAR work and data visualization that receive top honors in online news and data journalism.

I was interested in understanding how these organizations operate today, what kind of stories they produce, the challenges they face and what they think about data journalism as a modern, increasingly-adopted technique in news reporting.

Chapter 2: Chronology and Field Notes

The on-site work component of my professional project took place at the Las Vegas Sun in Henderson, Nev., from May 21, 2007 through August 24, 2007. During that three month span I was the newspaper's computer-assisted reporting specialist and relayed periodic updates on progress to my project committee via a Blogger page. Those entries are copied below.

Wednesday, May 23, 2007 - Arrival and first few days on the job

I met with Drex Heikes (Sun deputy managing editor) and Barry Horstman (assistant managing editor) for lunch on Wednesday, May 16th. We talked a little bit about their time at the Las Vegas Sun; both are recent additions to "the desk," coming on around the same time in late 2005/early 2006. We also discussed potential CAR projects that the editors had been interesting in tackling, but just didn't know how to accomplish.

Drex had mentioned an investigation of utility prices using CAR tools back in April. I had done some cursory digging on that front in my spare time towards the end of last semester. I knew enough about where to get some important documents from the Energy Information Administration (EIA) and the Federal Energy Regulatory Commission (FERC) to at least have a starting point. We decided that should be one of the first projects in my sights.

We also starting talking about the casinos. Kind of a big thing around here. Relatively miniscule taxes (6.75%) on the casinos bring in pretty much all of the state's revenue. Per capita spending in Nevada is pretty poor, needless to say. There's no personal income or property tax. Even the room taxes for the hotels go straight to the Las Vegas Convention Authority for television and print advertising: "What happens in Vegas, stays in Vegas." That kind of thing. The governor mentioned diverting that to the construction of new roads and freeways, and the real powers that be balked at the idea of having their free promotions taken away. Oh, and the Nevada legislature only meets every other year for normal sessions, meaning that a lot of important legislating doesn't happen because there just isn't enough time.

Barry and Drex want to know how a proposed increase in the gaming tax would affect the bottom line of the casinos. Resort corporations like MGM Mirage own a large piece of the strip, as well as other gaming establishments in the United States and other countries. They pay higher taxes outside of Nevada with no complaint, so why are they so resistant here? One task is to send a records request to the gaming commission to get a breakdown of revenues and expenses filed for all the publicly-owned casinos in the state, of which there are several hundred.

Also, they want to investigate firefighter overtime pay. The highest paid city employee in 2006 was a corrections officer who cleared \$175,000 with overtime pay on top of his base salary--far more than any elected official. There's a lot of this going on, and it's a cause for concern. Firefighters in Vegas have an excellent pension set-up: 20 years and out, making 80% of your average salary for the rest of your life. They think that the system is being gamed so that firemen retire with ridiculously bloated pensions, bleeding the city's coffers. More records requests to see if this is the case.

As a side note, Nevada has a terrible state open records law. There is no set response time written into the law, nor is there any provision for requesting electronic records. It's entirely at the agency's discretion. This may be why I'm essentially the first CAR specialist working at a Las Vegas daily.

These three projects - gaming tax, utility prices and firefighter overtime--are my first priority assignments. I sent the state FOI requests for the overtime information to the cities of Las Vegas, North Las Vegas, Henderson and Boulder City, as well as stations throughout outlying Clark County, yesterday and today. Since I started Monday, much of my time has been spent backgrounding these issues. They are complex enough without complex histories to catch up on.

I'm still waiting for the IT department to finalize my workstation for data analysis. They work on this bizarre remote system with smartcards. You work completely on the network - no actual hardware except a screen and keyboard. This is not exactly how the situation was described to me earlier this year, and I was told that I would have an off-the-shelf PC to work on. I made it clear that this was going to severely handicap me, and my editors understand. My goal is to have this situation cleared up within a few days.

Monday, May 28, 2007 - Memorial Day thoughts

My workload increased throughout the week as more reporters came by my desk to introduce themselves. It's actually a huge relief for me- they seem genuinely excited about the prospect of having a data guy to pair up with to write some stories.

On top of utilities, gaming taxes and city overtime, I'm now looking into possible stories for the Sun's health care reporter using mortality data and other information to assess quality of care in Las Vegas. This is just one of many potential things coming down the pipe.

I have to check on this tomorrow, but I'm fairly certain I should have the hardware I need by early next week. There was apparently some miscommunication between the editors and the IT department at Greenspun Media.

Saturday, June 2, 2007 - Electricity in Southern Nevada

Most of my time this week has been completely devoted to a "big picture" story I'm working on about power rates. As I've mentioned previously, Nevada's electricity costs have skyrocketed since 1990, outpacing every state but Hawaii in growth. Whereas power used to be relatively cheap in Nevada--good, because the area has peak summer loads unheard of back in the Midwest--it's now the most expensive in the pacific southwest outside of California.

Using EIA data, I've been able to break down the cents-per-kilowatt hour rate for every utility in the United States based on the revenue from power sales. It's been slow going because I have to do it all in Excel, but I've done my best to make it work. The new PC has been ordered, and it should arrive at the end of next week while I'm at the IRE conference in Phoenix.

So far, I've talked to some of the major players in the utilities market: Don Soderburg, chairman of the Nevada Public Utilities Commission; Michael Yackira, president and COO of Sierra Pacific Resources (Nevada Power's parent company); Timothy Hay, former state consumer advocate; and Eric Witkoski, current state consumer advocate.

The main problem seems to be that Nevada didn't grow its generating capacity from the 1980's forward like other southwestern states did. The majority of power was bought from other states--mostly California. When the western energy crisis hit immediately after the legislature had capped electric rates, Nevada Power almost went bankrupt. Further legislation allowed them to raise rates within "prudence and reason." What comes down the line to consumers today is the cost of new power plants and fuel for those plants. Natural gas is really popular in the southwest. It also costs about four times what it did in 1990.

Based on a figure of 1,850 kilowatt hours of consumption during the summer months (June, July, August, September), the average household's electric bill is over \$250.

The new plants being built will mostly use low-sulfur coal that's shipped in from the Powder River Basin in Wyoming. Instead of 80% natural gas-fired plants, the hope is that by 2015 the energy portfolio will be split 45% coal, 35% gas and 20% renewables.

But do new coal plants really make sense in this day and age? They require more acre-feet of water (and I've heard that Vegas could run out of water by 2020) and have a much larger environmental footprint. Coal is cheap now- in the future, who knows? I don't see the government loosening restrictions on fossil fuels between now and the 2070s, when these plants will come to the end of their operational lives.

A few more interviews and a few more paragraphs and I should have an interesting study ready for publication.

Wednesday, June 13, 2007 - New Projects and the IRE Conference

I've finally started bringing work home with me so that I can run analysis here--the new computer has arrived, but IT at the Sun has been too busy to hook it up. I'm pretty low on the totem pole and low priority anyway in a busy newsroom, but the managing editor got wind that I was still waiting and lit a fire under them to get moving on this.

There are three new things I'm working on this week; two of them are on my own without any suggestion from other reporters or editors. There's a huge push at the Sun for a new online package, and they've been doing quite a bit of hiring to make it happen by September 1st. So, I've gone to work getting the Sun set up with a subscription to the county assessor's data files, which update weekly. Since it's for newsgathering and not

commercial purposes, my hope is that their office will waive the typical \$200 fee. Also, I tried to sit in on as many web-scraping panels at the IRE conference in Phoenix as I could. The Vegas Metro police don't really have much of a blotter--you can view two months worth of crime data through their site, but this simply isn't good enough to assess trends. This would be something more valuable down the road, once the data has had some time to accumulate.

Online databases for the readership to browse on their own are going to be one of the new priorities for the web. I'm doing my best to become a part of this with the new tasks I'm taking on.

I'm also working on an interesting bit with fellow reporter Steve Kanigher. Governor Gibbons recently called for divestment of the state employees' pension fund in any corporations that do business in Sudan. I've been working for about two days and have found a slew of other companies that the pension fund has money tied up in that will cause some outrage.

Nuclear energy, for instance. About 2% of the \$23 billion in assets are invested in energy companies that want to dump their nuclear waste at the Yucca Mountain site down the road from Las Vegas. Needless to say, Yucca isn't a very popular project in Nevada. There are also businesses with little corporate conscience that have had problems with child labor, links to terrorism and egregious pollution. It's a work in progress, but it may actually beat the utilities story into print. I wrapped that one up, by the way, and it should hit the presses any day.

Other projects are on hold until I get that PC with Access, however.

As an afterthought: I'm running into heavy resistance on the data request I turned into the local fire departments. My request to talk to the city's IT department was effectively denied by media relations, and many are claiming that it will cost thousands of dollars in paper and labor. The one request completely fulfilled comes from Boulder City. I specifically asked for an electronic copy. What did I get? Paper.

Sunday, June 24, 2007 - Vegas Mortality

I finally have the PC I was waiting for. All last week I've been processing the CDC's multiple mortality public use data files for 2004. Bringing it into Access was the easy

part- figuring out how to use it accurately has been more difficult. I've been in touch with an epidemiologist at UNLV, and I'm also slated to talk to Dave Davis at the Cleveland Plain Dealer (they did a good series with mortality data a few years back) tomorrow morning. So far, all I have are crude rates for mortality- your basic per capita figures for the state of Nevada and Clark County. Initially, I was trying to do a direct comparison between these two groups and the nation as a whole.

Therein lies a pretty big problem. It's not accurate to compare them that way. The rates have to be age adjusted: you have to assign age groups different weights to standardize them. Doing a comparison of crude rates will be more or less skewed by the median age of a state or large county. I have a pretty good idea of how to do it, but I will need this epidemiologist's help. She's agreed to check some of the work after it's done to make sure that it's accurate.

I've also gotten cleared to get a SAS license through MU. Access just can't do statistical analysis, unfortunately. I spent a lot of time banging my head against a wall trying to figure out how to perform median calculations for separate groups, not just an entire field within a table. No luck there. The good people of Microsoft were kind enough to provide an "avg()" function, but that's about it.

There are a few things in the data that stick out at first glance. Lung cancer, suicide and drug overdose are huge killers in Clark County. It will be interesting to see how Nevada stacks up against other states. No paper's ever really tackled this before.

I've been doing some sideline work for other reporters, too. I downloaded the voter rolls and gave top democrat and republican precincts and zip codes to the political reporters on staff for a pre-caucus project. I may be doing some work on a home foreclosures story, but that's still up in the air.

Since there's a big push toward the new online package, I'm trying to teach myself Perl scripting at night when I get home so that I can get some interesting online databases ready for the web before their launch.

Sunday, July 1, 2007 - Vegas Mortality Hits the Paper

The story Marshall and I wrote went front page above the fold today. The article's in the ballpark of 30 inches, and Chris Morris, the Sun's art director, put together a full-page

graphic to break out some of our findings. The article can be viewed [here](#), and while the PDF system for viewing the graphics is kind of crappy, it'll give you an idea of how much of the paper they devoted to this story.

It's a good feeling, especially since the Review-Journal (commonly referred to as "that other paper" in the newsroom) has stayed pretty tightly within the confines of any press release issued by the Nevada Health Department. The thrust of their stories could be true of anywhere in the country- a lot of people die from heart disease and cancer. We went after ways Clark County and Nevada were unique. The findings weren't necessarily surprising or overly conclusive, but Marshall and I saw it as a starting point for more stories this summer. Right now, we want to write more about suicide, drug overdose and also look at infant mortality rates in the valley.

I ended up getting a license for SPSS 15.0 Base which made some of the work easier. I used CDC WONDER to get age adjusted rates, and then found a 95% confidence interval for each. We looked at causes of death where the lower boundary of the confidence interval was at least 1.5 times higher than the national age adjusted rates. We also tried to weed out cases where too few people had died between 1999 and 2004. The CDC says anything with more than 20 cases can be considered reliable, but we went with closer to 80 for more certainty. I also had an epidemiologist from UNLV check over our work to make sure I wasn't off base with some of the findings.

Kanigher wasn't pleased that the employee pension story was held yet again in favor of this piece. That was moved to next Sunday, and it's another double byline for me. I've also been told that my utilities story will run during the holiday week, a time when the desk is usually hurting for copy. It's probably even more timely now since it's July. The high today was 110 degrees; by the fourth, it's supposed to peak out at 115-116. And this is in the shade, mind you. I keep a remote temperature sensor outside in the sun that topped out one day at 145.2.

My first priority next week is doing analysis of every school construction bid in the valley since 1997, which I should be able to wrap up in a day. I also spent several hours building a small database of overseas teacher recruitment expenses for Emily Richmond, the education reporter, based on around 300 pages of documents she'd requested from the school district.

So far, all other reporters in the newsroom have been nothing but complimentary regarding my work and have been thankful to have me. Chris, the art director, has really

taken a shine to me and is helping me look for ways I can elbow my way into "web ops" for the new site. My dream would be to build an online crime/accident database and also put together a host of online resources for the upcoming presidential caucus. I'm doing my best and hope that I can make these things happen.

Wednesday, July 4, 2007 - Vegas Mortality response

I got positive feedback on the mortality story from readers, other reporters and all of the Sun's editors. It was also picked up the next day by Scripps Howard News Service for national distribution- a first for me.

Friday, July 13, 2007 - Poverty, education, nice houses

A lot has been going on around the Sun newsroom since the mortality hit the papers. I may have talked about this already, but we did get some response from the community about the mortality story. One woman sent me an email saying that it was one of the best pieces of local coverage she had seen in years in a Las Vegas newspaper.

Since then, I've done some uncredited work for other reporters and three larger projects- two are going to be coming out soon, and one is an online resource.

First, reporter Emily Richmond gave me about 300 pages worth of documents she had requested from the Clark County School District. They were expense reports and copies of receipts from overseas recruiting trips. That's right- Vegas schools are just too good for the U.S. They recruit from Canada, Spain, Puerto Rico, the Philippines, and Guam. And they waste a lot of money doing it. I spent several hours building an Excel sheet to break down cost per hire and cost per recruiter per day. There was one weird thing, though. A cancelled trip to Spain had business class tickets, purchased as one-ways, for three people. Everyone prior to that had flown coach. It was pretty apparent, and Emily thought it was weird before she even had me go through the documents. The analysis was part of two stories that ran side-by-side Monday, July 9th.

Chris Morris, the Sun's art director, is usually really good about giving me credit. In this case, I don't think he knew that his graphic was literally based off of my spreadsheet.

I also did a bunch of work on income disparity and poverty for a deadline story for

Thursday, July 12. Again, I put together a bunch of data for the graphics package in short order, especially the section that revolved around income shares and breakout percentages on county poverty levels.

The pension assets story is finally running, now a month after it was written. It's not quite as timely as it was back then, but all the editors love it, including the managing editor, Mike Kelley. Look for it on Sunday.

Another story that should be coming out in short order is one I did using data from the Clark County Assessor's office. I broke down parcels designated for single-family homes (not including condos, only detached residences) that have an appraised value of \$1 million or more. The disparities are kind of astounding. Take two of Las Vegas' main suburbs- Henderson and North Las Vegas. Million-plus properties in Henderson? Almost 1,900. In NLV? 10.

I'm also starting to put together a campaign contributions resource that will ultimately be online for all the valley to see. It's starting small- just the county commission going two years back- but even that little sliver is a massive undertaking. Currently, I'm evaluating OCR software for these report PDFs. Hopefully I can successfully pitch it to the editors to get some money to buy it. It's going to become more important in the future. I'm trying to figure out OpenKapow to scrape lobbyist data from the state. There are about 900 representing several thousand companies and other interests.

Kanigher, the reporter I worked on the pension assets story with, is teaming up with me again to analyze school construction projects over the last 10 years. The analysis portion is just about done- Vegas has built around 115 schools in the last 10 years. Pretty incredible when you think about it.

Friday, July 20, 2007 - New stories, the RJ/Sun rift

I did a lot of work with FEC data and "data" from Political Money Line (Congressional Quarterly's on-line tracking publication) for a story that ran front page, above the fold.

Also, those stories that ran on Sunday can be viewed [here](#) and [here](#). I was very nervous about the story based off of county assessor data--they have some heavy-hitting analysts who spend their entire careers inside of these massive parcel rolls. If I had made a mistake on my end, I know I would have heard about it.

I also wanted to touch briefly on the oddity of the Las Vegas newspaper landscape. There is incredible animosity between the Sun and the Review-Journal. On the weekends, there are often scathing editorials exchanged between the publishers. Here's an example of how the newspaper-reading populace sees the situation--these are letters to the editor published in the Review-Journal over the past few days:

WEDNESDAY- "To the editor:

I saw Las Vegas Sun Editor Brian Greenspun's column contained inside the Sunday Review-Journal. It was another attack on the hand that feeds him -- the Review-Journal and its publisher, Sherman Frederick.

I noted the sheer audacity of Mr. Greenspun's claim that the Review-Journal is the newspaper delivered with his, and that this benefits the reader. Give me a break.

Without the Review-Journal, his newspaper -- if you can call a 10-page section a newspaper -- would be in the dust bin of history. His 10 pages are filled with large photographs, a huge crossword puzzle and no advertising. Doesn't anyone pay to advertise in his newspaper?

The simple answer is that the Review-Journal reader pays for his hobby, and we have no choice in the matter. It was forced on us, and I for one am tired of subsidizing the Las Vegas Sun.

How typical of a liberal to take our money to pay for something we don't want, give us no choice in the matter and then tell us that we benefit from it.

If Mr. Greenspun's newspaper is so great, let him use his own money to produce it and we'll see just how long it stands on its own.

David R. Durling

LAS VEGAS"

SUNDAY- "After reading David R. Durling's rant in the Wednesday Review-Journal about having to put up with the inclusion of the Las Vegas Sun in the morning paper, I had to respond.

Mr. Durling doesn't seem to appreciate having to read any opinions that he doesn't agree with. He even complains about the size of the Sun's crossword puzzle. Mr. Durling feels he is subsidizing Sun publisher Brian Greenspun's hobby.

I would like Mr. Durling to know what I don't like. I don't like people who want to stifle the choices of others. When the papers merged, we lost a great deal more, as you can imagine. When a paper has to cut back to eight pages during the week and 10 pages on Sunday, a lot of favorite things have to go.

Not only did we lose favorite things, the price we have to pay is about triple. But that's fine with me. I would rather pay more than lose everything.

So I want to thank the powers that be at the Review-Journal for delivering their paper along with mine.

Jacki Weil

LAS VEGAS"

Wednesday, August 8, 2007 - Viva Las Vegas

I was startled to see that more than two weeks have passed by since my last entry on this blog. I haven't heard anything from back in Missouri, so I assume you know that I'm still making good on my promise of full-time newspaper work.

So good, in fact, that the Las Vegas Sun has offered me a permanent spot on their news staff. It will begin several days after the conclusion of my professional project on-site work. I've been hesitant to announce this because I know that your professional project cannot simply be the first few months of a full-time job. In this case, it isn't. The original contract I signed with Drex Heikes holds true until August 24th; nothing changes until then.

For the last two weeks, I have been mired in CDC mortality data again. I eschewed CDC WONDER in favor of the raw data sets this time- I had already brought in 1999-2004, but went ahead and imported 1989-1994 and 1979-1984 to look at comparable six-year periods 10 and 20 years in the past.

One of WONDER's shortcomings is that it can only offer up the underlying cause of death. In some cases, this can be different than the manner of death. For example, you will see deaths specifically tagged as suicides by the coroner/medical examiner/doctor filling out the certificate, but the underlying cause won't be translated into coding correctly from the narrative. There are specific ICD-10 codes for "self-harm," and in WONDER, if they aren't listed that way, they don't show up in the results.

One thing I did was compare raw numbers to data gathered by the Clark County coroner. That were almost perfectly in line with raw mortality data when considering manner of death as suicide. The numbers from WONDER were actually lower. If you want to apply this to previous work, our numbers were actually conservative across the board in relation to suicide rates.

The CDC likes to change the layout of the mortality dataset every few years- I found out pretty quickly that it was a waste of time to try to assemble a suicide slice from each year into a single suicide database where all the fields matched up. It was much easier to run a query for the fields I specifically wanted in Access, line them up and find sums in Excel, then calculate the rate that way. I also did not age-adjust the rate per 100,000. Suicide is an external cause, and we did a 10-year age group breakout for each six-year period of time.

Like before, I did most of the heavy lifting and helped put the graphics package together- Marshall made a few calls and drafted the bulk of the story, which we decided to center around the elderly. Their suicide rates were sky high compared to the rest of the U.S. when looking at the 75 and older crowd.

A problem we ran into is that all you can really get is an expert opinion on suicide- it's all speculation. I did my best to look into contributing causes, like depressive episodes, involvement of drugs or alcohol, etc., but they were coded inconsistently. Again, the downfall of the mortality data is that the cause narrative arrives after interpretation at the state-level before the hand-off to CDC mortality analysts in Washington, D.C.

The story and graphics can be viewed [here](#).

I finally got to flex some GIS muscle. The two maps of the United States were put together by me at home using shapefiles from the U.S. Dept. of Interior and data from CDC WONDER (they reported occurrence in counties that had a population of under

100,000, unlike the raw mortality files.) These maps were pretty much dragged and dropped onto the page. It's not really Sun style to do graphic bylines outside of illustrations, I've come to find, but I put together the graphics package with the art director.

A group of reporters including myself are back on the track of Nevada Power. I think they're going to cannibalize my reporting for background on a bigger project. I feel a little tapped out here, data-wise. The electricity situation has been mismanaged for years, and Nevada's betting the farm on antiquated generation methods that certainly don't play to the state's strengths (solar, anyone?).

And I'm back on the case of Nevada deaths, this time looking at post-surgery sepsis.

Saturday, March 22, 2014 - The road to completion

I would be remiss not to add a final log to this chronology after leaving this project unfinished for so many years.

In some instances I barely recognize the earnest 25-year-old writing the previous entries. I also barely recognize the place I describe. I think about what the Las Vegas Sun was in 2007 and how high the ambitions were as a scrappy daily, focused on in-depth coverage and investigative news. At its apex, we were a newsroom awarded the Public Service Pulitzer.

And then I think about what the Sun is today--hanging by a thread, caught up in a familial feud over its ultimate survival. The fate of the joint operating agreement is uncertain and the paper has far, far fewer reporters.

Some of my former colleagues have moved on to bigger and better careers at other newspapers, television stations and nonprofit groups. Some have left the field of journalism entirely, and some have actually passed on, like my friend and mentor Barry Horstman, who was also my first editor at the Sun before he moved back to Ohio.

But I'll always remember those golden years in Las Vegas, when the Sun had really hit its stride after reinventing itself in 2005. It was a newspaper that took a chance on data journalism--which simply was not being done in Nevada at the time--and gave me more freedom to do CAR and pursue great stories than I deserved as a brand new reporter.

I'll always be proud to say that I worked there.

Chapter 3: Self-evaluation

Let's get this out of the way first: I waited far too long to finish the professional analysis component of this project.

I came up with any excuse under the sun to justify putting it off, waiting almost seven full years to reconstitute a committee, get my methods approved, conduct interviews and then write this whole thing up. If procrastination was an Olympic sport, I could easily qualify to make Team USA and would probably even have a shot at medaling.

That said, I think the analysis contained a solid mix of voices from reporters and editors who walk different paths in the same realm. Every person or group that I spoke with seemed to have a different relationship with their respective newsroom. La Nacion's data team, for example, were less active as partners in the reporting process, treating journalists almost like clients that were being provided a service. Civil Beat has made more limited strides with CAR and big investigative series, with no single reporter dedicated to that kind of work, but has been inspired by the response to its police misconduct series and plans to do more.

Many of the experienced CAR practitioners I spoke with pointed to the less obvious progression and expansion of necessary skills. Knowing how to use spreadsheets and database managers no longer pushes the CAR envelope. Coding has become a key talent in the field, which can mean anything from writing scripts to automate tasks to generating dynamic tables and graphs on a web page from a database.

I think it reinforced for me that we all specialize to a certain extent in data journalism. There's the desire to know how to do it all, not only to open storytelling avenues but also for the sense of self-sufficiency. I'm still envious of those who feel as comfortable writing a lede as they do writing a Flask application, but if I keep finding ways to improve my own knowledge and push my abilities, little by little, I'll stay afloat in the field.

I thought the on-site component of the project in 2007 went swimmingly. There were two hiccups when I arrived that May, the first being that they worked on this completely bizarre computer system that was based entirely off of a network. Reporters and editors had screens on their desks (no actual processor or hard drive) that were accessed by sliding a card into the side of the monitor. Excel was available on the network device, but it was so slow that it could barely be used. So waiting for a regular PC slowed me

down considerably, probably delaying publication of my first big story on mortality rates by a few weeks. The other was that I was working on a story related to electricity prices that they didn't really like for print, and though it was never officially spiked, it just sort of went away.

What began with a bit of a rough patch turned quickly into great stories and print infographics, the kinds of reporting that wasn't really being done in Las Vegas in 2007.

I connected pretty quickly with Chris Morris, the art director at the time, who up until that point had been spending most of his time doing freehand illustrations for various stories--data-heavy graphics were the afterthought and not his specialty. I remember this changing quickly when I started shipping him vector exports for ArcView based on GIS analysis I had performed.

I remember learning very quickly that doing CAR in the academic bubble was different from data journalism in a live newsroom with daily deadlines. A lot of my work until moving to Nevada had been more exploratory and classroom-based than truly professional--I had done my semesters at the Columbia Missourian and then moved on, not realizing my affinity for CAR until later when I was working as a graphics reporter. You work without a net, and you have to squash problems before they even become an issue. The night a big story is going to press is not the time to suddenly realize that you didn't clean a column up properly and completely skewed the findings you're about to publish. Everything must be unimpeachable.

The end result speaks for itself. The Sun liked my work enough to bring me on as a full-time employee after the conclusion of the on-site portion of the project.

Chapter 4: Stories and Graphics Published in the Las Vegas Sun

Nevadans live hard, risk lives

By Marshall Allen and Alex Richards

Las Vegas Sun, July 1, 2007

Nevadans and Clark County residents die younger and at higher rates of suicide, substance abuse and certain chronic illnesses compared with the rates nationally and in other large counties.

That is the conclusion of a Sun analysis of mortality data gathered by the Centers for Disease Control and Prevention. The comprehensive CDC database includes the fate of every American--a detailed summary of every death certificate in the United States since 1959, documenting about 5,000 possible causes of death from rarities such as leprosy and yellow fever to mass killers such as heart disease.

The Sun compared the death rates in Clark County and Nevada with the same rates nationwide--analyzing about 14.5 million deaths from 1999 to 2004, the most recent year for which data are available--to find ways in which death in Nevada differed from national patterns.

The analysis revealed:

- Nevadans have the 12th--highest rate of death among people younger than 65.
- Nevada's rate of deadly accidental poisoning and exposure to noxious substances, which includes drug overdose, is almost twice the national rate. Clark County has the third--highest rate of fatal drug overdose for counties with more than 1 million people, behind only Bronx County, N.Y., and Cook County, Ill.
- The state's rate of death from alcoholic liver disease is 1.7 times that of the national rate and ninth among counties with more than 1 million people.
- Nevada's suicide rate is about twice the national figure and by far the highest among counties with more than 1 million residents.

"It's always striking to see those kind of elevated rates across a whole range of outcomes," said Matt Wray, a UNLV sociologist who specializes in the study of suicide.

The numbers have their limits. Most strikingly, they can tell what happened, but not why. And there can be variances based on human error and the way states and individual coroners classify causes of death.

Sheniz Moonie, an epidemiologist and biostatistician at UNLV who reviewed the Sun's analysis and methods, said the large amount of data each year--about 2.5 million Americans die annually--compensates for reporting variances, although it can be difficult to accurately compare one area with another. Other experts said the CDC numbers provide a starting point for more research, but are not conclusive.

Wray said the strength of the findings is that they provide a scope of death in Nevada.

The findings figure into the debate, for instance, over whether Las Vegas' relatively libertine environment causes behaviors that lead to substance abuse and suicide, or whether people predisposed to such behaviors--"brighter burning candles who flame out"--are drawn here, Wray said.

"My belief is that there are things about this place that are worth looking at closely," Wray said.

Ultimately, whether the higher death rates caused by substance abuse and suicide are attributable to the people or the place, Las Vegas is growing.

Experts need to find out what's behind the death-rate statistics "or things are going to get worse," he said.

There are many theories, but few answers, about why Nevada's suicide rate is so much higher than other states, said Wray, who is on a two-year fellowship at Harvard University.

The contributing factors include problem gambling, social isolation, substance abuse and the state's weak mental health system, he said.

Las Vegas' preponderance of drinking and drugs may explain the CDC's rates of death from liver disease caused by alcoholism and accidental drug overdose, UNLV addiction specialist Larry Ashley said.

"We're a city based in excesses, in many ways," he said. But Las Vegas and Nevada also are short on treatment options for people with addictions, he said.

"There are probably citizens who need to be in treatment who can't because they can't access them," Ashley said.

Dr. John McDonald, dean of the University of Nevada School of Medicine, said it is particularly interesting that Nevada is the only Western state that's high on the list of places where people die young.

In Nevada, an average of 285 people per 100,000 who were younger than age 65 died annually from 1999 to 2004. That's 9 percent higher than in New Mexico, 15 percent higher than in Arizona and 41 percent higher than in California.

The state's excess mortality, combined with the CDC numbers on chronic disease rates in Nevada, create a heavy societal burden, he said. Long-term diseases impose a high financial toll on families and health systems.

UNLV epidemiologist Moonie said many of the chronic illnesses that cause death at higher rates in Nevada are associated with risk factors and behaviors. Artery hardening is caused by a buildup of fat that's caused by diet. Alcoholic liver disease, which includes fatty liver and cirrhosis, is caused by long-term drinking.

Such chronic conditions raise questions about whether there are particular behaviors among Nevadans that contribute to greater disease and death, Moonie said. She ticked off a few relevant questions: Are Nevadans less active? Do they have high-fat diets? Do they consume more alcohol than in other states?

The CDC shows Nevada ranked eighth in the nation in 2006 for heavy drinking, defined as males who drink at least two alcoholic beverages a day and women who drink at least one a day. Nevada residents were the 15th least active compared with other states' residents, according to 2005 CDC data. But the CDC information also showed that Nevada's diet was not markedly different compared with other states in terms of fruit and vegetable consumption.

Michael Green, professor of history at the College of Southern Nevada, formerly known as Community College of Southern Nevada, said Nevada industry has never contributed to good health. Mining, the building of Hoover Dam, the Nevada Test Site and smoke-filled casinos all drew people who did not give much thought to how their jobs might affect their health or longevity, Green said.

It's possible, Green said, that Las Vegas residents are being seduced by their own advertising, living with a sense of freedom and indulgence that leads to their demise.

"The way we die here tells me we're not living very well," Green said.

Graphic #1 - Nevadans live hard, risk lives

Clark County ranks at (or near) the top of the charts

Clark County ranks high for the rate of people who die of alcoholic liver disease, narcotic or hallucinogen drug overdoses, sepsis (blood poisoning) and suicide. The following graphs are the causes of death where Clark County's rate is among the highest compared to national averages, and ranks Clark County with U.S. counties with at least 1 million residents, from 1999 and 2004. Each rate is per 100,000 people.

| Alcoholic/liver disease | | | | Drug overdoses from narcotics/hallucinogens | | | | Sepsis (blood poisoning) | | | | Suicide | | | |
|---------------------------|-------|------|----------------|---|-------|------|----------------|---------------------------|-------|-------|----------------|---------------------------|-------|-------|----------------|
| County | Count | Rate | Adjusted* rate | County | Count | Rate | Adjusted* rate | County | Count | Rate | Adjusted* rate | County | Count | Rate | Adjusted* rate |
| Riverside County, CA | 895 | 8.93 | 9.84 | Bronx County, NY | 624 | 7.72 | 8.33 | Philadelphia County, PA | 3,538 | 39.44 | 36.01 | Clark County, NV | 1,615 | 18.16 | 18.74 |
| Los Angeles County, CA | 4,458 | 7.66 | 8.59 | Cook County, IL | 2,569 | 7.99 | 8.03 | Clark County, NV | 1,601 | 18.9 | 23.98 | Maricopa County, AZ | 2,602 | 13.28 | 13.81 |
| San Bernardino County, CA | 757 | 7.05 | 8.55 | Clark County, NV | 600 | 6.25 | 6.79 | Cook County, IL | 6,510 | 20.24 | 21.27 | Hillsborough County, FL | 784 | 12.58 | 12.61 |
| Sacramento County, CA | 615 | 8.01 | 8.5 | Kings County, NY | 876 | 5.9 | 6.07 | Wayne County, MI | 2,104 | 17.15 | 17.85 | Broward County, FL | 1,303 | 12.94 | 12.45 |
| San Diego County, CA | 1,218 | 7.07 | 7.69 | Allegheny County, PA | 446 | 5.86 | 5.97 | Suffolk County, NY | 1,424 | 16.43 | 17.25 | Palm Beach County, FL | 915 | 12.98 | 12.25 |
| Bronx County, NY | 499 | 6.17 | 7.09 | New York County, NY | 606 | 6.47 | 5.96 | Harris County, TX | 2,242 | 10.67 | 17 | Sacramento County, CA | 835 | 10.87 | 11.16 |
| King County, WA | 677 | 6.43 | 6.38 | Hillsborough County, FL | 356 | 5.71 | 5.64 | Allegheny County, PA | 1,672 | 21.96 | 15.64 | Allegheny County, PA | 863 | 11.34 | 10.94 |
| Clark County, NV | 544 | 6.12 | 6.25 | Palm Beach County, FL | 347 | 4.92 | 5.54 | Franklin County, OH | 765 | 11.83 | 14.7 | King County, WA | 1,188 | 11.29 | 10.92 |
| Bexar County, TX | 471 | 5.48 | 6.08 | King County, WA | 487 | 4.63 | 4.22 | Nassau County, NY | 1,357 | 16.92 | 14.42 | San Diego County, CA | 1,807 | 10.49 | 10.73 |
| Orange County, CA | 922 | 5.29 | 5.78 | Cuyahoga County, OH | 328 | 3.97 | 4.01 | Cuyahoga County, OH | 1,396 | 16.9 | 13.68 | Philadelphia County, PA | 949 | 10.58 | 10.65 |
| Alameda County, CA | 489 | 5.61 | 5.75 | Bexar County, TX | 312 | 3.63 | 3.68 | Bronx County, NY | 877 | 10.85 | 12.83 | San Bernardino County, CA | 1,017 | 9.47 | 10.61 |
| Santa Clara County, CA | 534 | 5.3 | 5.6 | Wayne County, MI | 441 | 3.6 | 3.65 | Dallas County, TX | 1,132 | 8.37 | 12.19 | Harris County, TX | 2,057 | 9.79 | 10.44 |
| Maricopa County, AZ | 943 | 4.85 | 5.26 | Harris County, TX | 769 | 3.66 | 3.65 | Bexar County, TX | 866 | 10.08 | 12.09 | St. Louis County, MO | 631 | 10.37 | 10.19 |
| Hillsborough County, FL | 312 | 5 | 5.04 | Maricopa County, AZ | 679 | 3.49 | 3.62 | Middlesex County, MA | 1,120 | 12.73 | 12 | Bexar County, TX | 844 | 9.83 | 10.19 |
| Wayne County, MI | 576 | 4.7 | 4.8 | Dallas County, TX | 476 | 3.52 | 3.46 | St. Louis County, MO | 739 | 12.15 | 10.78 | Riverside County, CA | 968 | 9.66 | 10.15 |
| Broward County, FL | 488 | 4.84 | 4.67 | Los Angeles County, CA | 1,780 | 3.06 | 3.14 | Tarrant County, TX | 674 | 7.47 | 10.72 | Cuyahoga County, OH | 852 | 10.32 | 10.14 |
| Kings County, NY | 648 | 4.36 | 4.59 | St. Louis County, MO | 182 | 2.99 | 3.07 | Miami-Dade County, FL | 1,365 | 9.91 | 9.41 | Dallas County, TX | 1,256 | 9.29 | 9.91 |
| New York County, NY | 418 | 4.46 | 4.35 | Riverside County, CA | 277 | 2.76 | 3 | Oakland County, MI | 617 | 8.56 | 8.97 | Wayne County, MI | 1,189 | 9.69 | 9.93 |
| Palm Beach County, FL | 332 | 4.71 | 4.25 | Tarrant County, TX | 275 | 3.05 | 2.97 | Kings County, NY | 1,154 | 7.77 | 8.16 | Tarrant County, TX | 833 | 9.23 | 9.57 |
| Oakland County, MI | 326 | 4.52 | 4.19 | Queens County, NY | 398 | 2.96 | 2.86 | Hillsborough County, FL | 472 | 7.57 | 8.11 | Oakland County, MI | 683 | 9.48 | 9.28 |
| Harris County, TX | 720 | 3.43 | 3.88 | Broward County, FL | 282 | 2.8 | 2.79 | Broward County, FL | 983 | 9.76 | 7.64 | Franklin County, OH | 586 | 9.07 | 9.13 |
| Tarrant County, TX | 291 | 3.22 | 3.57 | San Diego County, CA | 452 | 2.62 | 2.62 | Palm Beach County, FL | 880 | 12.48 | 7.47 | Miami-Dade County, FL | 1,277 | 9.27 | 9.1 |
| Cook County, IL | 1,086 | 3.38 | 3.5 | Franklin County, OH | 161 | 2.69 | 2.47 | King County, WA | 664 | 6.31 | 6.92 | Hennepin County, MN | 588 | 8.76 | 8.65 |
| Hennepin County, MN | 223 | 3.32 | 3.41 | Hennepin County, MN | 175 | 2.61 | 2.46 | New York County, NY | 653 | 6.97 | 6.86 | New York County, NY | 780 | 8.33 | 7.89 |
| Cuyahoga County, OH | 284 | 3.44 | 3.26 | Miami-Dade County, FL | 332 | 2.41 | 2.43 | Maricopa County, AZ | 1,157 | 5.95 | 6.49 | Orange County, CA | 1,323 | 7.59 | 7.89 |
| Dallas County, TX | 366 | 2.71 | 3.18 | Sacramento County, CA | 183 | 2.38 | 2.43 | Queens County, NY | 874 | 6.51 | 6.24 | Alameda County, CA | 677 | 7.77 | 7.85 |
| Queens County, NY | 405 | 3.02 | 2.96 | Alameda County, CA | 193 | 2.21 | 2.11 | Hennepin County, MN | 354 | 5.28 | 5.55 | Los Angeles County, CA | 4,306 | 7.4 | 7.82 |
| Franklin County, OH | 172 | 2.66 | 2.89 | Orange County, CA | 292 | 1.68 | 1.65 | San Bernardino County, CA | 319 | 2.97 | 4.16 | Santa Clara County, CA | 771 | 7.65 | 7.75 |
| Philadelphia County, PA | 247 | 2.75 | 2.88 | Santa Clara County, CA | 156 | 1.55 | 1.46 | Alameda County, CA | 315 | 3.61 | 4.14 | Cook County, IL | 2,349 | 7.33 | 7.26 |
| Miami-Dade County, FL | 390 | 2.83 | 2.77 | Nassau County, NY | 104 | 1.3 | 1.33 | San Diego County, CA | 542 | 3.15 | 3.48 | Suffolk County, NY | 482 | 5.56 | 5.58 |
| Allegheny County, PA | 233 | 3.06 | 2.72 | Philadelphia County, PA | 108 | 1.2 | 1.21 | Sacramento County, CA | 228 | 2.97 | 3.32 | Middlesex County, MA | 508 | 5.78 | 5.57 |
| St. Louis County, MO | 142 | 2.33 | 2.19 | Suffolk County, NY | 102 | 1.18 | 1.17 | Santa Clara County, CA | 263 | 2.61 | 3.18 | Bronx County, NY | 421 | 5.21 | 5.48 |
| Middlesex County, MA | 188 | 2.14 | 2.06 | San Bernardino County, CA | 71 | 0.66 | 0.69 | Riverside County, CA | 248 | 2.48 | 2.57 | Queens County, NY | 683 | 5.09 | 4.92 |
| Suffolk County, NY | 179 | 2.07 | 1.95 | Middlesex County, MA | 38 | 0.43 | 0.41 | Los Angeles County, CA | 612 | 1.05 | 1.28 | Kings County, NY | 682 | 4.59 | 4.65 |
| Nassau County, NY | 113 | 1.41 | 1.24 | Oakland County, MI | 25 | 0.35 | 0.34 | Orange County, CA | 153 | 0.88 | 1.04 | Nassau County, NY | 355 | 4.43 | 4.34 |

*Age adjusted to the 2010 population.

Graphic #2 - Nevadans live hard, risk lives

Premature deaths, by state

In Nevada, more than 32,000 people — about a third of all deaths from 1999 and 2004 — died before age 65.

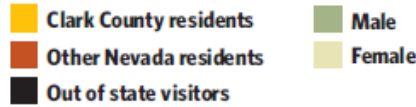
| State | Count | Rate* |
|----------------------|---------------|---------------|
| District of Columbia | 13,038 | 438.14 |
| Mississippi | 52,716 | 349.18 |
| Alabama | 78,560 | 336.69 |
| Louisiana | 79,274 | 334.84 |
| West Virginia | 30,563 | 332.65 |
| South Carolina | 69,883 | 325.08 |
| Arkansas | 45,136 | 323.71 |
| Tennessee | 97,489 | 321.74 |
| Oklahoma | 55,786 | 307.92 |
| Kentucky | 65,260 | 304.71 |
| Florida | 234,491 | 285.94 |
| Nevada | 32,368 | 285.13 |
| North Carolina | 121,723 | 279.83 |
| Georgia | 127,690 | 277.48 |
| Missouri | 80,790 | 274.77 |
| Delaware | 11,186 | 267.57 |
| Maryland | 76,291 | 265.23 |
| Pennsylvania | 163,921 | 262.37 |
| New Mexico | 25,601 | 261.64 |
| Ohio | 153,603 | 259.14 |
| Indiana | 83,428 | 258.49 |
| Michigan | 134,779 | 255.81 |
| Wyoming | 6,686 | 253.92 |
| Montana | 11,850 | 250.93 |
| Arizona | 69,542 | 247.98 |
| Illinois | 160,630 | 242.62 |
| Virginia | 92,351 | 239.67 |
| Texas | 273,234 | 235.04 |
| Alaska | 8,461 | 234.94 |
| Maine | 15,506 | 233.77 |
| New Jersey | 103,105 | 231.82 |
| Kansas | 32,551 | 230.75 |
| New York | 229,629 | 230.05 |
| Oregon | 42,025 | 229.83 |
| South Dakota | 8,920 | 228.28 |
| Rhode Island | 11,963 | 219.98 |
| Connecticut | 38,089 | 213.46 |
| Hawaii | 13,516 | 211.25 |
| Wisconsin | 59,684 | 211.09 |
| Massachusetts | 69,233 | 208.82 |
| Nebraska | 18,548 | 207.16 |
| Vermont | 6,651 | 207.16 |
| Idaho | 14,669 | 206.85 |
| Iowa | 30,998 | 206.71 |
| Washington | 66,228 | 206.54 |
| North Dakota | 6,670 | 204.47 |
| Colorado | 48,607 | 202.35 |
| California | 376,006 | 202.06 |
| New Hampshire | 13,133 | 196.97 |
| Minnesota | 47,501 | 180.31 |
| Utah | 21,386 | 168.78 |

*Rate is the actual number per 100,000 people

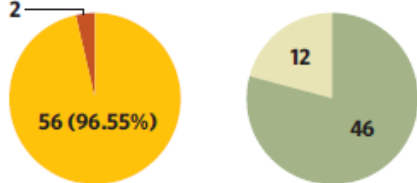
Graphic #3 - Nevadans live hard, risk lives

Snapshots from Clark County death certificates

The CDC gathers demographic information from every American's death certificate. This snapshot from 2004 breaks down the Clark County residents who died of alcoholic liver disease, drug overdose, sepsis (blood poisoning) and suicide.

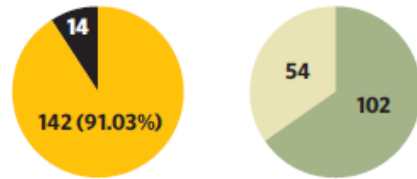


Alcoholic liver disease 58 total



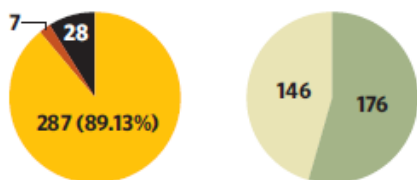
Average age **55.9** Median age **55** Per 100,000 **3.52**

Overdose (Narcotic/Hallucinogen) 156 total



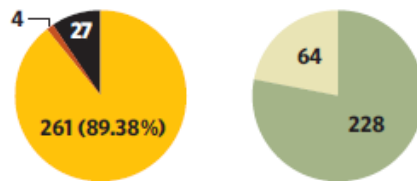
Average age **40.4** Median age **42** Per 100,000 **9.46**

Blood poisoning/Infection 322 total



Average age **69.8** Median age **72** Per 100,000 **19.53**

Suicide 292 total

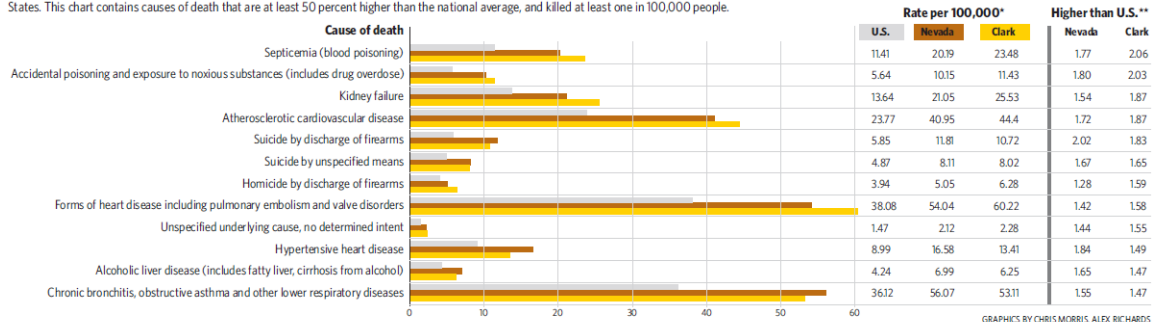


Average age **46.9** Median age **46** Per 100,000 **17.71**

Graphic #4 - Nevadans live hard, risk lives

How Clark County and Nevada compare to the rest of the United States

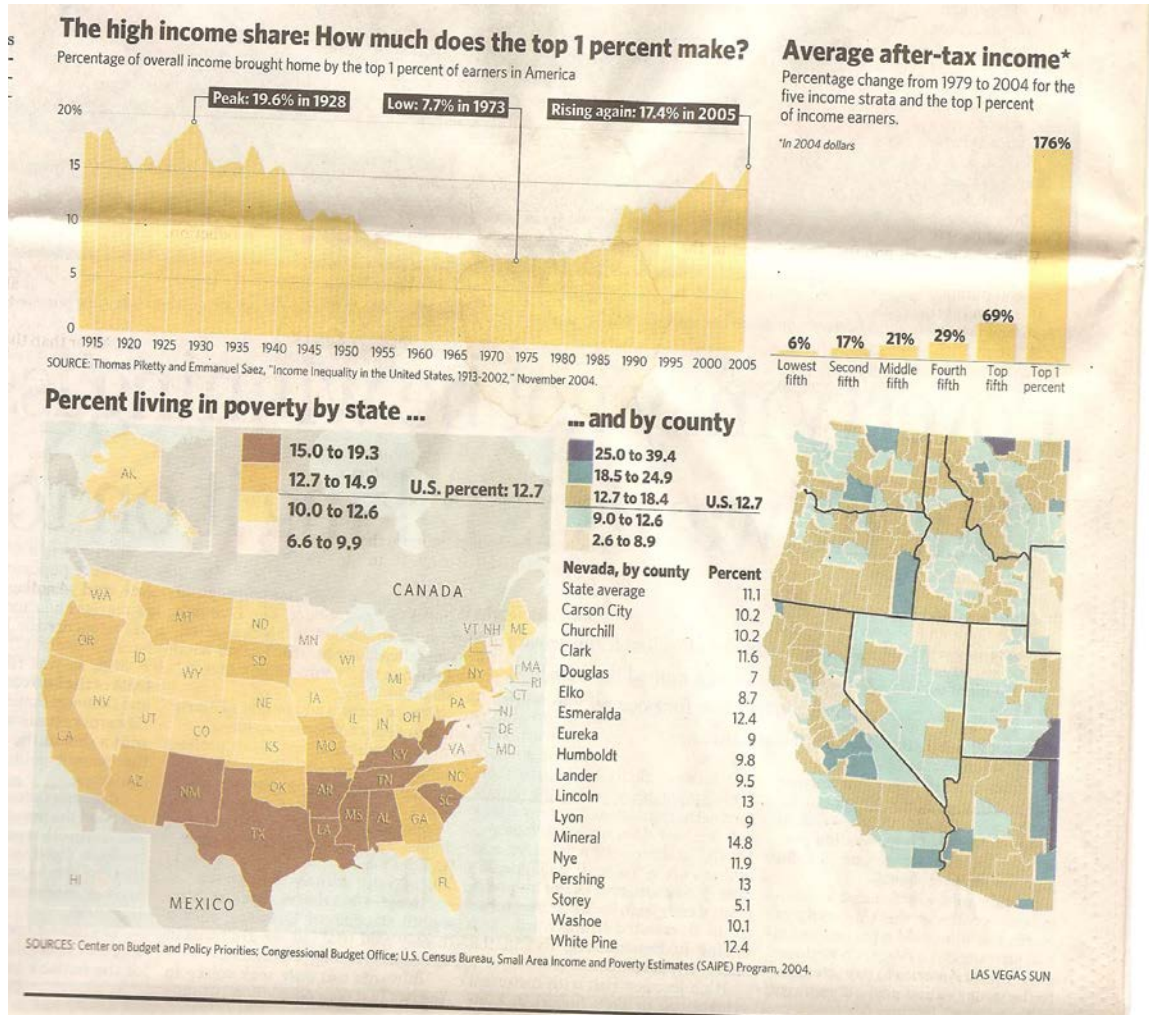
The Centers for Disease Control and Prevention mortality database shows people die in Nevada and Clark County from higher rates of substance abuse, certain chronic diseases and suicide compared to residents in the United States. This chart contains causes of death that are at least 50 percent higher than the national average, and killed at least one in 100,000 people.



Poverty and income in the United States

By Chris Morris and Alex Richards

Las Vegas Sun, July 12, 2007



Henderson is valley's first stop for million-dollar homes; NLV last
By Mike Trask and Alex Richards
Las Vegas Sun, July 15, 2007

For all the challenges they share as two of the fastest-growing cities in the country, Henderson and North Las Vegas are at opposite ends of the spectrum when it comes to million-dollar homes.

Per capita, Henderson far and away has the most million-dollar homes in the Las Vegas Valley, and North Las Vegas the fewest.

Of the 5,953 single-family residential properties appraised at more than \$1 million by the Clark County assessor's office--a figure that doesn't include luxury condo complexes--only 10 are in North Las Vegas, recently named the fastest-growing city in the country by the Census Bureau.

In comparison, Henderson has 1,888 homes appraised at more than \$1 million.

The discrepancy shows how residents in two of the five largest cities in the state live different lifestyles.

North Las Vegas has remained a blue-collar town and even its nicest communities feature homes within the financial grasp of the middle class.

The most expensive homes in North Las Vegas aren't as grand as their \$1 million price tags might suggest. They derive much of their value from their acreage. Seven of the 10 homes are less than 3,500 square feet.

And North Las Vegas' median single-family home value is about \$60,000 less than that of a Henderson home, \$267,203 to \$329,700. The median appraised value of a home in all of Clark County was \$289,446.

Although North Las Vegas may be mansion-challenged, it's overcoming its reputation for hardscrabble neighborhoods.

As the master-planned community Aliante continues to grow and the planned 15,000-home Park Highlands starts to take shape, a few more \$1 million homes will likely pop up.

North Las Vegas is simply trailing Las Vegas and Henderson in its residential makeover, City Manager Gregory Rose said.

For now, the lower property values contribute to a statistic frowned on by North Las Vegas residents. Currently, North Las Vegas has the highest property tax rate in Clark County--\$1.18 for every \$1,000 of assessed value.

In comparison, Henderson's property tax rate is 71 cents per \$1,000.

The reasons for Henderson's rise as an upper-middle class suburb are obvious.

"Where are the golf courses?" said Dennis Smith of Home Builders Research. "Lake Las Vegas, Summerlin, MacDonald Ranch." Two of those neighborhoods are in Henderson.

Smith and other real estate analysts say economics and demographics explain why North Las Vegas is growing quickly while remaining firmly middle-class .

North Las Vegas has a median household income of \$45,227 , compared with \$65,667 in Henderson, according to the 2007 Las Vegas Perspective, a statistical abstract published by the Nevada Development Authority. The countywide median household income is \$47,320.

So North Las Vegas lacks the wealthier communities that Henderson boasts, such as Lake Las Vegas, where the median household income stretches into the six figures.

On the other side of the valley, the median family income in Summerlin tops \$72,000 and 12 percent of all single-family homes are appraised at more than \$1 million. Las Vegas has 1,708 residential properties valued at more than \$1 million, second most among Southern Nevada's municipalities.

But Henderson is disproportionately represented in the million-dollar-home club, with nearly a third of the valley's highest-end homes. Las Vegas has almost as many--but has five times the population of Henderson.

"A \$1 million home is generally beyond the reach of all but the top 1 percent of the population," said Steve Bottfeld, executive vice president of Marketing Solutions, a housing-market analyst. "It's still something pretty special."

And luxurious homes breed luxurious homes. After all, most people are reluctant to trailblaze a neighborhood with the first million-dollar manse.

"You could," Bottfeld said. "But it wouldn't sell."

But dozens of \$1 million homes sell each year in the valley.

The median sale price of a valley home was \$310,000, according to the 2007 Las Vegas Real Estate Market Semi-Annual Review by Sotheby's International Realty. But the numbers spiked in some Henderson neighborhoods.

In 2006 the average sale price for a home in the Seven Hills was almost \$2.4 million, according to the study. Homes in Anthem Country Club and MacDonald Highlands cost more than \$1.5 million.

Although it's possible to stereotype million-dollar neighborhoods, not so the owners. They include, in Lake Las Vegas, headliner Celine Dion and, in North Las Vegas, Janet Combs, a member of a family of pig farmers.

Making money, raising eyebrows
By Steve Kanigher and Alex Richards
Las Vegas Sun, July 15, 2007

Gov. Jim Gibbons and top Nevada legislators may have failed last week to persuade the state public employees' pension fund to dump its investments in Sudan, but the complaint they lodged is just the beginning.

An examination by the Sun shows that the pension fund's \$23 billion portfolio contains investments in companies that do business with rogue nations or whose practices contribute to social or environmental ills in direct opposition to United States and Nevada policies.

Gibbons and other state officials asked the Public Employees' Retirement System to divest its investments in companies with interests in Sudan because of genocide in the Darfur region. One-third of state governments have done so.

Nevada's PERS declined.

The amount involved in Sudan-related companies is small, \$1.3 million. That is far less than the amounts the Sun found invested in other companies that governments across the United States have found objectionable enough to warrant divestiture.

Some of those investments surprised state officials, who told the Sun that Nevada needs to review those holdings.

For example, PERS has hundreds of millions of dollars invested in companies that do business in Iran, which the United States accuses of sponsoring terrorists. The fund invests in firms accused by critics of war profiteering (Halliburton), using child labor (Nestle) and furthering toxic pollution (Newmont Mining Corp.).

Although Nevada has waged a lengthy battle to prevent a nuclear waste repository at Yucca Mountain, PERS invests in companies that want to ship nuclear waste to the state.

Some of those same investments also can be found in two smaller state pension funds for Nevada judges and state legislators, a Sun analysis of pension records as of June 8 shows.

As with private investments, public investments sometimes pose difficult decisions weighing economic returns against moral or social considerations. To frame the quandary: If a company offers the prospect of 20 percent annual returns, but does so by

relying on environmentally questionable methods, should an investment in it be judged by pocketbook or by conscience?

PERS covers state and local government workers, teachers, professors and some hospital employees. By law, the system must follow financially prudent investment strategies for its 98,000-plus active members and more than 33,000 retirees and beneficiaries. It is overseen by a seven-member board appointed by the governor but operated as an independent agency.

The system has not blacklisted any stocks based on politics, social causes or other reasons—even if some investments run counter to Nevada's interests.

Dana Bilyeu, the pension fund's executive officer, said she is aware of competing objectives involved when sound investments are weighed against socially responsible ones. She and others say forcing state investments to pass through a prism of politics or social concerns is problematic, among other reasons because it can create a subjective and shifting standard.

Even if such judgments are to be made, many think they should be made by legislators, not pension-fund managers.

Divestment is financially risky, Bilyeu said, especially if it involves a profitable stock that is difficult to replace. California, for example, lost hundreds of millions of dollars after dumping tobacco stocks and other objectionable holdings, she said.

"There are a lot of worthy social causes, but we cannot substitute our judgment on social issues for the fiduciary duties we have to our members and beneficiaries," Bilyeu said.

Others, however, do not see the social and financial questions as separate.

Missouri Treasurer Sarah Steelman last year persuaded that state's employees' pension board to limit international investments to companies without ties to terrorist regimes.

"This is about the safety of our families and our country, and there is no effort that should be spared from those causes," Steelman said. "I fought my hardest for nine months and finally the strength of the argument won out.

"We should not fund terrorism with our tax dollars. It's that simple."

Among the investments dropped was one in the Arab Bank of Jordan, which had been "paying suicide bombers' life insurance policies," said Kelly Gunderson, a spokeswoman for Steelman.

"We wanted to make sure our state's money wasn't involved in that."

To date, Missouri's position has not had an economic downside. During its first eight months, Missouri's "terror-free" investment fund posted an enviable 27 percent return--more than three times the Nevada fund's fiscal 2006 performance.

Nevada Treasurer Kate Marshall is looking at the possibility of instituting a similar policy. Although the pension fund may not have taken action on the investments in Sudan, Marshall said she wants to pursue a terror-free investment policy. She has directed her staff to develop rules to ensure that state treasury funds are not invested in governments engaged in terrorist activities.

In the past, anti-smoking organizations and other advocacy groups have tried to persuade Nevada's pension board to divest from certain companies.

Those efforts included a proposal by former Sen. Joe Neal, a North Las Vegas Democrat. In the 1970s and 1980s Neal wanted the state to prohibit the pension fund from investing in businesses with ties to South Africa because of its apartheid policies.

The pension board voted in 1986 to restrict investments in South Africa. But the policy was nullified by then-Nevada Attorney General Brian McKay, whose office issued an opinion saying that divestment in South Africa would not be financially prudent and that, in any event, such sanctions were the purview of the Legislature.

Today, about 45 percent of Nevada's pension fund is invested in U.S. stocks, 10 percent invested in foreign stocks and the balance in domestic and foreign bonds and other investments. The pension board sets investment policy such as profit goals, but the individual stocks are selected by 19 fund managers.

In its report for fiscal 2006, the fund recorded an 8.8 percent return on its investments and boasted that its performance ranked among the top 10 percent of public pension funds.

The Sudan issue arose June 7. Gibbons, Senate Majority Leader Bill Raggio, R-Reno, and Assembly Speaker Barbara Buckley, D-Las Vegas, asked the pension fund to divest itself of \$1.3 million in French power-generation company Alstom and Swedish oil-and-gas company Lundin Petroleum. The companies do business in Sudan, where government troops and ethnic militia have killed at least 200,000 people and displaced at least 2 million others since 2003.

The request followed actions by other states. In September, California became the first of 18 states to divest from companies that do business in Sudan, according to the Sudan Divestment Task Force, a Washington-based Genocide Intervention Network project.

But Wednesday, Ken Lambert, PERS investment officer, said that although the group is "sensitive to the issue," it will not divest .

That decision, Gibbons said, could spawn legislation in 2009 requiring the pension system to shed investments in companies that do business in countries that support terrorism or commit human rights violations.

"We would like for them to do it voluntarily ... rather than have it dictated," the governor said. Raggio said , despite signing the Sudan divestment letter, he would prefer Congress handle the issue.

Raggio and Buckley said they would not try to change other PERS investments. "The priority needs to be the fiscal soundness of the investment," Raggio said.

Making value judgments, Buckley said, puts the state in the position of making "investment decisions based on whichever way political winds are blowing." In part because of the prevalence of that attitude, few questions have been raised--at least not through official channels--about other state investments that also raise flags.

Aside from Alstom and Lundin Petroleum, the Sun identified nearly \$156 million that the pension fund has invested in foreign corporations or their subsidiaries with ties to Iran and other rogue regimes.

Florida this year became the first state to divest from publicly traded companies doing business in Iran. Six of those companies are part of Nevada's pension portfolio.

The Wall Street Journal reported that at least 14 states are considering similar actions. Such efforts are opposed by the Bush administration on the grounds that the states would be interfering with diplomatic efforts to isolate Iran.

The conservative-leaning Center for Security Policy in Washington, which specializes in national security issues, has been leading the effort to encourage divestment in companies that do business with Iran and other rogue nations.

The center has developed a "dirty dozen" list of foreign companies, and Nevada's pension plan includes nine of them.

Bilyeu's response is that none of the companies shows up on the U.S. Treasury Department's list of terrorist-related businesses. All American citizens and pension

funds are barred from investing in any of the companies on the list, greatly expanded by an executive order signed by President Bush shortly after the 9/11 terrorist attacks.

Because the pension fund's foreign investments are largely in Japan and Europe, and with most of the banned companies in emerging Third World markets, Bilyeu said the fund never invested in any of the firms since blacklisted by the federal government. The pension board should not make judgments about companies purportedly tied to terrorist regimes if the federal government has not blacklisted them , Bilyeu said.

"Those are foreign policy issues," she said. "Those are the kinds of things where we as a nation need to speak with one voice."

Nevada, however, has more than one voice on the controversial nuclear waste issue.

As of June 8 the pension fund held \$259.45 million in 19 corporations that, either directly or through subsidiaries, operate nuclear power plants in the United States.

All 19 are members of the Nuclear Energy Institute, the leading industry advocate of the federal plan to ship high-level nuclear waste to Yucca Mountain, 90 miles northwest of Las Vegas. Combined, the companies operate 83 of the nation's 104 commercial nuclear reactors.

The investments in those companies represent slightly more than 1 percent of the \$22.8 billion in the pension fund's assets.

The fund's holdings include \$41.2 million in Exelon Corp., \$22.7 million in Dominion Resources Inc. and \$19.5 million in TXU Corp., which control nuclear power plants from Texas to the Northeast. Closer to home are investments in PG&E Corp. and Edison International, which operate nuclear power plants in California , and Pinnacle West Capital Corp., which oversees plants near Phoenix.

In addition, the fund's single largest stock holding is \$278.2 million in General Electric Co., which builds nuclear reactors and is a member of the Nuclear Energy Institute.

Separately, the Judicial Retirement System had almost \$400,000 invested in nuclear power companies and the Legislative Retirement System has slightly more than \$60,000.

Because of Nevada's two-decade battle against efforts to turn Yucca Mountain into a nuclear waste dump, there is an unmistakable dissonance to those investments.

Gibbons, like most of the state's leaders, opposes the dump. Melissa Subbotin, Gibbons' press secretary, took questions from the Sun on the pension fund investments but did not call back with answers.

Bob Fulkerson, director of the Progressive Leadership Alliance of Nevada, a liberal political group, called the investments in Nuclear Energy Institute members disappointing.

"We should not be aiding and abetting our enemies," Fulkerson said.

Similarly, Yucca Mountain critic Bob Loux, executive director of Nevada's Agency for Nuclear Projects, said the holdings underline "a disconnect between the investment strategy of the PERS board and Nevada policy."

"I had no idea it was occurring," Loux said. "It does help the companies pay their dues to the Nuclear Energy Institute, and the NEI has lobbyists, although they have not been effective on Capitol Hill. If I didn't think Yucca Mountain was on its last legs, I'd be a little more concerned."

Buckley, while noting that Congress, not the utilities, designated Yucca Mountain as the nation's nuclear waste dump site, said the investments are "definitely worthy of review by the Legislature."

With mining being a prominent industry in Nevada, it is no surprise that mining companies are represented in the state's portfolio.

But three holdings--Newmont Mining (\$9.7 million), Rio Tinto Group (\$8.3 million) and Barrick Gold (\$1.5 million)--own six of the nine top polluting mines in the nation in terms of pounds of toxic chemicals released, according to the Environmental Protection Agency's latest toxic release inventory in 2005. Combined, those mines released 424.8 million pounds of toxic chemicals that year, including arsenic and heavy metal compounds.

"It's disgusting that our state is investing in companies that are wrecking the world," Fulkerson said. "Ideally, investments should bring in a high rate of return but involve companies that are socially responsible."

Nevada Center for Public Ethics President Craig Walton said he thinks PERS should meet with its members to consider establishing a socially responsible fund.

When Walton taught at UNLV, he invested in a socially responsible fund with the Teachers Insurance and Annuity Association, a nationwide pension plan for professors.

"The whole practice of socially responsible investing has been around for decades," Walton said. "You invest in companies that aren't exploiting workers or companies that

are environmentally responsible, such as those that have policies of reforestation so that when they cut down trees they replant."

Walton also has a ready answer for those who argue that introducing social concerns into investment strategies could put the state on a slippery slope.

"Nevada's public employees have consciences," Walton said. "They shouldn't be told by anyone that their consciences are irrelevant to the investment packages."

Sun reporters Mary Manning and Cy Ryan contributed to this story.

In politics, Nevadans give and give

By Michael J. Mishak and Alex Richards

Las Vegas Sun, July 20, 2007

Quick now: Which of the early voting states has more people per capita who give money to presidential candidates?

Iowa, where politics are as common as cornfields?

New Hampshire, where town hall meetings flow as freely as maple syrup?

Or how about Nevada, that reputedly apathetic intruder in next year's presidential primary season?

If you chose the Silver State, you probably love all things Nevadan. But you're right.

A review by the Sun of campaign contributions for the first half of 2007 shows Nevada residents are much more likely to give money than their counterparts in the two states that traditionally play leading roles in choosing presidential nominees.

Electorates in Iowa and New Hampshire are accustomed to presidential politics because, until this year, they were the first two states to hold presidential contests during primary season.

After Nevada snuck between them on the calendar for 2008, critics argued that the state has no similar tradition of citizen involvement in politics and thus was a poor choice for an early contest.

Yet, although the candidates have stopped in Nevada far less often than in Iowa or New Hampshire, their visits have drawn large crowds and intense media coverage. The Sun's findings about contributions also suggest that the state's residents are quickly getting involved.

According to the Sun's review of contributions: For every 100,000 citizens, 52 Nevadans contributed to a candidate. In Iowa, the number is 25, and in New Hampshire, 48.

At first blush, those numbers are surprising.

Nevadans twice as likely to contribute to presidential candidates as Iowans are? Nevadans more invested in campaigns than residents of New Hampshire are? Both of those states have long proclaimed themselves proud barometers of national sentiment.

But political observers in Iowa and New Hampshire are hardly amazed by the low level of giving in their states. Neither place, they say, is known as a political money center. Iowa's economy, for instance, is dominated by agriculture. And although the state now gets a significant portion of its revenue from gaming, Iowa's gaming operators don't have the ATM reach of the Las Vegas Strip.

Beyond that, Iowans mostly keep their minds open and their wallets closed when it comes to presidential candidates, observers there say .

"Iowans tend to be tight with their money altogether," said Peverill Squire, professor of political science at the University of Iowa and a caucus expert. "They are probably more likely to commit their time and efforts to campaigns than their wallets."

David Yepsen, political columnist for the Des Moines Register, said campaign contributions were an unfair marker of political involvement in Iowa.

"Giving money is one way to measure civic engagement," he said . "Showing up for the caucus on a cold January night is another."

Also, Iowa lacks the dense urban centers where big-money donors often live, Squire said. Des Moines, the state's largest city, has fewer than 200,000 people.

Yepsen noted wryly: "I would imagine that there is some wealth in a place like Las Vegas."

In New Hampshire, residents are accustomed to keeping their dollars close. The state has neither a sales tax nor an income tax, and despite having one of the highest median household incomes in the country, it has one of the lowest charitable-giving rates.

"New Hampshire is historically and notoriously cheap," said Andrew Smith, professor of political science at the University of New Hampshire and director of the school's survey center. "When it comes to politics, we usually say it's a great place to spend money , but you can raise it somewhere else."

Keith Schwer, director of the Center for Business and Economic Research at UNLV, said money and politics have long been bedfellows in Nevada, citing the recent trial of Erin Kenny, a former Clark County commissioner who took bribes from a strip club owner.

"We're accustomed to spending money in the political arena to get things done," Schwer said, tongue mashed against cheek.

"In the small states, you don't spend money," he said. "There, you have to know somebody."

In Nevada, the gaming industry is king--and the source of much of the state's political contributions. Republican Sen. John McCain, for instance, seems to have benefited handsomely from his relationship with MGM Mirage Chief Executive Terry Lanni, who sits on McCain's national finance committee. MGM Mirage executives contributed a combined total of \$48,500 to McCain's campaign in the last quarter.

"Our economy is not diversified," Schwer said. "We have a very large industry that has issues on the table , and they want access."

David Damore, professor of political science at UNLV, agreed.

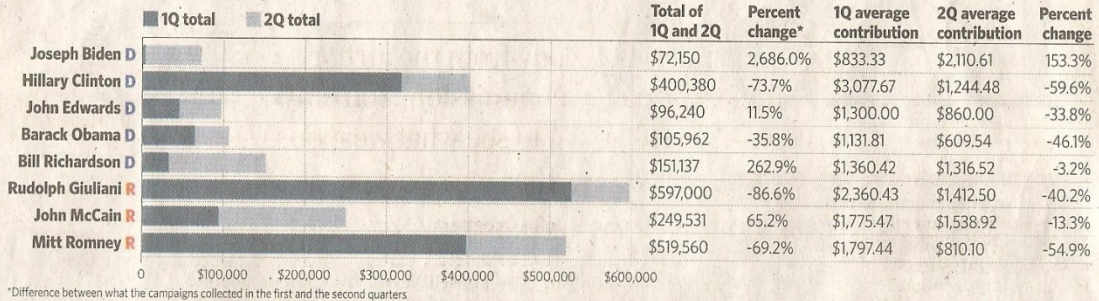
"Iowa and New Hampshire don't need to buy their attention," Damore said. "Nevada on the other hand is heavily dependent on the federal government. Its whole life blood could be regulated out of business."

Graphic #1 - In politics, Nevadans give and give

FRIDAY, JULY 20, 2007

Change in candidates' Nevada fundraising efforts for the first half of 2007

Large contributions pushed John McCain to the front of the second-quarter fundraising pack in Nevada, along with fellow Republican Mitt Romney and Democrat Bill Richardson. A sharp decline in financial support for most candidates since April has kept the donations static — Rudy Giuliani, Romney and Hillary Clinton have received the most money from Nevadans overall.



Where the campaign support is coming from in the second quarter

Mitt Romney's second quarter support came in greater numbers, but smaller denominations. Almost 85 percent of his Nevada contributions in the second quarter were less than \$1,500, yet only John McCain's campaign generated more money. Where each campaign was getting help:



SOURCE: PoliticalMoneyLine; Federal Election Commission

LAS VEGAS SUN

Elders deepen tragedy of state's suicide rate

By Marshall Allen and Alex Richards

Las Vegas Sun, August 5, 2007

The suicide rate among elderly Nevadans is nearly three times the national average, according to a Sun analysis of government mortality figures--a statistic that raises more speculation and questions than answers.

Nevada has long been known to have the highest suicide rate in the country, about twice the national average. Most striking within that data, the Sun found, was that the state also ranks first in the nation by an even larger margin in the number of elder suicides, based on data provided by the Centers for Disease Control and Prevention.

The possible reasons, experts speculate: Nevada's elderly are more lonely and more addicted to gambling than their peers in other states, and have fewer resources to help them cope.

The Centers for Disease Control registers every American death since the 1950s, providing such details as location, cause of death and general demographic information about the deceased.

From 1999 to 2004, the suicide rate among people older than 75 in Nevada was 48 per 100,000, compared with a national average of 17 per 100,000. Wyoming is the second highest ranking state in the same age range, with a rate of 40 per 100,000.

"(Elder suicide) is certainly something that's on our mind because of the fragile nature of some of the seniors we deal with," said Marilyn Wills, director of the Nevada Division of Aging Services. "We find many of the seniors here are pretty isolated from family and friends."

Las Vegas is one of the most transient places in the nation, and many seniors may have moved to the city to be near family, only to have them move away, Wills said. Or, a person may have moved here with a spouse who later passed away. Many seniors have no family in the area, and don't have the health or resources to make friends, Wills said. That isolation leads to depression, which correlates with poor self care and health problems, she said.

The CDC data has limitations. It says what happened, but doesn't explain why people kill themselves. And there can be variances based on human error and the way states and individual coroners classify causes of death.

Nevada experts cite many factors that contribute to suicide, including terminal illness, financial strain, isolation and gambling--all exacerbated in Nevada by a scarcity of mental health resources. But there is rarely a discernible single reason people commit suicide.

"The biggest challenge with suicide research is that the people you really want to talk to are dead," said Matt Wray, a UNLV sociologist who specializes in the study of suicide.

The Sun's analysis revealed other characteristics of suicide in Nevada.

Dorothy Bryant, director of the Suicide Prevention Center of Clark County, said some out-of-towners commit suicide here because it gives them notoriety back home, and others are intent on killing themselves but first want to go on a gambling binge or pursue other indulgences.

Public policy conversations about elder suicide are hampered by social stigma and age discrimination, said Laurie Moore, director of the Senior Mental Health Outreach Program. She said that because suicide seems more acceptable at an older age, there is less compunction to take action to stop it than with suicides among young people, when the event is widely considered to be very tragic.

And yet "there's a lot of pain behind those numbers," Moore said of the senior suicide rate.

Nevada's rapid growth and its underdeveloped mental health infrastructure also contribute to the problem, said Moore. It can take three months for an uninsured person to get an appointment with a psychiatrist, another expert said.

On July 23 Senate Majority Leader Harry Reid, D-Nev., introduced the Stop Senior Suicide Act to establish grants for elder suicide prevention and to improve mental health efforts. Reid, whose father killed himself, said in an e-mail to the Sun that the problem demands a response because "it affects everybody--family members, friends, the entire community."

Gambling is part of the fabric of Nevada and research has shown that gambling addiction is a contributing factor to suicide, researchers say. Wray, who is on a two-year fellowship at Harvard University, said addictive gambling among senior citizens is part of the suicide problem.

Research by Paul D. Shapiro, a former UNLV professor who teaches sociology at Georgia Southwestern State University, helps quantify problem gambling among senior citizens, which could help explain Nevada's high rate.

The study randomly surveyed 449 Clark County residents older than 55 to find their risk of problem gambling behavior. More than a third said they gambled for recreation and one in four moved to Las Vegas, in part, to gamble, the study showed.

The study also revealed that 13 percent of seniors were at risk of problem gambling in the past year. Risk factors included having trouble at work because of gambling, breaking up with a partner because of gambling, gambling to forget problems and writing bad checks or stealing money to gamble. Two percent of senior citizens surveyed were shown to be problem gamblers in the past year, and 2 percent more were considered pathological gamblers.

UNLV'S Wray said that as Nevada's population continues to age, it is incumbent to better understand what is causing such a proportionately high number to kill themselves.

The answers for now are elusive, he said.

"We don't know why there's a higher rate of suicide among seniors in Clark County, and yet we are holding the door wide open and saying 'Come on down,' " Wray said. "We should look more carefully. Is there something toxic, or lethal, about the environment? Or are we attracting seniors who are predisposed to suicide?"

Graphic #1 - Elders deepen tragedy of state's suicide rate

REID AUTHORS STOP SENIOR SUICIDE ACT

the study of suicide.

The Sun's analysis revealed other characteristics of suicide in Nevada.

• Nevada ranks third, behind Washington, D.C., and New York, in the percentage of non-residents who commit suicide. Almost 11 percent of suicides in Nevada are people from out of state, compared with a national average of about 4 percent.

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• Similar to national trends, more than half of Nevada suicides from 1990 to 2004 are by firearm, and about 15 percent are by overdose or by strangling/hanging.

• Although the suicide rate is higher in rural versus urban Nevada, 65 percent of the state's suicides from 1999 to 2004 — 1,733 of 2,666 — occurred in Clark County.

Public policy conversations

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Marshall Allen can be reached at 259-2330 or at marshallallen@lasvegassun.com. Alex Richards can be reached at 259-4085 or at alex.richards@lasvegassun.com.

Top 25 ranking of suicide rates

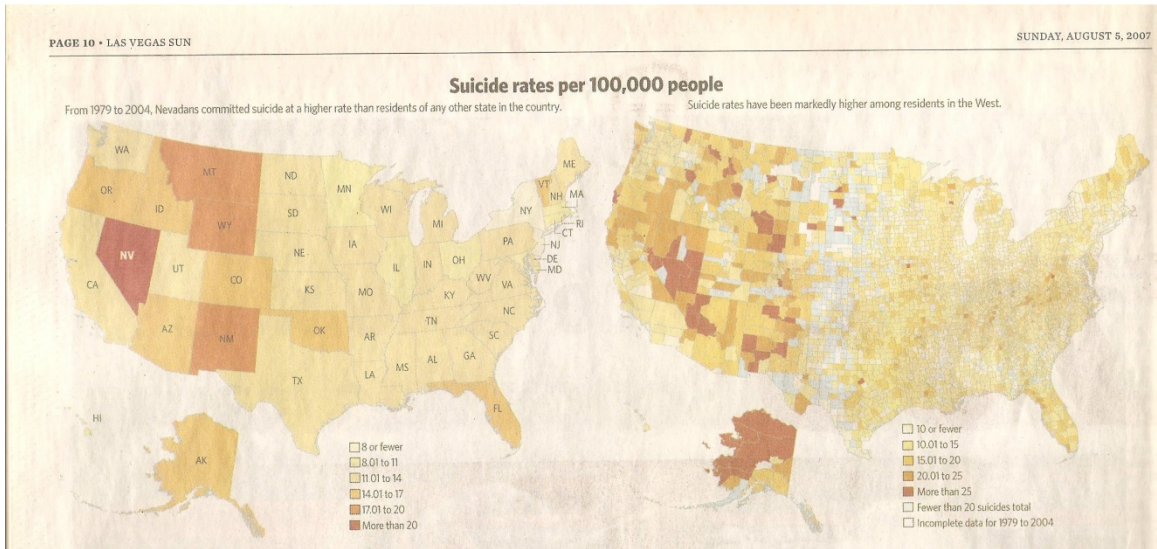
High suicide rates aren't a recent development in Nevada. We're consistently at the top of charts, above a collection of other western states that also have troublesome suicide rates. Although the rate has decreased since 1979, it doesn't change our position in relation to the rest of the country.

| 1979-84 | | 1989-94 | | 1999-04 | |
|----------------|-------|----------------|-------|----------------|-------|
| State | Rate | State | Rate | State | Rate |
| Nevada | 27.47 | Nevada | 25.77 | Nevada | 20.84 |
| New Mexico | 18.73 | Montana | 19.27 | Wyoming | 19.55 |
| Wyoming | 18.61 | Wyoming | 19.24 | Alaska | 18.79 |
| Colorado | 17.21 | New Mexico | 18.58 | New Mexico | 18.79 |
| Arizona | 17.07 | Arizona | 18.25 | Montana | 18.67 |
| Montana | 16.54 | Colorado | 16.72 | Colorado | 15.77 |
| Florida | 16.62 | Idaho | 16.6 | Arizona | 15.55 |
| Vermont | 16.14 | Oregon | 16.16 | Oregon | 15.24 |
| Oregon | 14.87 | Florida | 15.46 | West Virginia | 15.21 |
| California | 14.68 | Vermont | 14.92 | Idaho | 15.14 |
| Idaho | 14.48 | Alaska | 14.5 | Oklahoma | 14.55 |
| Maine | 13.69 | Utah | 14.34 | Utah | 14.38 |
| Oklahoma | 13.55 | Oklahoma | 13.62 | Florida | 13.61 |
| Washington | 13.51 | Washington | 13.53 | South Dakota | 13.58 |
| Utah | 13.33 | Maine | 13.48 | Vermont | 13.49 |
| Virginia | 13.3 | West Virginia | 13.45 | Tennessee | 13.47 |
| Tennessee | 13.22 | Tennessee | 13.36 | Arkansas | 13.42 |
| Kentucky | 12.74 | Kentucky | 13.3 | North Dakota | 13.15 |
| Alaska | 12.7 | Missouri | 13.28 | Washington | 12.93 |
| West Virginia | 12.68 | South Dakota | 13.09 | Missouri | 12.88 |
| Louisiana | 12.57 | Louisiana | 12.63 | Kentucky | 12.86 |
| Georgia | 12.58 | Georgia | 12.55 | Maine | 12.64 |
| North Carolina | 12.5 | New Hampshire | 12.54 | Alabama | 12.17 |
| Missouri | 12.49 | Texas | 12.53 | North Carolina | 11.82 |
| Wisconsin | 12.45 | North Carolina | 12.52 | New Hampshire | 11.76 |

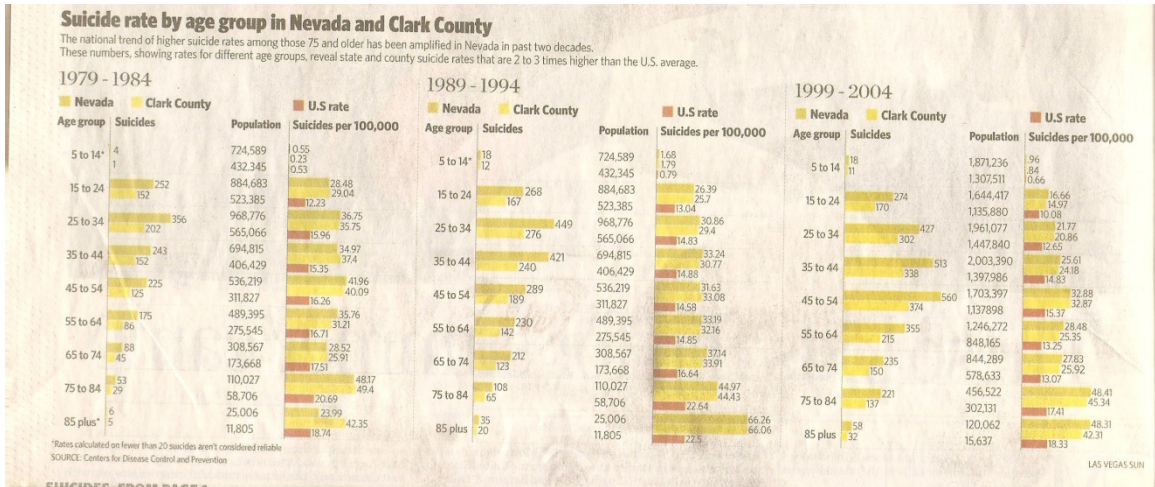
SOURCE: Centers for Disease Control and Prevention

LAS VEGAS SUN

Graphic #2 - Elders deepen tragedy of state's suicide rate



Graphic #3 - Elders deepen tragedy of state's suicide rate



Nevada's new hue

By Michael J. Mishak and Alex Richards

Las Vegas Sun, September 9, 2007

A funny thing happened in red-state Nevada over the past year. It turned blue.

An analysis of voter registration reports over the past 12 months shows many more new voters are registering as Democrats--enough to tilt Nevada to a considerable Democratic majority for the first time since the 1992 presidential election.

Back then, Nevada was a solid blue state. Registered Democrats outnumbered registered Republicans by 7 percentage points, and the state voted for Bill Clinton.

Today, the unpopular Iraq war and enthusiasm for the Democratic presidential caucuses are playing major roles in giving Nevada Democrats their first significant registration advantage in 15 years.

The details:

As of August, Democrats outnumbered Republicans by about 2,800 "active voters," a subset of total registration introduced last year that is considered more accurate because it counts only those voters whose addresses are still valid. The state has 1,033,569 active voters.

Nevada Republicans had held the voter registration edge for the past three presidential elections. At the close of registration for the 2006 election, Republicans outnumbered Democrats by about 7,000 active voters.

Republicans claimed victory at the top of the ticket in November, winning the governor's mansion. But they narrowly beat back Democratic challenges in two congressional races, and Democrats swept all but one of the remaining statewide offices.

Democrats seem to have made their move when the Nevada Democratic Party began preparations last fall for the state's second-in-the-nation presidential caucuses.

Six months after the election, Democrats had retaken the majority, having picked up speed in February--the month of the first-in-the-nation Democratic forum in Carson City--and surpassing Republicans in April, as candidates campaigned here. The gains, for the most part, have been in Clark County.

Party officials, political scientists and local historians attribute the Democratic surge largely to the caucuses, which have attracted monthly visits from the party's leading

presidential candidates, in addition to dozens of paid campaign organizers who travel the state registering voters and seeking support.

"Right now is a good time to be a Democrat," UNR political scientist Eric Herzik said.

The Iraq war, fiscal irresponsibility and various Washington scandals have demoralized Republicans and unified Democrats, Herzik said. At the same time, the Nevada Republican Party, after a year of poor leadership and lackluster fund raising, is struggling to raise the profile of its presidential caucuses . It has attracted marginal attention from the party's presidential candidates.

Nevada historian Michael Green said Republican dominance in Nevada is a recent development, with the party picking up steam here in the late 1980s. Republicans started to gain a foothold empowered by the Reagan years, a presidential message of low taxes and small government, and demographic changes, Herzik said.

"Republicans were selling the right product at the right time for Nevada," he said. The advent of major corporate ownership of gaming and the casino industry's aversion to taxes also have aided Republicans by giving them well-funded allies, Green said.

The party's momentum, combined with the Republican takeover of Congress in 1994, led to the party's high-water mark in 2002, when Republicans captured all the state's constitutional offices.

The tide has now turned, with the Democratic caucuses serving as a much-needed party-building vehicle. "The important thing for the Democrats is it has allowed them to engage their groups early and get all parts of the party active and organized," Herzik said.

Another bright spot for Democrats: The party will have same-day registration for the Jan. 19 caucuses . Republicans, however, have instituted a Dec. 20 registration deadline for their contest.

Nevada's transient population has long made it a microcosm of America's election preferences. Since 1908, Nevada has voted for the winner of every presidential election, save one. The state voted for Gerald Ford over Jimmy Carter in 1976.

Graphic #1 - Nevada's new hue

NEVADA'S NEW HUE

State tips from red to blue
for the first time since 1992

By MICHAEL J. MISHAK AND ALEX RICHARDS, *Las Vegas Sun*

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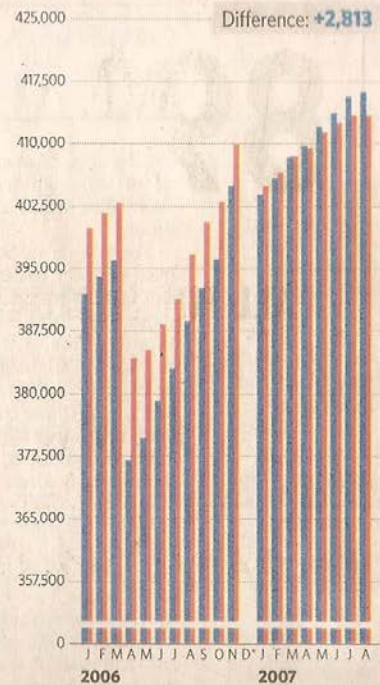
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[See Blue, Page 9]

Nevada active voters

Democrats overtook Republicans as Nevada's majority party in terms of active voters in April.



NOTE: A Clark County voter roll purge in April 2006 caused a large drop in voters, often because of outdated addresses. *Accurate totals for inactive voters unavailable for December. SOURCES: Nevada secretary of state, Clark County Election Department.

Speculators bear brunt of foreclosures

By Jeff German, Steve Kanigher and Alex Richards

Las Vegas Sun, September 23, 2007

If location, location and location are the most important factors in real estate, timing is not far behind.

When the Southern Nevada real estate market was white hot a few years ago, mortgage companies came up with creative financing plans that made it easy for individuals who lacked the normal financial wherewithal to jump in.

Subprime lending programs allowed some borrowers to obtain loans beyond their economic means--at least as measured by the usual yardsticks used to determine loan qualification--with no down payments and initial low interest rates.

Recently, however, the interest rates began to climb, and many homeowners were unable to make their mortgage payments. That led to an increase in foreclosures and a glut of homes on the market.

Here's what a typical homeowner might have faced with a \$250,000, 30-year adjustable-rate mortgage :

For the first three years, he might have a reasonable fixed rate of 6 percent, resulting in a monthly payment of \$1,499 .

After that, however, inflation and other financial factors could start pushing the rates up toward a ceiling of perhaps 11 percent.

If the rate rose 2 percentage points annually, within six years of taking out the loan, the homeowner could be making a monthly payment of \$2,300 when the cap is reached.

That's \$800 more than the original payment. And that's also why For Sale signs dot so many streets in the valley.

You don't need to tell that to Igor Doncov, who had the misfortune of investing in the booming Southern Nevada housing market just before it began to collapse three years ago.

But today the 60-year-old San Mateo, Calif., computer consultant considers himself one of the lucky ones as he watches from afar the valley's rising foreclosure rate which,

driven primarily by investors walking away from their homes, has become the nation's highest.

Doncov didn't lose his two \$450,000 homes to foreclosure. But he did lose \$100,000 in down payments after he was able to sell both properties for what he owed on them a year after buying them.

His troubles began in October 2004, after the homebuilder , despite assurances to the contrary, dramatically slashed the price of new homes in his Henderson development just months after Doncov bought his properties.

"It could have been much worse for me," Doncov said.

Unlike Doncov, who escaped with only a hefty financial loss, many other investors are now caught up in the valley's growing foreclosure epidemic.

Nevada led the nation in the rate of foreclosure filings in August, with one filing for every 165 households--triple the national average of one per 510 , according to RealtyTrac, a Southern California company that monitors foreclosures nationwide. The filings included notices of default, auction sales and bank repossessions.

A Sun computer-assisted analysis of RealtyTrac data found that new foreclosure filings in Southern Nevada have skyrocketed in the past six months, from 2,165 in March to 5,242 in August.

Combining the RealtyTrac figures with data from the Clark County assessor's office, the analysis found that 74 percent of all single-family homes in foreclosure during the past six months were owned by investors who did not live in the homes.

Roughly 85 percent of actual auctions or repossessions of homes from March 1 through Aug. 31 involved properties not occupied by their owners, the figures show.

The Sun was able to determine which homes were owner-occupied because their property tax increases are capped at a lower rate than homes owned by investors.

"The fact that investors are more likely to walk away from their property shouldn't be surprising to anybody," said Jeremy Aguero, a Las Vegas economic analyst.

Speculators have played a prominent role in the real estate market here, making up as much as 40 percent of it in recent years, Aguero said.

That view was shared by Doug Duncan, a senior vice president of the Mortgage Bankers Association in Washington.

"If you look at the rate of construction relative to population growth, there was a lot of speculative buying in Nevada," Duncan said. "Once the prices began falling and investors were losing money, they began dumping their homes."

As of Sept. 1, however, the Sun analysis found that 38 percent of all single-family homes in Southern Nevada were still owned by investors.

Many of those investors jumped into the market with the help of lax lending rules and an eye toward "flipping" properties that were rapidly rising in value to make a quick buck.

So-called subprime loans--offered to home buyers and investors with less than ideal credit who otherwise might have difficulty qualifying for mortgages--allowed people to purchase homes with no down payment and an initial low interest rate, further fueling the staggering sales boom.

An Associated Press analysis of Census Bureau data found that from 1990 to 2006 median home prices in the state rose from \$95,300 to \$315,200, a 231 percent increase that led the nation.

During the peak of the rush in 2003 and 2004, valley homebuilders couldn't build homes fast enough.

Census Bureau data obtained by the Sun show that from 1996 through 2002 there were 19,000 to 22,000 permits issued annually for single-family units in Clark County. Permit activity rose sharply in 2003, peaked at 31,741 in 2004, and came crashing back down to 21,590 last year, the lowest total since 2000.

Once the subprime loans' rates were hiked, many homeowners suddenly found their mortgages unaffordable, and foreclosures started leaving a glut of homes on the market.

"With property values going up so fast, people were biting off more than they could chew," said Devin Reiss, president of the Greater Las Vegas Association of Realtors. "They probably were getting into the wrong lending program."

Scott Bice, former commissioner of the state's Mortgage Lending Division, agreed.

"Several years of free and easy credit has fueled this whole thing," Bice said. "Everybody in the industry knew that some of these programs were not good."

But he added that, as a state regulator, he had no control over the lending programs, which were set by Wall Street investment bankers.

Even the homebuilders, who were cashing in on the real estate bonanza, knew something was wrong.

"Many builders were trying to discourage the speculators," said Irene Porter, longtime executive director of the Southern Nevada Home Builders Association.

"We could just feel it and know that we would end up with these problems. But we really couldn't do much to stop it. You can't refuse to sell a house to someone who has a loan."

Today, however, the homebuilding industry is paying for its gluttonous past.

In the last 18 months, as foreclosures have climbed, roughly 12,000 workers have been laid off, about one-fourth of the industry locally, Porter said. That in turn has slowed the ability to build infrastructure to keep up with growth and resulted in lost tax revenue .

And houses that real estate agents once could reasonably expect to move in only a few days now typically take two months or more on average to sell.

Aguero, the Las Vegas economic analyst. who is conducting a foreclosure study for the Home Builders Association, said he doesn't believe local governments could have done anything to prevent the downturn in the housing market.

"The free market isn't perfect," he said. "You have to allow the market to correct itself."

Clark County Commissioner Bruce Woodbury subscribes to that theory.

"The pendulum swings even in Las Vegas, where real estate always seems to go up in value," he said. "It's magnified here because our growth rates have been so high."

Woodbury doesn't have as much sympathy for the speculators as for the homeowners who have fallen on hard times.

"You hate to see foreclosures, but frankly I would rather see investors get foreclosed upon than homeowners," he said.

Though the percentage of owner-occupied home foreclosures is smaller, Aguero said officials should not underestimate the effect on the community.

"It's still troubling, given the volume we're talking about," he said.

Woodbury acknowledged what the experts are saying--that overbuilding has occurred in Southern Nevada in recent years.

But he said the county has worked to approve projects that conform to its master plan.

"Our policies are much better now," Commission Chairman Rory Reid added. "But we can plan better. We need to continue working on affordable housing projects."

Assembly Majority Leader Barbara Buckley, D-Las Vegas, is among those looking for answers to the valley's foreclosure predicament. She has helped put together an interim legislative subcommittee to examine the mess.

"I think a lot of people are at fault," Buckley said. "We didn't count on the glut of investing and the activities of the subprime mortgage companies putting people into loans that were inappropriate."

Buckley said she hopes the committee will look at "how we got here" and "how we make sure we don't get here again."

Buckley and other officials also are concerned about the effect the staggering foreclosure rate is having on current homeowners.

Jim Pair, vice president of the National Association of Mortgage Brokers in McLean, Va., said foreclosures generally drive down home values.

"Usually, the neighborhoods where you have foreclosures can begin to deteriorate," Pair said. "Weeds grow up and vandalism takes place. That hurts the neighborhood and pushes home values further down."

Real estate experts said Las Vegas is now experiencing the "bottom dweller" phenomenon. Investors are back in action, snapping up a large percentage of homes that have been auctioned off or repossessed through foreclosure.

"They're the ones out picking up what falls off the trees," said Dennis Smith, president of Home Builders Research Inc., which tracks housing trends in Las Vegas.

These investors generally will rent the homes in the short run to generate cash flow and then wait until the housing market heats up again before selling them. This can lead to a flattening of apartment rental rates as tenants are lost to house rentals.

"It has always been the general belief that when investors drive the market up, they'll also drive it down," said Jay Butler, an Arizona State University real estate professor. "That's why politicians are in so much trouble trying to solve this problem."

Graphic #1 - Speculators bear brunt of foreclosures



Chapter 5: Data Journalism at the Las Vegas Sun

Data journalism has finally edged its way into mainstream practice.

High-profile writers like Nate Silver--who a few short years ago would have probably been described as a sabremetrics or polling "quant"--have helped make the wonky nature of spreadsheets, empirical analysis and predictive models en vogue in the news business.

The practice, though, of applying social science methods to report news dates back to Phillip Meyer in the 1960s, directing the actions of a survey team in Detroit and then using a mainframe to answer questions about the socioeconomic situation of riot participants.

Still, there's some sense that the field has crossed a threshold and gathered a critical mass. What's been long known as computer-assisted reporting is now one hallmark of a serious news organization, something that sets it apart in its coverage and makes it worth paying for.

"If we're going to survive, it's going to be on hard-hitting, investigative, data-oriented reporting," said Jeff Kelly Lowenstein, a journalism instructor at Columbia College Chicago. "I think more folks (in charge) feel that way."

This critical mass is inviting new groups to plunge into this type of reporting and is pushing others with more experience to expand their data prowess. Their roles and relationships with their respective newsroom vary, but certain themes are common--they have found the upside to a proliferation of inexpensive tools for data analysis, used powerful online presentation to tell better stories, and evangelized CAR within their organizations.

News outlets find themselves in a world where the models for executing data journalism are as wide-ranging today as the techniques. Where regional dailies may have opted in the past for a single specialist or two who helped shepherd data-heavy stories to publication, some outlets started grouping the many subspecialties of data expertise and web development into their own dedicated teams five or six years ago.

This is partly due to the expanding umbrella of CAR over last decade, which has grown to pull in disciplines like software development and machine learning that simply

weren't dreamed of in the 1990s, a time of x86 computer processors and data files buried in reels of magnetic tape or on floppy disks.

Some of the expansion has to do with a swift decline in the cost, which for a long time was a significant barrier to entry in the field. Ryan McNeill, a data journalist at Thomson Reuters, recalled combing through old invoices totaling thousands of dollars when he worked at the Oklahoman for specialized computing power and the right software to crunch electronic information.

"It was just staggering, the cost," McNeill said. "And this was damn near a decade ago, and I remember being shocked at the price then."

The need to purchase high-dollar software licenses for specialized programs like SPSS is more largely unnecessary today. Many widely-used, open-source programs for data visualization and analysis are freely available to anyone with an internet connection.

The other major advent in CAR is that programming for the web is a far more important skill in newsrooms than it used to be. News brass have realized that outstanding online presentation, strong interactive components and rich data visualizations can drive traffic and keep the audience glued to a screen for much longer periods of time. Those screens are also more likely today to sit in the reader's pocket than on a desk, requiring even more development know-how, but beefing up these abilities can translate into more revenue. As these disciplines have become more entwined with traditional CAR, the people involved--who aren't always journalists--are bringing in new ideas about the craft and storytelling.

"The role of coders and developers being seen as a more important and sometimes integral part of the newsroom--that's been a big change," Kelly Lowenstein said.

This movement online has also put pressure on data journalists to stay on top of developments in the field. The path isn't as clear as it once was. McNeill likened the number of necessary CAR-related skills to learn today to "drinking from a fire hose."

"It's a whole different suite of things you're exposed to," said Tony Schick, a reporter at Oregon Public Broadcasting. "It used to be, you learn Excel and then you learn Access, maybe some mapping and some stats. That all seems pretty manageable from one leap to the other. But now it's like there are so many tools and so many different tools people are expected to know. And I wonder how it all fits together, and I wonder how someone's supposed to know it all."

Another free resource has helped grow the knowledge base for this kind of journalism--

the internet. As tools and skills have become more closely aligned with software development, there are many places to find information that didn't previously exist.

The NICAR-L email list is still regularly counted on as one of the best sources for learning and problem-solving, but tutorials covering the fundamentals of coding or statistics are now prevalent. So are message boards like Stack Overflow to troubleshoot esoteric software issues.

"For just about all of the common tasks you'd do in any piece of software, there is something out there online," McNeill said.

We have quickly come to a point where anyone with a computer and a little know-how can participate in modern data journalism, and the ease of adoption for basics is inviting new organizations to experiment with CAR.

Some are exclusively online groups that have moved swiftly to fill gaps, finding niches that didn't necessarily exist when coverage was more robust.

Take Honolulu Civil Beat, a recent addition to the online journalism world, forming in 2010 to focus on public policy journalism in Hawaii.

Large data-rich projects had not been their forte until reporter Nick Grube started examining cases of police misconduct--or the exceedingly limited information available about police misconduct available to the public. Years earlier, the police unions convinced the governor and the state legislature to withhold many details from the public through a legal exemption.

When Grube starting wading through the legislative summaries he was able to get his hands on, it became clear that these accusations of misconduct were anything but minor.

"Just reading through the reports is what made us realize that there was a pretty big story here," Grube said.

He spent weeks going through reports collected from Honolulu's legislative library, classifying the brief narratives inside and building a table of misconduct in an Excel spreadsheet. By coding the summaries, he could succinctly summarize them into a digestible format for the reader.

As an online-only outfit, part of the task was also finding ways to make the reporting resonate with the audience. Civil Beat may have deep pockets because its founder, Pierre Omidyar, is a billionaire who also who founded eBay in 1995, but it also relies on

a subscriber base for support and has a small staff of only six reporters and two editors. Grube had normally covered Honolulu city hall, and following this story pulled him off of that beat to demand his attention nearly full-time.

Grube and editor Patti Epler wanted to show the fruits of their labor in an ambitious way. But their expertise in presenting data online was a weak spot--they didn't have anyone on staff who had the time to learn or execute what they had in mind.

They turned to software development firm Ikeyzo, which counts companies like Sony and Bank of America among its clients.

With Ikeyzo's help, Civil Beat created a filterable database online showing the summary information of the officer's offense, the year and the number of days suspended from duty. One of the big findings in the series was that even with so many heinous infractions over a 12-year span, only 12 cops had actually been discharged from the force.

The resulting five-part series and presentation on the web was the biggest traffic driver for Civil Beat in 2013 and opened the door for more of these stories in the future.

"The fact that we did get a lot of traffic from it emboldened us to do some of these bigger projects," Grube said. "It showed us that we have the capability to do it, and it actually paid off when we did take on something much larger than an intermediate investigation."

Investigative Reporters and Editors has since been in Hawaii for a two-day workshop, and that along with the strong response to "In the Name of the Law" has infused the newsroom with a respect for data and what it can help the team accomplish.

"The reporters here have been really inspired to incorporate data into other projects and actually the sort of more quick turnaround stories that they do," Epler said.

While sizable data-related investigations are commonplace at larger organizations, some outlets haven't put reporting teams together until recently.

For years the industry has taken cues from the heavyweights in CAR, like the New York Times. Early on, they saw the benefits to having specialist reporters performing data analysis. They also had the resources and know-how to execute major investigations requiring the use of electronic records, as well as the national reach necessary to tackle big stories. In recent years, some of the more expansive outlets have looked to cultivate similar abilities.

McNeill belongs to one of these groups at Thomson Reuters, historically a deliverer of financial news and information, which started building a dedicated group of journalists in the same way that the New York Times, Los Angeles Times, and the Washington Post have.

McNeill reported on the award-winning "The Unequal State of America" series, which focused on income inequality in the U.S. and how government policy plays an outsized role in increasing disparities. He helped write the last part of the series, "The Undeserving Poor," about the lack of safety net options for "able-bodied" poor who don't qualify for government programs because they don't have dependent children or a disability and how the number of Americans has been rising for years, to its highest number since 1992.

This required extensive analysis of income records of the Current Population Survey from the U.S. Census Bureau and the U.S. Bureau of Labor Statistics, challenging because it's a regular survey conducted with a small sample of the population.

McNeill worked in SPSS to produce custom tabulations for unemployed, childless, working-age adults in poverty and their different public assistance income sources, like food stamps and cash welfare.

While he spends most of his time pairing with other reporters in the 2,700-person newsroom on series of national import like "Unequal State," it's not uncommon for individual CAR reporters on data teams to have the space to pursue their own stories.

In one instance, McNeill wrote about dozens of locomotives and railcars--some so new that the authority hadn't even technically taken delivery of them yet--left in a low-lying Kearny, N.J., railway yard during Hurricane Sandy. The area flooded during the storm, ruining the equipment. Nine of the engines alone were worth more than \$100 million.

After the authority repeatedly declined to offer up the data it was using to assess flood risk, McNeill filed an open records request to obtain the data they used and created his own model.

"It turns out what (the transit authority) had done was modeled the storm going the wrong direction, wrong speed at the wrong time, which completely missed the point by modeling a storm going out to sea where you wouldn't have as much storm surge pushing in," McNeill said.

Stories like this aren't possible without open data. Journalists working in the United States can take for granted that most public records are available in their native

electronic format. As time has gone on, more of these public data sets move online, opening avenues to reporting without the need to even make a formal request.

Momi Peralta and Flor Coehlo, members of the data journalism team at La Nacion in Buenos Aires, function in a different environment.

"We don't have open data in Argentina," Peralta said. They have to make their own, pushing optical character recognition tools and scraping methods to the extreme to turn thousands of pages of paper records into stories, digging through the scanned images with software like OmniPage to turn words, figures and the occasional printed table into semi-structured text.

"The only limitation is our mindsets," Peralta said. "If we start thinking we don't have this FOIA, or we don't have the resources or the economic situation of another country ... if we think like this, we are dead. We like to think that we are living in another country and can do the best of the best."

It has allowed them to break news on stories like massive transit subsidies in Argentina, borne from the their Great Depression between 1998 and 2002, in which companies received the equivalent of billions of U.S. dollars in grants to keep bus ticket prices low, even though the system is plagued with delays and breakdowns. It has been a staggering and barely sustainable burden for the government.

Peralta's team set up a system to download and scrape text from hundreds of the Department of Transportation's PDFs, as well as corporate data showing the size of bus fleets.

In what has mainly been a print-centric universe, many of their fellow reporters are starting to come around, no longer seeing data journalism and online presentation as something less than the regular written story.

"Now they are respecting online (reporting) because of the dimensions that data journalism has given them," Peralta said. "And they can't do it in print."

Peralta pointed to the plethora of open tools to aid in storytelling that didn't exist even a few years ago that give "power to the journalists" without requiring them to be a programmer, like Knight Lab's Timeline JS, data visualization with Tableau and even collaborative platforms like shared spreadsheets on Google Drive.

"The things that put other ways to tell stories more in the hands of everyone, this is revolutionary," Peralta said. "This is changing things."

Another boon to data journalism now is that outfits are more willing to pool resources to tell stories. In a landscape of shifting media models, distinguishing oneself doesn't necessarily come from aping traditional paths. Groups large and small are more inclined to work together toward a common reporting goal. Good examples are the nonprofit outlet ProPublica, which frequently joins with major organizations around the country to expand its reach.

Walls have also fallen for organizations like Hoy, where Kelly Lowenstein was the data and investigation editor for several years. It doesn't function in a traditional newspaper-of-records role, and is able to experiment and engage in these kinds of partnerships.

"The culture and the value of a sort of a 'scoop' that you get that no one else has, that perceived value has diminished a little bit and it's a little more let's think about how we can work together to deepen the heft and impact of what we do," he said.

After hosting interns from the University of Illinois at Urbana-Champaign and publishing Spanish-language translations of stories written through their investigative website, the two organizations decided to strike up a partnership.

They decided to request electronic arrest records from the Urbana and Champaign police departments, encompassing nearly 120,000 arrests that had been made between 2007 and 2011. Kelly Lowenstein performed a very straightforward analysis in Excel, comparing arrests with Census data on the make-up of the adult population.

"We were able to see this very persistent disparity in both communities, where black folks were very overrepresented in the number of arrests relative to the population," Kelly Lowenstein said. "And in certain quality-of-life crimes like jaywalking, noise violations, and loitering, they made up 75, 80--even 90 percent."

In all, Kelly Lowenstein said the partnership resulted in 20 or 30 published pieces and ultimately won an IRE award for the coverage.

These kinds of partnerships aren't always easy, Kelly Lowenstein noted. It was a large-scale series of accountability reports, and he was trying to manage many specialized roles not only in the reporting and analysis, but video and graphics as well.

"I think one thing that kept us going, even at some tough moments during the collaboration, was a commitment that we want to have a better relationship with whoever we with partner with at the end," he said. "And sometimes that makes you a little bit more inclined to just be flexible, compromise and listen to where the other side is coming from than if you're just focused on the journalistic product."

CAR is also finding a home at public radio and television stations, mediums that have made their own pushes online in recent years and have recognized the value of this type of journalism. While Earthfix at Oregon Public Broadcasting is an NPR affiliate station, it doesn't typically do the national stories that would allow them to partner with the NPR Visuals desk, a renowned data journalism powerhouse. Ultimately, they've opted for more of a do-it-yourself model--conducting their own analysis and making their own news applications.

"I think data finally is coming to (public radio) the way that CAR came to newspapers awhile ago," Schick said.

EarthFix only added a data reporter at the end of 2013. The team itself is spread across several public stations in Seattle, Idaho and southern Oregon, and centered on coverage of Pacific Northwest environmental issues.

Bringing CAR techniques to environmental coverage can pose its own unique challenges. The data isn't always as complete as what journalists doing these sorts of analyses are used to. For example, Schick made extensive use of a data set created by a U.S. Forest Service researcher that had taken wildfire data from various agencies--notorious for the piecemeal way in which it's collected--and standardized it into one cohesive set of records. Using the Leaflet mapping platform, Schick built a visualization that showed wildfire locations and displayed the acreage of the burn. He also used it for a story that found that twice as many acres had burned in the 2000s as the 1990s, at a suppression cost that has risen over \$1 billion each year.

Part of his job is also training other EarthFix journalists and building internal tools to help them work on their own stories. The team assembles in-person a couple of times each year, and Schick has put them all through an Excel training regimen to get them up to speed on the basics, like filtering and sorting tables.

Schick also works in Django, a Python-based web framework that became popular several years ago. He used it to create the HTML files used in the wildfire interactive--it was a powerful tool that let him spit out all the data at once--but he's also using it to standardize the data entry process and give his colleagues access the data sets he works with.

He's currently pursuing a story on fish hatcheries and how they are extremely expensive to run and pose a threat to the gene pool of wild fish. By keeping the data in a database connected to Django, he can let his reporting partners sift through different views of the hatchery data, even if it's unlikely that it will ever see the light of day as a public-facing resource.

"I'm trying to find ways to allow those other reporters to use data without knowing SQL and knowing Excel, and Django is a good way to do that," Schick said.

But more and more reporters are catching on and trying to learn the fundamentals for themselves. Attendance has been booming at gatherings devoted to the many forms of data journalism, like the annual CAR conference. CAR may grow in complexity as techniques evolve, but barriers to the basics continue to fall. It's something we can expect to take root in more stories in the years to come.

Appendix: Project Proposal and Modifications

Introduction

I came to the University of Missouri's School of Journalism with no reporting experience. I'm not the only one — many of my colleagues and I started the master's program in a "boot camp" with Sharon Harl less than 18 months ago. Within two weeks, I was on a beat and writing for the *Missourian* as an education reporter. Within four, I was nose-to-nose with the Governor as he answered questions about the newly unveiled MOHELA sale.

Almost immediately, I felt handicapped. It wasn't just because I was unaccustomed to writing the news, but because I was supposed to tackle some major university issues and I didn't know how to investigate. I didn't know how to sift through or analyze data — I could barely even use a spreadsheet to better my understanding of a budget. I didn't understand how to identify the information I needed and request it properly.

I was interested in computer-assisted reporting from the start. I had a vague notion about how it could help add some depth and context to my writing. Past that, I really didn't know how it was done; it seemed far and away from the usual daily grind of the newsroom.

Last August, two things happened that put me on my current path. First, I signed up for David Herzog's CAR class. Second, Jeff Porter took a chance and hired me on as a graduate research assistant at NICAR, which is a part of Investigative Reporters & Editors. Since then, databases have been more than a job — they've been a passion. Since August, I've learned how to use spreadsheets, database managers and geographic information systems to write the news and identify potential news stories. I've learned how to negotiate with federal agencies and other governing bodies for information, as well as pick out the most important pieces for stories through the analysis process. My data analyst position with NICAR has let me work on professional-level analysis projects for investigative reporters in Missouri, Illinois and California.

Learning these skills and having the opportunity to put them to professional use have led me to what I want to do in the news business — be a CAR researcher and reporter. I certainly won't have reached the end of my education when I leave the journalism school, because it's an area that's constantly evolving in step with available technologies. As journalists continue to find new ways to tell a story and new resources for investigative reporting, I want to be a part of it.

Working on my project at the Las Vegas Sun will aid my professional goals partly because it's a paper ripe for CAR development. In the last two years, they've gone from the metro area's much smaller daily to having a joint operating agreement with the Las Vegas Review-Journal. The Sun's focus is on in-depth reporting and long-form writing. Drex Heikes, one of the deputy managing editors, likens it to a daily investigative news magazine with a community focus. So far, they've only been using CAR at the most basic level — spreadsheets to look at city finances and salaries, for example. This on-site project will allow me to put my skill set to good use, tackling investigations they may have shied away from in the past and identifying potential CAR projects. I'll also have the opportunity to work under some incredible reporters and editors who consistently do top-notch journalism.

The Professional Skills Component

The emphasis of my professional project will be on computer-assisted reporting and how it can be applied to in-depth investigative pieces for a daily newspaper — the Las Vegas Sun in Las Vegas, Nevada.

I have two semesters of experience as a data analyst for the National Institute of Computer-Assisted Reporting's database library. This includes work processing large government databases for use by working journalists; performing professional data analysis for reporters at newspapers and television stations; and training reporters and editors from around the country to help develop their CAR skills. I've also worked on CAR reporting projects at the School of Journalism that use analytical mapping software. My training in this area comes from the CAR curriculum at the University, IRE boot camps and an independent study with Prof. Herzog on geographic information systems. I've also used these mapping skills for information graphics that have been published in the Columbia Missourian.

I will start working for the Sun on Monday, May 21, 2007. The on-site portion of my project will last for 14 weeks, ending on Friday, August 24, 2007. During this period, I planned to work 40 hours per week. Mike Kelley, the Sun's managing editor, and I have agreed on a pay rate of \$10 per hour (see attached agreement letter).

At the Sun, one of the key things I will be doing is research and reporting on investigative projects. For example, Drex Heikes wants me to look into utilities for my first project — electricity prices around southern Nevada and Clark county in particular. In a situation like this, I will be doing the on-line research to find public databases from agencies like the Department of Energy and FERC, then drafting Nevada Open Records

Act requests for documents and data from the state power commissions that have oversight in a more local sense. Additionally, I'll be assisting the Sun's reporting staff with data requests and data analysis for their own stories, as well as suggesting possible CAR resources on a case-by-case basis. Another one of my duties will be a certain amount of training, most likely with individual reporters and editors since the staff is relatively small and PC resources are limited. They will probably be limited to string functions, sorting and filtering in Excel since most of the office uses the Macintosh platform. I've been told that I'll have access to a Windows PC; in that case, I can work on SQL basics with the staff.

To meet the physical evidence requirement for my project's on-site portion, I plan to include the following material: a daily work journal, detailing reporting, research, analysis and training done; drafts of written reporting; color scans of reporting I receive a byline or contribution for that make it into the paper; burned CDs or DVDs with electronic copies of my analysis work; and weekly email updates to my committee with portions of my work journal and other news.

My project supervisor will be Drex Heikes, one of two deputy managing editors at the Sun. He'll supervise by directing me toward projects that need to be researched or reported on. This will include working with reporters on their stories.

The Analysis Component

This portion of my project will be conducted as a professional analysis. The topic: how has the practice of CAR evolved and diffused at newspapers in the western United States during the last 10 years?

The integration of computers and data analysis as a part of reporting is a relatively recent development in the world of journalism. As computers became affordable commodities for consumers in business or the home during the early 1980s, the adoption of new technology by the media was on the horizon. But it hasn't been a static addition to the newsroom, especially in the way it assists reporting. Progress made with spreadsheets like Excel to crunch government budgets has given way to today's more advanced forms of computer-assisted reporting — data analysis using commercial mapping software; programming in Perl or Python scripting languages to scrape data directly from the internet into a "flat-file" database; and advanced online platforms for hosting data so that the user can pick out what he or she finds important. An inherent dislike of math seems to be the clichéd downfall of the journalist, as if it exists as a kind of corral keeping reporters in their positions with the press. Spreadsheets and statistical

analysis software (like SPSS and SAS) through computer-assisted reporting has completely automated a lot of the process that reporters find so horrifying.

The evolution of CAR is important to examine because the practice is continually integrating with newly available technologies and reporting styles in newsrooms around the country. Some advanced forms of CAR that are currently showcased and disseminated within the journalism culture didn't even exist two or three years ago. Something important to note, however, is that it's easy to miss the big picture when talking to "CAR-centric" journalists, who can make it seem that CAR is more diffused than it actually is.

The mass communication theory that I'm using to study CAR is **diffusion of innovations**. It's been adapted to many different areas of academia, including the study of journalism, to describe the relationship between the individual, society, and new ideas. The theory examines the stages that an innovation such as CAR (in itself, a series of innovative techniques) goes through as it diffuses through a group of people. It also looks to individual adopters as they assess the innovation's merits, and the stages they go through in the decision-making process. Academic research has been done in the past linking diffusion theory and CAR, which is discussed in-depth within my literature review.

LITERATURE REVIEW & METHODS

Introduction

It's not difficult to see how the proliferation of personal computing has changed the face of journalism. Aside from some of the most obvious initial advances for the newsroom — manipulating copy with ease and storing away vast quantities of work on a disc instead of in a filing cabinet — the computer has progressed to the point of being much more.

For one, it has become an unrivaled research tool for journalists, but not just to dig up background information and to find sources through the Internet. Reporters can also put that processing power to work analyzing data. In Cecilia Friend's mid-1990s study of computer-assisted reporting in daily newspapers, she suggests that "the difference between getting background material on-line and doing computer-assisted analysis of data is an important one. While both may reveal a world of information and relationships not possible before, data analysis allows a neutral approach to raw

information — something modern journalists have forged as an ideal and that signifies an important breakthrough in journalistic technique.”¹

In the late 1980s, journalists engaged in this type of activity were considered “a new breed of technoscribes,” crunching an onslaught of data newly available from government mainframes on PCs in the newsroom — widely considered to be the future of reporting.² Today’s analysis techniques using database managers, geographic information systems and advanced internet applications that obtain and showcase publicly-available data represents both the foundation and the cutting-edge of what has become known as *computer-assisted reporting*.

This review will attempt to trace the roots of the movement toward computer-assisted reporting by newspapers as an investigative tool, examining studies of its diffusion and adoption by news organizations. It will also take a look at narrative studies that provide a basis for the further understanding of how CAR is utilized in news organizations, why it’s valuable and how they can further the process of diffusion.

Diffusion of CAR as a Journalistic Innovation

The evolution of computer-assisted reporting seems to be largely governed by diffusion of innovation. This mass communications theory, adopted from other disciplines to which it was originally applied as a model and appeared to explain, can be turned around on the newsroom to examine how new technologies and techniques have spread into journalism culture.

The premise of diffusion theory is that “an innovation, defined as an idea perceived as new, spreads via certain communication channels over time among the members of a social system.”³ In this case, CAR is the innovation and the social system is made up of working professionals in the journalism industry.

Beyond this basic interaction summary of the diffusion model’s elements — the innovation, the communication, the social system and change over time — the adoption process also exists. Rogers saw five, sequential stages leading to an eventual, continued use of an innovation: awareness, interest, evaluation, trial and adoption.⁴ The

¹ Cecilia Friend. “Daily newspaper use of computers to analyze data.” *Newspaper Research Journal* 15, no. 1 (1994): 65.

² Tim Miller. “The data-base revolution.” *Columbia Journalism Review* 27, no. 3 (1988): 35.

³ Everett M. Rogers. “A Prospective and Retrospective Look at the Diffusion Model.” *Journal of Health Communications* 9 (2004): 13.

⁴ Everett M. Rogers. *Diffusion of Innovations*. (New York: The Free Press, 1962), 81.

awareness stage applies to individuals who know about the innovation, but haven't felt the need yet to find out more about it. Interest is the next step; an individual starts making inquiries to obtain more information, but hasn't determined the innovation's "utility in his [or her] own situation."⁵ The evaluation stage is still part of the decision-making process. The potential adopter hasn't tried the innovation yet, but uses the information gathered during the interest stage to make a conscious decision about whether to try. During the trial stage, the innovation is used on "a probationary basis"⁶ to determine its usefulness. In the case of CAR, it would most likely be the reporter's first outing with a data-driven story, or using data to provide more depth. This can ultimately lead to the adoption of an innovation, entering full and continual use by the individual.⁷

Something to keep in mind with CAR in the context of adoption is that it behaves as a skill set. Reporters and researchers possess CAR skills in varying degrees. It's not as clear-cut as making the decision to purchase a Bluetooth headset for a mobile phone or begin using a new fertilizer on farmland after the interest stage. While it is true that news organizations can purchase data analyses from outside groups such as the National Institute for Computer-Assisted Reporting to provide a foundation for a news story, doing CAR work has a learning curve solved only through education. It's possible that this could keep CAR adoption from following Rogers' model, especially between the evaluation and trial stages. Rogers also points out that a group or social system's perception of an innovation's complexity — how hard it is to use and understand — will ultimately affect its rate of adoption.⁸

This leads to a whole different set of diffusion theory elements: characteristics of an innovation and how they affect adoption. The innovation's *relative advantage* describes its perceived superiority to previous ideas; its *compatibility* reflects how well "an innovation is consistent with [the] existing values" of potential adopters; its *divisibility* is the extent to which the innovation can be tested through the trial stage of adoption; *communicability* is how easily the innovation can be communicated and understood.⁹ Higher complexity will potentially decrease the rate of adoption, while higher relative advantage, compatibility and communicability will potentially increase the rate of

⁵ Ibid., 82.

⁶ Ibid., 85.

⁷ Ibid., 86.

⁸ Everett M. Rogers. *Diffusion of Innovations*. (New York: The Free Press, 1962), 130.

⁹ Ibid., 124-132.

adoption. An innovation's divisibility does not have much impact on adoption; a new practice is equally likely to be accepted or rejected even without the trial stage.¹⁰

In the newspaper business, an important part of the model is profitability. While economic advantage isn't the primary factor governing the spread of an innovation¹¹, Rogers describes profitability as part of an innovation's relative advantage.¹² This is important for CAR because the techniques don't so much supplant previous ideas as add to them. It's just another tool for reporting a news story. As mentioned in the introduction, CAR seems compatible with the core journalism values of uncovering truth and neutral reporting. And, the extent of its complexity as a detractor may be outweighed by the relative advantage it provides to a news organization and in turn, its audience.

Another benefit of diffusion is that it is not a new or untested theory. Everett Rogers' seminal work on the diffusion of innovations was published in 1962; at the time, slightly more than 500 diffusion studies were reviewed in his book, focusing on modernizations in areas including rural sociology and medicine.¹³ By the time of the book's fifth edition in 2003, there were approximately 5000 diffusion publications.¹⁴ The diffusion model, which has been around for nearly six decades, has been steadily growing to encompass new developments in a variety of fields "across a range of conditions, innovations, and cultures."¹⁵ One of its advantages as a theory of mass communication is this flexibility — the diffusion model is adaptable to innovations in many fields and disciplines.

In the past, the relationship between innovation diffusion and CAR has been examined in academic literature. At times, these articles have taken inconsistent stances on the adoption of CAR practices in the newsroom. Some of the discrepancies include where scholars see CAR in terms of adopter categories and the overall amount of adoption. These discrepancies can come from how the study is conducted; some survey reporters with different roles in the newsroom that are outside the scope of the CAR/database field. The sample size and inclusion is also different. This could lend a certain amount of ambivalence to the overall argument, although there is a clear undertone: CAR is on the rise, regardless of the debate surrounding its present state of integration.

¹⁰ Ibid., 135.

¹¹ Ibid., 59.

¹² Everett M. Rogers. *Diffusion of Innovations*. (New York: The Free Press, 1962), 136.

¹³ Ibid., 5.

¹⁴ Everett M. Rogers. "A Prospective and Retrospective Look at the Diffusion Model." *Journal of Health Communications* 9 (2004): 17.

¹⁵ Ibid., 17.

For example, Scott Maier's article on CAR diffusion in the newsroom begins its examination with a clearly pessimistic stance, finding that "despite impressive work by some technological pioneers, the news industry overall has been hesitant and, at times, resistant to new technology. From database analysis to electronic publishing, use of the computer is relegated to the technological elite."¹⁶ He contends that in many newsrooms, the "cheerleaders" and proponents of CAR are drowned out by reporters content to limit their CAR experiences to web browsing.¹⁷ In diffusion theory, advances have to be counterbalanced by acceptance in the social system (collective newsrooms) in order to promote adoption, and given the demands that an investment in CAR resources requires — in both material and training capital — the slow diffusion is only natural.¹⁸ The results of his survey, given to the CAR trainers/editors of nearly 30 news organizations, aren't very positive, either.

Maier found that most computer use in the newsroom stays mostly in the realm of Internet searches and the in-house news library. Less than 10 percent of the use can be attributed to reporters doing work with spreadsheets, database managers, analytical mapping software and statistical packages like SPSS.¹⁹ Maier's survey found that a lack of time, skills and training were considered the biggest obstacles to the diffusion of CAR, while reporters having knowledgeable peers in the newsroom and benefits of in-house training are key to the continuing diffusion and adoption process. The survey showed the divergence of computer-assisted paths in the newsroom — a large number of reporters flock to the "Internet route" of gathering information for news stories, while a comparatively small number travel the data "analysis route."²⁰

Maier draws in an important facet of diffusion theory and applies it to CAR: adopter categories. Rogers described an innovation moving steadily through time across adopters belonging to specific categories. The *innovators* adopt first, then *early adopters*, followed by the *early majority* and *late majority* individuals. Finally, the *laggards* take up the innovation, completing adoption by the social system.²¹ Maier proposes that the importance of interpersonal communication in CAR's diffusion process (peer education, in-house training) could indicate that CAR is at the tipping

¹⁶ Scott R Maier. "Digital diffusion in newsrooms: The uneven advance of computer-assisted reporting." *Newspaper Research Journal* 21, no. 2 (2000): 95.

¹⁷ *Ibid.*, 96.

¹⁸ *Ibid.*, 96.

¹⁹ Scott R Maier. "Digital diffusion in newsrooms: The uneven advance of computer-assisted reporting." *Newspaper Research Journal* 21, no. 2 (2000): 101.

²⁰ *Ibid.*, 107.

²¹ Everett M. Rogers. *Diffusion of Innovations*. (New York: The Free Press, 1962), 169-171.

point where early adopters have completely taken up the innovation and that it's moving into the realm of the early majority.²²

Contrast this study with one published one year later, taking surveys with much larger samples over a period of years to describe computer-analysis in the newsroom. Bruce Garrison purports that CAR is nearing complete adoption. He examined data from national mail surveys conducted annual between 1994 and 1998 of newspapers with a circulation over 20,000 — the population surveyed each year was approximately 500.²³

When Garrison considers CAR adoption, he's talking largely about the general use of computers. This encompasses use of the Internet as a newsgathering tool — those able to “maximize the use of World Wide Web.”²⁴ It's difficult to necessarily consider this in the same vein as the data techniques that make up the CAR canon; one could relegate these activities to Internet research, a relatively small part of what CAR is about. In his guide to CAR, Brant Houston wrote that “computer-assisted reporting does not refer to journalists sitting at a keyboard, writing stories and surfing the web. It requires downloading databases and analyzing data,”²⁵ and in the context of Garrison's survey, precise definitions of what constitutes an innovation are critical to determine whether diffusion is taking place.

Aside from computer use, newspapers report an increasingly higher demand for CAR software and people with the skills to use them. By 1998, more than 30% of newspapers surveyed reported database software as the next CAR tool they planned to acquire, an increasing trend year-to-year.²⁶ Ultimately, this desire for data analysis systems could be factored in as a sign of increasing diffusion and adoption in newsrooms across the country.

Similar studies have looked at the diffusion of CAR skills in journalism classrooms, helping to prepare greenhorn reporters for the news industry. In a 2002 survey of journalism programs at colleges and universities in the United States, approximately half teach some form of CAR, specifically through the use of spreadsheets and database managers. The proper use of these programs is typically blended into another course in

²² Scott R Maier. "Digital diffusion in newsrooms: The uneven advance of computer-assisted reporting." *Newspaper Research Journal* 21, no. 2 (2000): 106.

²³ Bruce Garrison. "Computer-assisted Reporting Near Complete Adoption." *Newspaper Research Journal* 22, no. 1 (2001): 69.

²⁴ *Ibid.*, 76.

²⁵ Brant Houston. *Computer-Assisted Reporting: A Practical Guide*, 3rd ed. (New York: Bedford/St. Martin's, 2004), 3.

²⁶ Bruce Garrison. "Computer-assisted Reporting Near Complete Adoption." *Newspaper Research Journal* 22, no. 1 (2001): 73.

the journalism curriculum, not as part of a dedicated CAR course.²⁷ This was still a huge gain when compared to statistics from ten years earlier, when only 3% of schools taught students how to work with public data with spreadsheets and database managers²⁸ — the foundations of CAR instruction.

Comparing the classroom against the newsroom, Davenport et al report that the classroom seemed to be lagging behind in developing database skills; nearly three-fourths of newspapers claimed the adoption of these tools for reporting. Earlier studies have echoed the findings that CAR instruction is lacking at journalism schools, especially when it's becoming a normal practice in the newsroom.²⁹

Also, Davenport's suggest that it would behoove schools to pay special attention to graduate students when teaching CAR, because these trained individuals could eventually work in the department as assistant professors or adjuncts, furthering the diffusion and adoption of these skills among upper-level undergraduates.³⁰ There is also the overall sense that demand for CAR skills are only going to grow as adoption continues in the industry. In the future, "making sense of quantitative data will require that journalism programs do more to train students in social science methods, including statistical analysis, than has ever been the case historically."³¹ Current deficiencies in CAR education at certain schools could certainly disrupt the plans of journalists just entering the field. Without the skills, they may be overlooked in favor of new hires with the expected training. In an earlier study by Davenport and DaFleur, they suggested that reporters without CAR skills wouldn't be able to add expected quality and depth to their stories and run the risk of being "locked out" from data-intensive investigative projects by editors.³²

Making Sense of CAR Diffusion With Narrative

²⁷ Lucinda D. Davenport, Fred Fico and Margaret H. DeFleur. "Computer-assisted Reporting in Classrooms: A Decade of Diffusion and a Comparison to Newsrooms." *Journalism & Mass Communication Educator* 57, no. 1 (2002): 12.

²⁸ *Ibid.*, 15.

²⁹ Kevin C. Lee and Charles A. Fleming. "Problems of Introducing Courses in Computer-Assisted Reporting." *Journalism & Mass Communication Educator* 50, no. 3 (1995): 25.

³⁰ *Ibid.*, 17.

³¹ Lucinda D. Davenport, Fred Fico and Margaret H. DeFleur. "Computer-assisted Reporting in Classrooms: A Decade of Diffusion and a Comparison to Newsrooms." *Journalism & Mass Communication Educator* 57, no. 1 (2002): 20.

³² Margaret H. DeFleur and Lucinda D. Davenport. "Innovation Lag: Computer-Assisted Classrooms Vs. Newsrooms." *Journalism Educator* 48, no. 2 (1993): 33.

Reporters' examinations of CAR come quite often from outside academia. Jumping into case studies and interviews to elucidate how continued adoption of these techniques is changing journalism is a good way to promote advances in the field, uncover how specific instances of newsgathering lend themselves to CAR, and demonstrate increasing diffusion and adoption.

Many of these stories lean toward the idea that CAR is rapidly gaining for reporting of all shapes and sizes — it's new, but quickly reaching a point in adoption where it's considered a newsroom norm. In a 1999 article for the *Columbia Journalism Review*, Joel Simon proposed that "computer-assisted reporting [is] where the real revolution is taking place, not only on the big analytical projects but also in nuts-and-bolts newsgathering. New tools and techniques have made it possible for journalists to dig up vital information on deadline, to quickly add depth and context. Even spreadsheet analysis and other serious number crunching — once the province of investigators and nerds — are increasingly being used on beats," and that the techniques are becoming a routine part of newsroom culture.³³

Over a decade earlier, these narrative examinations weren't as quick to claim that adoption had spread as far. Tim Miller saw that diffusion of in-house databases and overall database use was slower than a boom in "on-line searching," where newspapers were searching remote, commercial databases in the days before the firmly established protocols of the World Wide Web that caused the Internet's popularity to skyrocket. But, Miller sensed a building wave of public data that would eventually be online as more and more information became "digitized," claiming that "the time is now ripe to pursue computer journalism."³⁴ At the time, one of the huge advantages of computers in the newsroom was that it gave reporters the ability to create their own searchable databases.³⁵ Whether tracking notes for a story among journalists or building a data trail from a paper trail of information, these new tools were uncovering trends to use in investigations. Miller uses narrative to point at what CAR practices were working at the time and who was using them, examining projects done by papers including *The Atlanta Journal-Constitution* and *The Seattle Times*.³⁶ These close looks in trade publications widely read by industry professionals could arguably represent a push toward further adoption and diffusion, citing a decline in computer system prices, successful CAR outings by other newspapers, and the elevation of CAR to a skill set that was catching

³³ Joel Simon. "We're all nerds now: The digital reporting revolution is reaching warp speed. Here's why." *Columbia Journalism Review* 37, no 6 (1999): 19.

³⁴ Tim Miller. "The data-base revolution." *Columbia Journalism Review* 27, no. 3 (1988): 36.

³⁵ *Ibid.*, 37.

³⁶ *Ibid.*, 35, 37.

on. There is an underlying suggestion that other media organizations could easily jump on board.

These narrative pieces have also stressed that speed and ease of analysis can add depth to stories outside of investigative projects, using specific examples of reporting done on deadline. Neil Reisner wrote about a TV reporter in Minneapolis during the mid-90s that sifted through nearly a decade's worth of traffic fatalities in Minnesota to find out which counties they were concentrated in and the age group that was most at risk. It took several hours to compile and analyze, but he ultimately had a story that aired that night.³⁷ Reisner uses more examples of quality news stories turned over quickly — typically within a day or two — elevated by the use of CAR in the reporting.

Past academic studies of diffusion and adoption serve to promote and show expansion in the field. More importantly, though, they give a clearer view of CAR's inner workings. Talking about the tools is one thing; seeing or hearing about them in actions is another. Specific examples for reporters to follow can serve as a launch pad for their own ideas, which can make them more likely to seek more information and become a trial-type adopter.

Case studies are also valuable. Beyond analysis with databases, some of the forefront reporting work in CAR is analytical mapping. It's a tool less frequently mentioned in academic literature — the work by Garrison shows that only around 14% of newsrooms look at mapping software as a future investment for their newsroom, much less than those planning on adding spreadsheets and database managers.³⁸

Geographic information systems, a marriage between the information stored in a database and a map. From there, data can be displayed spatially as points, lines and shapes, have become an important part of CAR. One of the reasons for this importance as a CAR tool is the increasing availability of resources to perform GIS analysis, especially from sources within local, state and federal government that make data available for purchase or for free through the Internet.³⁹

David Herzog examines the process of GIS in-depth, writing about specific projects where reporters used this type of CAR to uncover news. Case studies of techniques include one of the very first GIS stories, where reporters at *The Miami Herald* compared the path of Hurricane Andrew and its recorded wind speeds against a database they

³⁷ Neil H. Reisner. "On the beat." *American Journalism Review* 17, no. 2 (1995): 44.

³⁸ Bruce Garrison. "Computer-assisted Reporting Near Complete Adoption." *Newspaper Research Journal* 22, no. 1 (2001): 73.

³⁹ David Herzog. *Mapping the News*. (Redlands, CA: ESRI Press, 2003): 6.

created of storm damage.⁴⁰ The two didn't match up, and it was ultimately revealed that the year a house was built correlated more closely with the amount of damage sustained than the areas in which winds were most intense.⁴¹

Like the narrative examples of reporters doing CAR work, Herzog's studies serve to highlight advances in the field of GIS. This isn't done by careful examination and tracking of the diffusion and adoption of this CAR tool, but by providing a roadmap of techniques for interested individuals who may in turn apply these case studies to future work in their newsrooms.

Conclusion

It's easy to apply the mass communication theory of diffusion of innovations to CAR. Computers and the Internet have become ever-important research tools for journalists, giving them the ability to access vast amounts of data, analyze it and produce better news. CAR's diffusion and adoption in the newsroom has increased steadily, and further research is necessary to make claims about the adopter category it has entered at this point and time. Claims around the turn of the century put it at the mid-point, between early and late adopters — intervening years may find at least the elementary and foundation techniques (the database and spreadsheet) having diffused all the way to the laggards.

But, academic studies alone don't describe how these CAR tools are being utilized by news organizations, nor do they fully explain to the industry why continued diffusion is important. Narrative and case studies of CAR fill the gap to a certain extent, and provide reporters with some of the information they need to decide whether to adopt CAR or progress further into their CAR adoption. In this way, literature on CAR can increase the diffusion process. These areas of mass communication have had many pieces of literature written about them over a period of decades and bears further study.

Methodology

⁴⁰ Ibid., 14.

⁴¹ David Herzog. *Mapping the News*. (Redlands, CA: ESRI Press, 2003): 17-18.

For my professional analysis, I'm trying to discover how the process of computer-assisted reporting has changed for reporters at medium-sized newspapers in the western U.S. in the last 5 years. These papers are the Las Vegas Sun (my employer during the professional skills component), the Las Vegas Review-Journal (which has a joint operating agreement with the Sun, circulation 202,850), the Tennessean (based in Nashville — circulation 235,257), the Rochester Democrat & Chronicle (circulation 214,908), The Boston Herald (circulation 205,995) and The Fresno Bee (circulation 177,934). The Tennessean, Democrat & Chronicle, Herald and Bee were selected randomly from a list of newspapers with circulations between 150,000 and 250,000. These figures are based on the latest online update (September 30, 2006) of the Audit Bureau of Circulations.

Potential CAR tools overlap in different areas of the newsroom, so it's possible that the scope of this examination could grow to include reporters and editors who specifically work with CAR as part of their job description (using database managers/spreadsheets, GIS systems and statistical software packages for analysis), news researchers and graphic artists that use GIS.

Research Question #1: How have advances in computing changed how CAR is practiced?

Research Question #2: How has the CAR "knowledge base" within the newsroom changed? Are there more innovators and adopters or fewer?

Research Question #3: How have the changes affected the published reporting?

Ideally, I'm going to report on this for my analysis in two ways. First, I'm going to conduct interviews with everyone involved in the process of writing a CAR story or story with CAR elements, including researchers, reporters and editors. During the process, I will select two stories from each newspaper. One will be from at least five years ago, and the other will be no more than 12 months old. From there, I will identify all reporters and editors involved in writing the article. Interviews will be structured around a primary set of questions to ask each individual, pertaining to both CAR stories written at the paper and one of the most recent:

-How did the initial idea for the story develop?

-What CAR tools were used? What were the difficulties?

- Which types of CAR tools and/or CAR training practices were in place in the newsroom when you worked on the story?

- How did you find the necessary data for analysis in the story?
- How long did it take?
- Was their positive or critical response to the story within the newsroom?
- Were there positive or critical responses that came from the public?
- Were the CAR elements of the story and the time spent on data analysis resisted or encouraged in the newsroom?

Second, I'm going to perform a careful comparison of both the early and more recent stories to find similarities and differences in the writing and technique. This will involve another round of interviews with authors and contributors to assess how each story was put together for publication. Assessing changes in this process and the reasons behind them will also be goal of the research.

This should lead to a successful case study or process analysis intended for Uplink, AJR or CJR that explores the full arc of recent CAR evolution at these papers, as well as the journalistic changes involved in writing these kinds of stories.

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Amended Project Methodology

The following is an amended project methodology that was approved by my committee chair before I began working on reporting out the professional analysis component of this master's project.

For my professional analysis, I'm trying to discover how the processes behind traditional computer-assisted reporting, data visualization and interactive news has evolved for practitioners at a variety of media outlets in the last decade; I am selecting the interviewees and organizations based on notable work that has been recently

recognized by professional journalism groups that emphasize this sort of reporting, including Investigative Reporters and Editors, the Online News Association and the Global Editors Network. The goal of more subjective selections is to get perspectives on practices from a variety of media types -- not necessarily the largest publications with the most resources at their disposal, the powerhouses that garner much of the attention. These smaller organizations have all been chosen for outstanding reporting, both explanatory and investigative in nature, by a jury of peers who specialize in the growing field of data journalism.

I will examine the following outlets:

- Honolulu Civil Beat, a relatively new online publication is funded by Pierre Omidyar and had John Temple, the former editor of the now-defunct Rocky Mountain News, as its founding editor. The technique behind their journalism is arguably different than nearly every other outlet in the United States, with a strong emphasis on community discussion as a part of their public affairs and watchdog reporting. Their coverage of police misconduct received an Online News Association award in 2012.
- La Nacion, an Argentine daily, has received data journalism awards and finalist nods from the Global Editors Network the last two years in a row.
- Oregon Public Broadcasting's topical news site EarthFix, which emphasizes investigations of the environment, frequently rooted in data and CAR practices:
- Thompson Reuters, which has been recognized for data-centric investigations like "Connected China" and "Unequal States of America."
- Hoy, a Spanish-language daily in Chicago, which garnered many accolades for a series in conjunction with the University of Illinois that investigated dramatic racial arrest disparities in central Illinois.

I'm also keeping two back-ups in case any of these organizations do not pan out:

- The Philadelphia City Paper's use of CAR to track one of the largest and most problematic civil asset forfeiture programs in the United States.
- The Orange County Register, which won a Philip Meyer award for reporting steeped in U.S. Census microdata. This was done primarily by Ron Campbell, who is now an independent journalist.

CAR typically permeates different areas of the newsroom, so the scope of this examination will include reporters, editors, developers and news artists who specifically work with CAR as part of their job, which can include database managers, spreadsheet software, GIS programs, statistics packages and scripting languages.

- Research Question #1: How have advances in computing changed how CAR is practiced? How have the advances changed how these techniques are shared?
- Research Question #2: How has the CAR “knowledge base” within the newsroom changed over time, especially considering the larger role of web development as a fundamental practice in data journalism?
- Research Question #3: How have the changes affected the published reporting in its various forms?

Ideally, I’m going to report on this for my analysis by interviewing the journalists who created the selected, published work. During the process, I will select one notable story, series or project from these outlets with strong, industry-recognized excellence in regard to data analysis and/or visualization method. I will interview the primary reporters and developers about the process, with questions including:

- How did the initial idea for the story develop?
- What specific tools were used for reporting and publication? What were the challenges?
- Which types of data software and/or CAR training practices were in place in the newsroom when you worked on the story or series?
- How did you find the necessary data for analysis in the story? What was the process like, especially if it involved a public records request?
- How long did the process take?
- What was the response within the newsroom?
- What was the response from the public?
- What kind of lasting impact did the reporting have?
- What kind of resources were committed to the data analysis and reporting?

This should lead to a successful case study or process analysis intended for a publication such as Uplink or the Columbia Journalism Review that explores the full arc of recent CAR evolution in the media, as well as the journalistic changes involved in writing these kinds of stories. As evidenced by my literature review, these journals have solicited article on current trends in the CAR field before; most likely, that will be a point that I reference in the solicitation and article draft I plan on submitting to these three publications. My committee will provide further guidance in this area.