Florida 2000 & Washington 2004

A Study of Two Elections

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Working Paper; October 10, 2005

Current Revision Level

Rev. 1.7 February 4, 2009.

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Introduction

TODAY America is more polarized than it has been since the Civil War. Like that turbulent period in our history we have very nearly become two separate nations under the same flag--divided along political, spiritual, and ideological lines. One consequence of this is split votes. The year 2000 national election gave George W. Bush the presidency when he won the state of Florida with one of the smallest victory margins in U.S. history. With Florida he acquired enough electoral votes to win the presidency even though Al Gore held a statistically significant national majority. The outcome was controversial not only because of its narrow margin but because of the many irregularities in Florida's electoral process. Even before Election Day had concluded there were widespread reports of people being denied access to polling places, ballot counting problems, and unusually high levels of ballot spoilage. Florida officials were widely criticized for their handling of the election. In particular, Secretary of State Katherine Harris drew fire for her office's handling of the state felon list and central voting files, and the election certification process. Many also expressed concern over her role as a chairperson of the Bush Campaign in Florida (a role she did not recuse herself from until the day before the election) she had a clear conflict of interest. This in turn led to accusations by Far-Right[1] forums that Democrats were playing partisan games and standing in the way of "the will of the people". To this day many on the Left claim that the year 2000 election was stolen while many on the Right counter that this is nothing more than pettiness and poor sportsmanship.

But nature abhors a vacuum. It was only a matter of time until a Republican candidate was on the receiving end of such an affair. In 2004 the Washington State gubernatorial election left Republican Dino Rossi with a margin that was almost as small. With over 2.88 million ballots cast the Election Day tabulation and a legally mandated machine recount left Republican Dino Rossi with a final lead of only 42 votes. As in Florida, Democrats expressed concern about the small margins which were in turn deflected by the Rossi Campaign and Washington's Republicans. But unlike Florida in 2000, Washington state law grants each candidate the right to a manual recount if the funds can be raised. Gregoire exercised this right and was able to raise the needed funds. The manual recount left her with a margin of 129 votes giving her the certified victory.

The upset was doubly significant. Not only was the initial Rossi victory undermined. The largest contributor shift in margin was King County. Washington State has for some time been significantly segregated geopolitically. By region, the large majority of the state is rural and conservative but its population and economic base are concentrated in the Puget Sound corridor. King County, which includes the greater Seattle area and the state's largest county population by a considerable margin, dominates its political landscape. It is also heavily Democrat. Washington's rural communities have always resented the fact that their state and federal elected leaders are essentially chosen by a single predominately urban region they feel is far removed from their interests. Washington's previous governor, Democrat Gary Locke, also rode a King County majority to the governor's office. Locke, who grew up there and was a King County leader prior to his governorship, was passionately disliked by Washington's rural conservatives. With over twenty years of Democrat control of the governor's office, Rossi's initial lead left them believing that they had finally taken back their state. The fact that once again, King County dominated the manual recount and gave the victory to another Democrat added insult to injury.

To no one's surprise, the decision created widespread shock and outrage. The Washington State Republican Party (hereafter WSRP) and the Rossi campaign immediately launched their own barrage of legal challenges and demanded an investigation of what they claimed was a "fishy" election. Numerous allegations of incompetence, negligence, and even outright fraud were made. A few of these proved to be true, fanning the flames even more. Around the state public demonstrations were held including a large and particularly contentious one at the capital on the day Gregoire was sworn into office. At least one death threat was made against her (Ammons, 2005). Within days the issue had spread to syndicated Far-Right media outlets and across America, and Washington became the Right's Florida 2000. Partisan politics aside, the election did have irregularities and Republicans were right to demand that it be investigated. With victory margins as small as these many factors that would otherwise be negligible will determine outcomes.

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1) Given the contentiousness of the issues addressed in this paper, in what follows I will avoid use of terms like “conservative”, “liberal”, Republican, and Democrat except in their most general sense. Highly partisan conservative and liberal groups will be referred to as “Far-Right” and “Far-Left” so as to differentiate them from moderate conservatives and liberals who do not share their extreme views or responsibility for their activities.

The similarities between the Gregoire/Rossi runoff and the year 2000 Bush/Gore contest in Florida are striking. Did either election truly represent the will of voters? How important was inefficiency or negligence to both outcomes? Was fraud involved at any level? If so, can it be shown that either election as stolen? In practical terms, this boils down to 4 questions;

- Did either election give a statistically significant measurement of the majority vote?
- Are there irregularities in ballot counts and/or election records that are non-random and statistically significant?
- Is there reliable evidence of voter disenfranchisement?
- Is there reliable evidence of specific fraudulent activities or partisan negligence?

The key to these questions, if there is one, is *statistical significance*. Elections are ultimately data entry and measuring efforts. The preferences of voters are measured, results are gathered by county and precinct, checked against voter records, and counted manually and/or by machine. It's inevitable that this process will have some level of human or machine related error that will introduce *dispersion* (i.e. random "noise") into the results. If this dispersion is large enough it can drown out the signal being measured just as static can drown out a weak radio station broadcast. Discrepancies in vote tabulation come from many sources, none of which can be completely removed from any election. Among the most frequent culprits are the following;

- "Technology" errors that result directly or indirectly from hardware or software failures and usability problems with vote tabulating and counting machines.
- Votes from military voters who cast federal write-in ballots that have not yet been accounted for.
- Illegal felon voters remaining on voter lists due to record keeping or screening errors.
- Legal voters wrongly listed as felons due to record keeping or screening errors.
- Participants in the Address Confidentiality Program.
- Inactive voters who until November had not participated in a State election for some time and have not yet been reconciled with records of more recent voters (the State does not track everyone who has ever cast a vote at any time in the State's history).
- Domestic-violence victims in hiding (of which there are a significant number in Washington).
- Data-entry errors (which contrary to the strident protests of many are a statistical fact in any data gathering enterprise).
- Registered non-absentee voters who used provisional ballots rather then electronic or absentee ballots, but were counted with absentee ballots anyway and whose records to that effect have not yet been updated.
- Voters taken off of post-election registration lists after voting.

These can be loosely classified as equipment failure, human error, and record keeping error. Any or all can in some instances lead to error rates of up to 1 or 2 percent of all ballots cast even in a clean election. In the absence of a smoking gun, it's impossible to prove that any election has been improperly won or lost if the noise from these sources is larger than the resulting victory margin. A review of each election's history and the demographic, bureaucratic and technical factors that drove them will clarify many of these questions.

The Washington 2004 Gubernatorial Race

Washington's fall 2004 gubernatorial election was among the state's more contentious races. While no election is ever completely free of partisan politics, Rossi and Gregoire both ran their campaigns with tact and professionalism while runoffs for other state offices were not. But tensions her high among supporters on both sides, reaching a fever pitch as Election Day approached and projected margins shrank. When Gregoire gained her manual recount, many Washington conservatives were angered that Democrats who had controlled the office for over two decades were unwilling to simply accept the victory and let them have their turn with the state's leadership. Even then many accused Washington's Democrats of trying to stack the election in their favor unfairly. Former Washington governor Dan Evans (R) echoed the sentiments of many when he stated that,

> "We are getting to the point where apparently the Gregoire campaign wants to pick and choose the areas where they count. They are not interested in an accurate count; they are interested in some combination of circumstances that might put their candidate ahead, that's all.... We've had two counts. Sure, it's close. (Gregoire) likes to call it a tie--but that's like someone at the end of a marathon who loses by two steps saying, 'Oh, it's a tie.' They'd get laughed out of town. There's about 50,000 steps in a marathon, and Dino's about two strides ahead. That's plenty, that's about a stride more than you need."
>
> (McGann, 2004)

But Gregoire's manual recount petition was well within state law leaving the Rossi Campaign and the WSRP powerless to block it. When the decision was reversed with a margin over three times as large as Rossi's final margin the tone and substance of the debate changed. With language all too familiar to those who haven't forgotten Florida 2000 accusations of fraud and negligence filled online forums and press releases. One WSRP email forwarded to me early last January angrily declared that "avaricious imposters" had stolen the election and the very fabric of the Constitution itself was in danger. In a late December press release WSRP Chairman Chris Vance said that under normal circumstances, Republicans and Democrats alike have a responsibility to be "good stewards to the process". The loser should be prepared to accept the result and move on, "no matter how small the margin" (Seattle PI, 12/28/2004). "But these were not normal circumstances", Vance said. Pointed to a number of potential issues with the manual recount process he stated that,

> "At [this] point, I think you have an affirmative duty to raise those questions because if we don't, no one else will. It is up to the combatants, the participants in this process, to hold the system accountable."
>
> (McGann, 2004b)

So much for "two strides" being plenty! Even so, Vance was right. There *were* irregularities with the election process, particularly in King County, and it was entirely appropriate that they be investigated. Soon after the election discrepancies between ballot tabulations and county voter records were uncovered, as were incidents of provisional ballots being lost or mishandled. Many who voted were found to be on record as convicted felons who by state law do not have voting rights. The number of ballots left in question was larger than the victory margins obtained from any of the three counts. These discoveries threw dry tinder on the fire. Soon Democrats and state officials were being accused of widespread negligence and outright fraud. By early January the WSRP claimed to have discovered 8,500 ballot/voter mismatches in 5 counties including King. These however had been based on preliminary voter lists prior to full certification of the count and the total soon shrank. Democrats responded by rightly accusing the WSRP of being too quick with serious accusations before their numbers had been verified. Claims and counter-claims of felon voters rose and fell on a daily basis for over 5 months. At one time or another, the WSRP alleged thousands of felon voters and gathered lists of such from counties that were Democratic strongholds.

For their part, Democrats countered with their own list from predominately Republican counties. Many of these felons were later found either to have been erroneously listed or granted clemency and restored voting rights. In May of 2005 the WSRP and the Rossi campaign filed suit in Chelan County Superior Court to have the election overturned. By the May 2005 trial date the total combined felon voter list had settled to 1,391 votes though not all listings had been verified and many of those listed were still in court challenging their status. At least 199 erroneous listings had been removed (Roberts, 2005e; Seattle Times, 2005; 2005b). The WSRP claimed that with provisional and absentee ballots included nearly 2000 ballots were in question, but a total of only 1,678 had been verified including the 1,391 felon votes still on record (Roberts, 2005e; Seattle Times, 2005; 2005b). In all, when combined with the best available estimates of technology errors associated with the counting process (more on this shortly) this falls well within the range typical gubernatorial elections. To date, not one single instance of intentional negligence or fraud has been documented from the Washington 2004 election.

The WSRP initially based their election challenge based on the claim that removing felon votes from certified county tallies in proportion to each candidate's proportion of the vote there would give Rossi the lead. An expert witness was hired to do the calculations and defend the claim in court testimony. But regardless of how the math works out, this method is based on questionable demographics. It is well known that voting patterns are strongly tied to regional, racial, and socio-economic factors. Rural areas tend to vote Republican, urban ones Democrat; laborers and African Americans vote Democrat, business owners and whites Republican; and so on. The WSRP vote proportioning approach assumes that a sub-sample of felons from any given county--including those with widely disparate regional differences like King County--will accurately reflect the voting demographics of the larger population. There is no evidence to support this claim and in fact, the Florida 2000 felon list reflected demographics that differed considerably from the larger state population (FDOC, 2001; USCCR, 2001; Kissell, 2002; Stuart, 2004). It also appears that the WSRP analysis was based mainly on their version of the list. Before the trial had ended the Seattle Times announced the results of a study they had done of the original felon list of 1,740 names using the WSRP proportioning method. The Times found that unless the error rate of the combined list reached 74 percent, Gregoire would retain her victory (Seattle Times, 2005; 2005b). Their investigation revealed that the actual rate is likely to be closer to 11 percent. Chris Vance made no attempt to challenge the study. "I'm not disputing the factual things that you've found, but you've got to place it in the context of the case," Vance said. "The felons are just one aspect of the case" (Seattle Times, 2005).

But unfortunately for Vance and Rossi, this was the strongest claim they had. The rest of their case boiled down to a mere 287 problem votes--a figure well below even the most optimistic estimates of the unintentional residual vote rate (Roberts, 2005e; WA Sec. of State, 2005; Ansolabehere &amp Stewart, 2005; Caltech/MIT, 2001). Not one documented instance of intentional neglect or fraud was ever presented. On the morning of June 6, 2005, Chelan County Superior Court judge John Bridges issued his decision upholding the certified Gregoire victory. Bridges cited the poor methodology the WSRP had based their data gathering and analyses on and their lack of tangible evidence. The decision was even more noteworthy in that it was issued by a Superior Court based in one of Washington's most conservative counties (Rossi and the WSRP filed suit in Chelan largely in the hope of gaining a sympathetic ear).

After the decision Rossi chose not to appeal to Washington's Supreme Court, citing the need to move forward and not burden the state or his supporters with further expense and distractions from state leadership. It should be noted that here, and throughout a contentious and costly battle he displayed graciousness and leadership. Having made his case to the best of his abilities, he put the interests of the state ahead of his own when the contest did not end in his favor. In so doing he ran his campaign in an exemplary manner despite high passions among his followers and those of his opponent. All too often in disputes like these this is not the case and it’s to the credit of both candidates that they avoided the rancorousness that others indulged in.

The Florida 2000 Presidential Race

The year 200 presidential election in Florida was strikingly similar, right down to the victory margin as a fraction of total ballots cast. The initial cycle of machine counts left Bush with a 537 vote lead out of some 5.8 million votes--a margin which by proportion was strangely close to that of the final Washington 2004 tally. Gore and the Democrat party contested the election and called for a statewide manual recount. Unlike Washington, Florida had no legal provisions for manual recounts in contested elections and were unable to raise enough political support for one. However, there were at least four predominately Democratic counties that were known to have suffered unusually high levels of ballot spoilage and for which reports of election irregularities were abnormal; Volusia, Palm Beach, Miami-Dade, and Broward. Changing tactics, they chose to concentrate their manual recount efforts here arguing that,

- A 537 vote margin out of 5.8 million ballots cast was not a statistically significant victory and could have gone either way.
- There was clear evidence of irregularities in precinct operations including low quality vote tabulation machines and issues, polling place access and usability issues, and problems with voter assistance impacting the accurate casting of ballots.
- The problem ballots in these counties--those that had not been read by vote counting machines or were otherwise discarded under questionable circumstances--were unusually numerous, and many had clear evidence of voter intent and could be counted.

Each of these claims was in fact true and neither Secretary of State Katherine Harris nor the Bush campaign questioned them. In all, over 175,000 votes out of 5.8 million went uncounted (a comparable fraction for Washington would be 82,000—nearly half the population of Spokane, WA). Within 2 days attorneys for Gore filed a formal request for manual recounts in these four counties. A Circuit Court ordered Palm Beach County not to certify its vote. Immediately, the Bush campaign launched immediate and vigorous attack against the implementation of any manual recounts statewide or by county, receiving support from Katherine Harris' office throughout the process. Soon after the election it was discovered that several counties had not even done the required machine recount in accordance with state law. Some 18 of Florida's 67 counties simply checked their original figures instead (Mintz & Slevin, 2001).

Many challenged Harris' role in the matter pointing out that she had a conflict of interest. As Secretary of State she was responsible for certifying the final result yet had also been an acting co-chair for the Bush Campaign in Florida (a position she did not recuse herself from until literally the day before the election. She made active use of the office's legal resources and funds in support of the Bush Campaign tasks, including the use of her legal team to block all recount efforts requested by Democrats, repeated legal challenges on behalf of Bush, collaborating with Republican party advisers, and even sending a lawyer to Palm Beach County to put pressure on their voting board to stop its manual recount--despite thousands of protesters within the county, 12,000 of whom had affidavits (Wikipedia, 2005b). At one point she housed Republican Party advisors working for the Bush Campaign. In the years after the election multiple lawsuits were brought against her office, the Florida Division of Elections, and several County Supervisors for their handling of these and other issues during the election (particularly the state felon list). All were settled in favor of the plaintiffs.

For their part, Bush and Harris did have some valid complaints. They argued due to the lack of consistency in standards for determining voter intent from spoiled ballots among Florida counties, a statewide manual recount could not be guaranteed to be fair--a claim that was in fact true and was later upheld by the U.S. Supreme Court. Even so, the defense rang hollow in the public eye for at least two reasons. First, nether Harris of Bush offered any proposals for a bipartisan recount or any other plan by which spoiled votes might be recovered--a goal that was at least partially of not completely achievable and for which there were historical and legal precedents (Cohen, 2000). In fact, they actively fought all attempts at manual recounts regardless of whether spoiled ballots could be recovered. At one point Harris even sent a lawyer to Palm Beach County specifically to pressure the county voting board to *stop* their recount and all efforts to recover spoiled ballots (Wikipedia, 2005b). Second, Harris' office made no attempt to investigate any reported incidents of ballot spoilage or polling place irregularities that turned up on Election Day. Numerous instances of such were revealed, particularly in Palm Beach County where ballot spoilage reached record levels and numerous investigations had revealed statistical anomalies with the canvassing of ballots there well before the election was certified. Even the 18 counties that had not done their legally mandated machine recounts were not investigated.

Third, despite the appearance of partisanship in these activities Harris rebuffed all criticism of it and refused to address concerns about her neutrality.

These factors, combined with her legal and procedural efforts on behalf of the Bush Campaign after Election Day left many questioning her neutrality and accused her of being more committed to getting Bush elected than to ensuring that all rightful votes were counted. To this day Harris has not openly admitted to any impropriety in the Florida 2000 election. In the weeks following the New York Times and her media outlets requested access to the contents of the computer hard drives in her office to verify her claims of non-partisan activities. She refused. Eventually she did allow DataTrail Electronic Discovery Services (DTEDS), a data mining firm contracted by the Orlando Sentinel, to examine them (Silva &amp Kleindienst, 2001). Their investigation did not uncover a clear smoking gun pointing to the destruction of documents, but they did find considerable evidence that Harris "wore two hats"--one as Secretary of State, and another as a co-chair of the Florida Bush campaign.

Among other things, DataTrail did find that new operating systems had been installed on 3 of her office computers since the original request. Two of these had been used during the election. One had been set up with Windows 2000 Professional (at the time state of the art). The other two had received Windows 95 and 98. This is noteworthy because Windows 95 and 98 were obsolete. Both lack the stability and security of Windows 2000 as well as many other capabilities. There was no compelling reason for the installation of older operating systems on these desktops--except for the fact that if they were replacing a Windows 2000 seat it would have been necessary to reformat the drives, effectively wiping out all trace of previous files on them. Windows 2000 Professional gives users the choice of a drive reformat during installation. In fact this would be necessary if it was replacing Windows 95 or 98 if the new installation was to implement the OS's security features (which is almost always the case in office environments). The security features in Windows 2000 are based on a hard disk file system that does not support Windows 95 or 98. The nature of these OS changes and the circumstances under which they happened are unclear. DTEDS was equivocal as to whether they found evidence of these drives being reformatted during install, and actually made statements implying that they think it did not happen. But it certainly was possible, particularly if the computers had multiple disk partitions for data storage (which could have been reformatted and populated while leaving the primary OS partition in its original state. Furthermore, even if the drives had not been reformatted this would have been a logical choice for someone who wished to do so but was not computer savvy enough to know the difference between the overwriting of files and a disk reformat during an OS installation. In any event, the whole episode was questionable at best and raises more questions than it answers. Particularly in light of the fact that on at least one other occasion she is known to have altered a document pertinent to the investigation of her oversight of state's year 2000 felon list before providing it to investigators (Lewis, 2004).

Harris pushed for certification of the vote on November 14, 2000 before the Florida Supreme Court had finished its review of hand recount proposals, only to be blocked by court order. Within one week of Election Day manual recounts began in the four target counties. Over the next two weeks the Florida Supreme Court intervened twice and ordered Harris to allow them to continue. The second time they came close to authorizing what a nationwide polls indicated that a majority of Americans wanted--a statewide recount with bipartisan oversight. By this time, a number of uncounted votes had already been recounted, all of which met county standards for reliable determination of voter intent. Harris and Bush continued their fight to exclude them, and eventually succeeded in shutting down the manual recount. On November 22 Harris certified the vote with a Bush lead of 537. Despite her strident objections, within one week the Leon County Circuit Court ordered her to include an additional 383 votes from Palm Beach and Miami-Dade counties in the final count on the grounds that they showed clear indication of the voter's intended choice. This reduced Bush's lead to 195 votes.

But the Florida court had thrown a curveball. Harris and Bush got the manual recount shutdown they sought, but the court approved a statewide manual recount of *undervotes* (ballots that recorded no selection of a candidate) but not *overvotes* (ballots that recorded selections for multiple candidates). Harris and Bush wanted no recounts of any kind, so they turned to the U.S. Supreme Court. The U.S. Court questioned the Florida Court's decision to allow for undervotes but not overvotes as both misrepresent voter intent in ways that could be determined in many cases. In the end, they affirmed that Florida's county level manual recount standards were in fact disparate enough to unconstitutional. They decided that manual recounts should not be allowed until Florida could come up with a consistent statewide standard for implementing them. In theory, this was certainly within reach, and in fact had been from the beginning. However, Harris and the Bush Campaign had succeeded in drawing out their legal challenges until the deadline for selection of Florida's electors was literally hours away, thereby making this impossible. On Dec. 12, 2000 the Court issued a deeply

partisan 5-4 ruling that all recounts be stopped--all 5 conservative judges affirming and all 4 moderate or liberal judges dissenting. This gave the final victory to George Bush at the originally certified margin of 537.

In the aftermath various media outlets produced a flurry of recount studies that examined the potential outcomes of recount scenarios based on different county standards for evaluating voter intent. Results ranged from a Bush victory by a few hundred votes to a Gore victory by similar margins (Kaplan, 2001; Toobin, 2001). Most found that Gore had lost considerably more votes to factors unrelated to voter preference and would likely have won had these been taken into account.

Palm Beach in particular suffered from irregularities. Because it was a clear outlier in its vote counts for Buchanan compared to the rest of the state, a number of statistical analyses were done to determine whether this was coincidence or evidence of unintentional or intentional voter disenfranchisement. Wand et al. (2000; 2001) analyzed the Palm Beach Buchanan vote compared with nationwide county results using a generalized linear model (GLM) (McCullagh and Nelder, 1989) based on a binomial distribution of votes nationally and corrections for over-dispersion. As mentioned above, given the large sample size involved (N >> 1000) a gaussian or binomial distribution in trial counts is to be expected so this is a good assumption. They compared results in Palm Beach with nearby Leon County as an additional control to capture local Buchanan support. They found that Palm Beach had the second highest statistically significant anomaly of Buchanan votes in the country, and that this anomaly correlated strongly with under-representation of Gore, and that a significant majority of Buchanan's 3,407 votes there were intended for Gore.

Other independent analyses examined Palm Beach, Miami-Dade, and Broward counties for vote irregularities using a variety of independent statistical methods. These include least-squares methods applied directly to the vote counts (Brady, 2000; Orzag and Orzag, 2000; 2000b; 2000c; Ruben, 2000; Jackson, 2000), binomial methods (Hansen, 2000), regressions of county level demographic data (Hansen, 2000b), chi-square methods applied to electronic copies of ballots, with covariate controls, to determine overvote/undervote probabilities vs. statistical expectation (Herron and Sekhon, 2001), multivariate beta-logit model analysis of vote counts (Hansen, 2000c; 2000d). All concluded that in Palm Beach and Miami-Dade counties alone Gore lost between 300 and several thousand legitimate votes relative to Bush with a median estimate of between 2,000 and 3,000. Furthermore, every one of these studies included controls for factors other than voter confusion, machine error, and polling place issues that could have skewed the results, including local shifts in political trends since previous presidential elections. All included analysis encompassing several methodologies that estimated whether non-random biases in counts would have favored Bush or Gore. All show that count anomalies are correlated with factors unrelated to voters themselves representing a genuine disenfranchisement in these counties, and that the impact was heavily toward Gore voters. Based on these results, a manual recount of all discarded votes in Palm Beach and Miami-Dade *alone* appears to have taken at least 2000 *legitimate* votes away from Gore relative to Bush. A manual recount with proper bipartisan oversight would have revealed these votes and given the election to Gore.

In fall of 2001 a consortium of several media outlets including the St. Petersburg Times conducted what is likely the best analysis to date of what might have happened if a manual recount had been allowed. The consortium independently contacted all 67 of Florida's counties to find out how each would have conducted a recount, in particular how undervotes and overvotes would have been handled (had the latter been allowed). With this information they hired the non-profit, non-partisan National Opinion Research Center (NORC) affiliated with the University of Chicago. NORC sent teams of investigators to Florida to examine all 175,000 discarded Florida votes to determine how each county's standards would have affected a manual recount. After several months of investigation they discovered among other things that,

- 61,190 of these were undervotes that were unreadable by counting machines. Many of them gave unambiguous indications of voter intent and could have been used in a supervised manual recount.
- At least 24,653 were clear enough to have met the most lax of Florida county standards.
- Of the remaining overvotes, 3,690 also gave unambiguous indications of voter intent, and could have been used as well.
- Of the 25 Florida precincts with the most rejected ballots, 21 were predominately black and all were over 50 percent Democratic.
- Though any vote counting standard based on undervotes only would have favored Bush, any that included overvotes also would have favored Gore.

  (NORC, 2001; Nickens, 2001)

After all the legal battling by both sides, the Florida Supreme Court had allowed for manual recounts of *undervotes only*. In the end, the NORC found that any recount under these conditions would have ended in a Bush victory of at least the final 195 vote margin, but any recount that had included the 3,690 unambiguous overvotes would have gone to Gore, and by a much larger margin. At least one other study independently reached similar conclusions using a separate examination of ballots and regression methods (Wolter et al., 2003).

Many other problems also plagued vote counts. Hundreds of overseas ballots with late postmarks, lacking witness signatures, and in many cases even double-votes were counted in heavily Republican counties despite the fact that all were in violation of Florida law. Similar ballots were effectively blocked by Bush campaign legal challenges in Democratic counties creating yet another partisan skew in the state tabulation. A study by the New York Times later showed that after the legal battles were over 80 percent of those were Bush votes (Mintz, 2001). Illegal absentee ballots were counted in Bay, Escambia, Pinellas, and several other counties (Freedburg & LaPeter, 2000). During a Bay County legal challenge to elections irregularities witnesses testified to having observed Republican voters turning in "handfuls", and in one case a suitcase-full of absentee ballots in defiance of Florida law which states that no one person may submit more than two absentee ballots other than their own or that of a family member (Grimaldi & Slevin, 2000). Statewide a total of 680 such ballots were counted despite having been verified as being illegal. The large majority of these were for Bush (Imai & King, 2002; Barstow and Van Natta, 2001; Mintz, 2001). When lawyers for Al Gore attempted to challenge these ballots the Bush campaign accused them of trying to defraud "our fighting men and women overseas", precipitating ugly exchanges by both sides. Montana governor Marc Racicot was typical of most Bush campaign representatives in saying that,

> "The vice president's lawyers have gone to war in my judgment against the men and women who serve in our Armed Forces.... The man who would be their commander in chief is fighting to take away the votes from the people that he would command."
>
> (Tapper, 2000)

Of course, even if this were true it evades the main issue--the legality of the votes in an unprecedented close race. But in a time of high patriotic sentiment, public emotions were on Bush's side and the argument proved to be an effective PR move that diverted attention away from the legality issue giving Bush a significant edge.

Dead people, voters who hadn't lived in Florida for years, people not registered to vote and more--all voted statewide while both Democrat and Republican lawyers sought to block each other's votes, sometimes on valid legal grounds, often on highly questionable ones. One elections supervisor described the whole process as "your average Panama City wet T-shirt contest" (Tapper, 2000).

Many ballots across the state were not only mishandled, they were *deliberately altered*. In Seminole and Martin counties for instance thousands of Republican ballots that would otherwise have been illegal were corrected to remove the violations. Similar corrections were not granted to Democrat ballots. Republican election supervisors admitted that the ballots had been altered, but claimed that this hadn't been done with "fraudulent intent" (Gold, 2000; Tapper, 2000; Moss, 2000; Shapiro, 2000; Bailey, 2000; Earlandson, 2000). Another 2,400 absentee ballots were duplicated in Escambia County--over 11 percent of that county's total. Complicating all of this was the fact that Florida law was vague

as to what constitutes "alteration". State law allows duplicate ballots for some purposes such as replacing legitimate ballots that have been inadvertently damaged to the point of being unreadable by counting machines (Damon & Roy, 2001). Washington State also allows for duplication of damaged ballots and many such ballots were in fact recovered in this manner during the Gregoire/Rossi machine recount. Similar irregularities occurred across the state on both sides of the election, but were far more prevalent in Republican districts than Democrat ones. Most proved to be beyond prosecution due to the difficulties in proving deliberate intent, the vagueness of Florida laws regarding ballot duplication, and the fact that in most cases there was no way to separate altered ballots from clean ones. This left rejection of all ballots in these precincts as the only viable option for removing altered ones, which would have disenfranchised an even larger number of voters. In the end cases in Seminole and Martin County were set aside on these grounds, though no one disputed that illegal activity had taken place.

Bush campaign efforts to block recounts reached a disturbing low two weeks after Election Day. On November 22, 2000 a mob of Republican demonstrators descended on the Miami-Dade County elections office and stormed the building screaming epithets and waving their fists. Sheriff's deputies managed to seal off the area where recounts were being conducted while the throng pounded on the door and a window into the counting area screaming threats. When local Democratic Party chairman Joe Geller tried to escape via the back door he was followed onto the street, surrounded and beaten for several minutes before Miami police were able to break things up and rescue him. Several other Democrat elections officials in the building were also cornered and beaten (Gigot, 2000; Filkins & Canedy, 2000). Actual footage of Geller's assault was aired on nationwide news broadcasts (Osunami & Redecker, 2000; Filkens & Canedy, 2000). Other riots followed in Broward County and Fort Lauderdale. The Miami riot had been covered by CNN giving these offices some forewarning of the coming threat. Security was tightened accordingly and no violence ensued, though a brick was thrown through the window of the Broward County elections office.

Within one week an investigation by the Wall Street Journal revealed that with the help of House Whip Tom Delay (R-TX), the Bush campaign had organized these riots and sent over 200 Congressional staff members to Florida all expenses paid to support them (Kulish & Vendehei, 2000; Gigot, 2000; Kamen, 2000). Afterwards, a party was given to thank the participants Highlights included Wayne Newton singing "danke schoen" and a live conference call from Bush and Cheney themselves who congratulated everyone for their success and took the opportunity to crack a few jokes about those who had been assaulted (Kulish & Vandehei, 2000). All of this took place before the U.S. Supreme Court ordered recounts to be stopped. The Florida Supreme Court ruling that recounts were to continue was still in effect.

Nothing comparable to any of this happened in Washington's fall 2004 gubernatorial race. While at least one death threat was made against Gregoire (Ammons, 2005), no actual violence is known to have occurred. Numerous allegations of conflict of interest were made over the months following the election, but none were ever demonstrated. In sharp contrast to Katherine Harris, Washington Secretary of State Sam Reed maintained strict neutrality throughout the election and post-election legal battles, despite being a Republican and on the receiving end of the final outcome. Under his supervision, all aspects of the election were conducted in accordance with state law, every reported irregularity was investigated in a non-partisan manner, and every reasonable effort was made to insure that no one's rightful vote was lost. Even the appearance of a conflict of interest was strictly avoided. In fact Reed even drew harsh, and utterly undeserved criticism from his own party for refusing to side with them in what he rightly considered a weak challenge to the election (Postman, 2005c).

Were the Victories Meaningful?

Both elections were decided on victory margins of a few hundredths of a percent. The first order of business is to determine whether a margin this small can even be measured accurately. This can be evaluated with a standard statistical tool called the t-test. The total pool of ballots cast can be thought of as a “pool” of data recording the choices of individual voters and each vote counting cycle an "experiment" where we reach into this pool and select a *sample* of data points from for our measurements. In this case the *sample size* is the total number of ballots counted. The choices of each voter will be independent of the others so each experiment will result in ballot counts that will have a "scatter pattern", the width of which will be determined by the dispersion (i.e. noise) in our sampling process. This in turn will be measured by the *standard deviation* of the mean values observed across successive recounts. The t-test method compares the difference between the means of any two counts (in this case the total counts for either candidate) to the standard deviation of the differences in mean that would be measured in a statistically significant

number of recounts, denoted σ_{diff}. The resulting ratio, denoted **T**, is a measure of the probability that the difference between any two samples (i.e. recounts) is the result of random chance. For two different sample of size N_1 and N_2 taken from any pool of some variable of interest, with means M_1 and M_2 and standard deviations S_1 and S_2, **T** is given by,

$$T = \frac{M_1 - M_2}{\sigma_{diff}} \qquad \text{(Eqn. 1)}$$

Where,

$$\sigma_{diff} = \sqrt{\frac{S_1^2}{N_1} + \frac{S_2^2}{N_2}} \qquad \text{(Eqn. 1A)}$$

In practice how **T** is calculated depends on the size of the sample being taken, the number of known "degrees of freedom" **DF** involved (i.e. the number of ways each data point can vary apart from the others), and whether or not there is any relationship between the effects we want to measure. For any given sample size **N** the degrees of freedom will be equal to **N** - 2. Where **N** is very large, both **N** and **DF** can be treated as infinite. Under these circumstances σ_{diff} will be equal to the “pooled” standard errors of each sample which is given by,

$$\sigma_{diff} = \sqrt{S_1^2 + S_2^2} \qquad \text{(Eqn. 2)}$$

For a statistically significant number of samples from a large pool the results of multiple experiments will follow a "bell curve" with the peak of the curve centered on the most probable result and the "tails" to either side possible values that are less likely to be measured. Mathematically, this is represented by a *gaussian* function, or *gaussian distribution* (for small sample sizes the corresponding distributions would be represented best with a *binomial* distribution). In the case of our two elections the vote tallies of third party candidates are small enough in relation to total ballot count to be neglected and the contests are essentially between two candidates. This is particularly true for Washington 2004 where the only other gubernatorial candidate, Libertarian Ruth Bennett, not only garnered less than 2.3 percent of the vote but ran her campaign almost entirely on the single issue of gay rights and likely did not capture a representative sample of all Washington voters. Thus, for both elections the vote counts we are differencing will be related to each other with the requirement that by fraction they must add up to 1.0. The appropriate test for this situation is a *proportional* T-Test in which we test the differences between two sampled proportions **P** and (1 - **P**) against the standard error of their differences in multiple trials. In general multiple measurements of **P** will follow a gaussian distribution if,

$$NP \geq 5 \qquad \text{(Eqn. 3)}$$

$$N(1 - P) \geq 5$$

For the Washington and Florida elections the size of the pool we’re sampling from with our vote counts runs well into the millions and this requirement will be met so the standard errors of the proportional vote tallies and the corresponding value of **T** will both be derived from gaussian distributions. For Washington 2004, we can define the votes counted for Gregoire and Rossi as V_G and V_R, and the corresponding proportional fractions of the total as P_G and P_R. From these the standard errors S_G, and S_R associated with a statistically significant number of recounts will be given by,

$$S_G = \sqrt{\frac{P_G(1 - P_G)}{V_G + V_R}} \qquad \text{(Eqn. 4)}$$

$$S_R = \sqrt{\frac{P_R(1 - P_R)}{V_G + V_R}}$$

and σ_{diff} will be given by,

$$\sigma_{diff} = \sqrt{S_G^{\,2} + S_R^{\,2}} \qquad \text{(Eqn. 5)}$$

From these we have,

$$T = \frac{P_R - P_G}{\sqrt{S_R^{\,2} + S_G^{\,2}}} \qquad \text{(Eqn. 6)}$$

From the manual recount we have,

Gregoire = 1,373,361; **Rossi** = 1,373,232; **Total** = 2,746,593

P_G = 0.500023; P_R = 0.499977

(WA Sec. of State, 2004c)

For which we obtain,

S_G = 0.0003

S_R = 0.0003

T = 0.108

This value of **T** will then correspond to the probability that the result measured is statistically insignificant and might just as well have been the result of a coin toss, which can be looked up in a standard "T-Table" for **DF** and **T**. Because they are based on "bell curve" distributions like the gaussian function, it's customary to report T-Table results in "one-tailed" or "two-tailed" formats corresponding to either the left/right side of the curve or the entire thing. The former giving the probability of one outcome being more likely than another and the latter giving the probability that any difference between the two at the measured level is random. For our purposes the two-tailed test is more revealing. T-Tables can be found in the back of any standard statistics and probability theory textbook. For **T** = 0.105 and **DF** = infinity, this gives,

P = 91.5 percent

In other words, there is a 91.5 percent chance that the outcome of the Gregoire-Rossi election was a coin toss. A similar calculation can be run for the final machine tally after recount. Here, Rossi led by a margin of 42 votes and,

Gregoire = 1,372,442; **Rossi** = 1,372,484; **Total** = 2,744,926

$\mathbf{P}_G$ = 0.499992; $\mathbf{P}_R$ = 0.500008

(WA Sec. of State, 2004b)

From these values we obtain,

T = 0.037

Probability of Statistical Insignificance = **97 percent**

This isn't exactly a "mandate" for either candidate!

Chelan County Superior Court Judge John Bridges agreed. On June 7, 2005 he issued his ruling and upheld the Gregoire victory. In a 52-minute statement he rejected nearly every claim made by Rossi and the WSRP citing their inability to provide "clear and convincing" evidence. He also pointed out that even if the standard of proof were lowered to a "preponderance" of evidence only, they would still have lost. That evening Rossi stated that enough was enough and he would not be appealing the verdict in Washington's Supreme Court, ending the battle.

Turning now to the year 2000 presidential race we may again define similar terms. For the Bush and Gore proportional tallies and the standard errors in Florida and nationwide we have,

$\mathbf{P}_{FG}$ = Gore Final Florida Recount

$\mathbf{P}_{FB}$ = Bush Final Florida Recount

$\mathbf{P}_{NG}$ = Gore Count Nationwide

$\mathbf{P}_{NB}$ = Bush Count Nationwide

and their corresponding T statistics,

$\mathbf{T}_{2KF}$ (Florida)

$\mathbf{T}_{2KN}$ (National)

The certified year 2000 presidential vote tallies were,

Florida Total = 5,825,043 (Bush and Gore)

National Total = 101,455,899 (Bush and Gore)

$\mathbf{P}_{FG}$ = 0.499954 (2,912,253 votes)

$\mathbf{P}_{FB}$ = 0.500046 (2,912,790 votes)

$\mathbf{S}_{FG}$ = 0.00027

$\mathbf{S}_{FB}$ = 0.00027

(Federal Elections Commission, 2001)

For which equations 2 through 4 and T-Tables give,

$\mathbf{S}_{FG} = 0.00027$

$\mathbf{S}_{FB} = 0.00027$

$\mathbf{T}_{2KF} = 0.241$

Probability of Statistical Insignificance = **85.5 percent**

But this is only part of the story. As noted, these figures are based on the *certified* Florida count and reflect the legally mandated machine recount but no disputed votes or manual recounts. Over 175,000 Florida votes were tossed because of irregularities in the handling of ballots or because they were not read by machines. It was later determined that over a third of these were countable by any or all standards county standards for determining voter intent, and nearly 25,000 were clearly countable by even the most lax of those (Nickens, 2001; NORC, 2001). For over a month the Gore campaign fought to have at least a few of these votes considered but the Bush campaign and Florida Secretary of State Katherine Harris successfully blocked the inclusion of all but 342 Gore votes. The Florida Supreme Court eventually *ordered* Harris to add these, reducing the final margin to 195 votes bringing the final values to,

$\mathbf{P}_{FG} = 0.499983$ (2,912,595 votes)

$\mathbf{P}_{FB} = 0.5000017$ (2,912,790 votes)

From which we obtain,

$\mathbf{S}_{FG} = 0.00021$

$\mathbf{S}_{FB} = 0.00021$

$\mathbf{T}_{2KF} = 0.116$

Probability of Statistical Insignificance = **92 percent**

Thus, with the additional ballots required by the Florida Supreme Court—because they gave clear evidence of voter intent—the final margin was statistically insignificant at the 92 percent level. It was only by certifying the vote *before* the legal process was complete and these ballots were included that Harris was able to reduce that to even 85.5 percent.

In 2004 Washingtonians "decided" on a governor and were thus responsible only to themselves for the outcome. In Florida 2000 far more was at stake. With the rest of the country already decided by statistically significant margins, the national election hinged on Florida's electoral votes. Whoever won there would be the next president of the United States, so it's instructive to see if the coin toss election in Florida did justice to the will of the American people as a whole.

From the national counts given above we have,

$\mathbf{P}_{NG} = 0.502680$ (50,999,897 votes)

$\mathbf{P}_{NB} = 0.497320$ (50,456,002 votes)

$\mathbf{S}_{NG} = 0.00005$

$\mathbf{S}_{NB} = 0.00005$

From which we obtain,

$\mathbf{T}_{2KN} = \mathbf{76.35}$

The T-Tables I am using (LSU, 2005) do not report high enough **T** values to quantify the probability associated with this value. Remember however, that **T** is a measure of signal to noise, so the higher its value, the *greater* the odds of a

statistically insignificant outcome. Shortly after Election Day 2000 a similar T-Test of the national vote was done by Gelobter of Rutgers University (Gelobter, 2000). Based on national vote totals as of Dec. 9, 2000 (which had a smaller spread than the final tallies reported above) he arrived at a **T** value of 46.833. Using a direct calculation of the corresponding probability rather than tables, he obtained a probability of only 1 chance in greater than 6.46×10^{295} that Gore's margin of victory was statistically insignificant. To grasp the magnitude of this figure, consider that the number of *atoms* in the visible universe to a radius of 15 to 20 billion light years has been estimated at roughly 10^{78}. Gelobter's figure is over 6 trillion, trillion, trillion, trillion, trillion times the *cube* of that number. Our value of $\mathbf{T}_{2KN}$ is 63 percent larger than that making the corresponding final probability many orders of magnitude lower still.

In other words, *Gore won the year 2000 popular vote. Period!*

Despite all rhetoric to the contrary it's clear that *both* elections were a coin toss. Neither produced a final margin that came anywhere near to exceeding the dispersion in the vote gathering and counting process leaving neither candidate with a verifiable majority. However, the election process itself must also be considered. Even if the final margin was statistically insignificant, election fraud or sabotage could still be demonstrated if there was compelling evidence for the following;

- Specific activities or policy decisions that invalidated or discarded discernable ballots, or disenfranchised voters, in numbers larger than the victory margin.
- A majority vote for these ballots that favored the losing candidate by a larger margin than the one certified.

Note that this would still be a "smoking gun" *even if the activities involved were not deliberate*. Unintentional negligence would not constitute first degree election theft, but it would certainly pass for sabotage through incompetence or neglect to a degree that would indisputably invalidate a result. To run the full course we must now examine both elections in terms of how ballots were actually handled, how they were counted or disqualified, and whether the powers that be handled the election process in ways that stacked the deck. There were several areas where both elections presented alleged or actual disenfranchisement issues. These must now be addressed.

Machine vs. Manual Vote Counts

The Far-Right has repeatedly claimed that machine counts are more reliable than hand counts, but even a cursory examination of the evidence reveals otherwise. The voting machine technologies used in most U.S. elections fall can be grouped into 4 categories;

- Lever Machines in which the voter flips switches to indicate their selections and then pulls a manual lever to record their selections when complete. Lever machines register all chosen votes at one time and therefore do not permit overvoting.
- Punch Card Machines where the voter is given a ballot with perforated rectangles ("chads") next to each candidate's name that is punched out with a metal punch. Two variations are used in U.S. elections; DataVote machines where candidate names are listed on the ballot card, and VotoMatic machines where they are not.
- Optical Scanning Machines where the voter is given a "mark-sense" form with circles next to each candidate's name and the choice is made by filling in the circle with a number 2 pencil. The ballot is then read by an optical scanner that detects the difference in reflectivity between the paper ballot and the pencil marks it carries.
- Direct Recording Electronic (DRE) Machines that are essentially electronic lever machines that uses either push buttons of touch screens in place of the lever. Like the lever machines they are based on, DRE's do not permit overvoting.

All are in use and most U.S. elections are conducted with a mix of all 4 (Caltech/MIT, 2001). Errors in vote taking and/or counting using these technologies will create "residual votes"--that is, no registered preference for any candidate. Residual votes fall into 3 categories; the undervotes and overvotes already discussed, and intentional abstentions by the voter. Because of the latter, the raw residual vote rate overestimates the actual impact of lost votes, so estimates of "machine effect" are best made by comparing *changes* in residual vote rate across different technologies, particularly

before and after technology shifts in a particular region (though these have to be adjusted for the "learning curve" that results when voters and poll workers have to learn a new system). Residual vote rates for presidential elections run from 1.5 to 4 percent of all ballots cast at the county level, with the average around 2.3 percent. The corresponding average for senatorial and gubernatorial elections is 4.1 percent with a standard deviation of 3.5 percent (MIT/Caltech, 2001; Ansolabehere & Stewart, 2005). Typically, there is more intentional abstention in local elections. Studies based on exit polls and post-election surveys indicate that the intentional abstention rate is around one-half of one-percent for U.S. presidential elections. Based on this, it's likely that their unintentional residual vote rate runs from 1 to 3 percent of all ballots cast nationwide with the average around 1.8 percent. Under similar conditions gubernatorial elections show similar patterns after higher intentional residual voting is accounted for. But they may vary in how they compared to presidential elections as the residual vote rate for each may be quite different between the two for certain vote gathering technologies (Ansolabehere & Stewart, 2005).

Several studies have compared manually counted paper vote implementations with the machine vote technologies. In traditional paper votes the voter fills out a ballot by putting a pencil mark next to the candidate of choice, after which the ballots are counted by hand. These incur errors resulting from ambiguous or confusing marks by voters (Caltech/MIT, 2001). Paper votes make a good benchmark for comparing machine to manual recounts not only because they test manual counting methods, but also because they are almost certainly less accurate than manual recounts of other voting methods. Machine generated undervotes leave behind a chad, dimple, or pencil-marked oval that is generally far less confusing than hand votes that are unreadable because of illegible writing by voters. This will also be true for the clearest of problem overvotes. Results from manual recounts can vary widely compared to machine recount methods, mainly due to human factors. But with proper guidelines and bipartisan oversight these factors are greatly reduced resulting in far more accurate counts than are realized by other methods where human judgment regarding determination of voter intent is taken out of the loop.

After correction of the residual vote rate for intentional abstentions, manual paper votes have been shown to be the most accurate in presidential races, with residual vote performance improvements of up to 1.5 percent of all votes cast in presidential elections (Caltech/MIT, 2001; Ansolabehere & Stewart, 2005). Optical scan machines are almost as good, lagging anywhere from one to six-tenths of a percent behind paper votes in presidential elections (Caltech/MIT, 2001; Brady, 2001). In gubernatorial elections they rival paper ballots for accuracy though the differences are not statistically significant (Ansolabehere & Stewart, 2005). DRE machines usually (but not always) lag behind these. Punch machines are the worst, lagging behind other technologies by up to 2 percent of all ballots cast and at their best run around one percent (Caltech/MIT, 2001; Brady, 2001; Ansolabehere & Stewart, 2005).

Machine related residual vote rates are often referred to as "technology" error in that they reflect ballot spoilage directly or indirectly attributable to vote gathering equipment. They are *not* the same as machine reliability rates, which typically run around one miscount in every 250,000 to 1 million ballots. Technology errors include spoilage resulting from implementation and voter use as well. Machine failure rates are tested under controlled conditions usually with a small sample of test machines. These performance rates may or may not be realized in actual elections where a much larger number of machines are purchased, delivered and set up under widely varying circumstances. They may prove confusing to voters and be misused if adequate voter assistance and education are not available, a problem which was widespread in the Florida 2000 election. In practice, it's very difficult to separate actual residual vote rates due to directly and indirectly to particular technologies from those due to choice or other factors. The best estimates are generated by comparing the technologies *relative to each other* during periods of technology transition using regressions containing "dummy" variables that track contributions to residual vote from other variables such as demographics, county level administration changes, and vote "rolloff" (that is, where the presence or absence of other offices on a ballot affects the residual vote rate of the target office vote being measured, which can be significant) and correct for them leaving only the "raw" technology driven impact. Technology driven residual vote rates determined in this manner are referred sometimes referred to as "fixed effect" rates and are most likely to represent the actual impact of a particular technology on spoiled ballot counts (Ansolabehere & Stewart, 2005).

There is considerable variance between differing technologies within these comparisons, much of which remains after known after controlling for other factors as much as possible. In presidential elections, paper ballots show residual vote rates nearly a full percent lower than optical scan technologies, and almost 2.6 percent better than Datavote punch card machines. The differences between these are statistically significant. In senatorial and gubernatorial elections paper and optical scan perform comparably and both run about 0.9 to one percent better than Datavote punch-card methods, the differences once again being statistically significant. In this case paper and optical scan methods will do

better or worse than each other by median estimate depending on whether the evaluation is on a county basis or total voter basis, but the differences overall are not statistically significant (Caltech/MIT, 2001; Ansolabehere & Stewart, 2005). In some areas such as New Hampshire, manual paper has shown higher tabulation discrepancies than optical scan methods at the township and precinct level in recount situations (Ansolabehere & Reeves, 2004) but it's not clear how this would relate to county and state level manual recounts of optical scan base counts, where the impetus for the recount it directed specifically at recovering spoiled ballots. Comparisons of optical scan to paper and level methods yields error rates ranging from 0.1 to around 1.4 percent of all ballots cast. In these cases, there is no clear signal differentiating the two, but the standard deviation reflected in actual historical data is around 0.4 percent of all ballots cast so the "raw" technology effect variability is at least that much. Much of this difference is due to the variability of paper ballot counts as to no one's surprise these are sensitive to variations in the guidelines and procedures by which they are conducted. As such, the noise inherent in paper methods can be driven down considerably with appropriate procedures and full bipartisan oversight. Given that paper sets the standard for reducing residual vote as a baseline that the best machine technologies match but do not significantly exceed, manual recounts using stringent bipartisan guidelines can improve even on primary paper ballot elections giving the most accurate practical vote counts.

Washington state's 39 counties uses a mix of optical scan, DRE, and punch card technologies for machine counts, the latter being dominated by machines manufactured by Webb Systems. Of these, roughly one-third use punch card methods. With the exception of Thurston and Whatcom counties, all are predominately rural. Another 5 use a mix of optical scan and DRE technologies, and the remainder use optical scan systems that are obtained from 3 or 4 manufacturers. Thus, almost half of all Washington counties make at least partial use of systems that lag behind manual paper ballot and optical scan methods and a third use punch card methods that lag considerably behind both. By population, in the fall 2004 election approximately 20 percent of all ballots cast used punch cards and nearly all of the reminder used optical scan (WA Sec. of State, 2004; 2004b; 2004c; 2005b). King County, where most of the Gregoire/Rossi recount attention was focused, uses Global Accuvote optical scan systems, which typically show machine driven residual vote rates of around 0.6 to 0.7 percent nationally as determined from presidential elections (0.3 percent undervote plus 0.3 to 0.4 percent overvote) in good agreement with middle to upper end residual vote rates for optical scan systems in general (Brady, 2000; Ansolabehere & Stewart, 2005; Wolter et al., 2003; Caltech/MIT, 2001). Actual spoiled ballot rates will generally differ because they include both technology and non-technology related factors. These will be closer to observed residual vote rates by county and technology corrected for intentional abstention. Data from exit polls and post-election surveys indicates that roughly 0.5 percent of voters will intentionally abstain from a presidential choice (Ansolabehere & Stewart, 2005). From 1988 to the present senatorial and gubernatorial residual votes attributed to *unfixed* technology (e.g. technology plus all contributing factors related even indirectly to technology implementation) are around 3 percent and 2.1 percent respectively for optical scan technologies, and 4.4 percent and 3.3 percent for punch cards. For presidential races the corresponding figures are 1.6 percent and 2.5 percent respectively (Ansolabehere & Stewart, 2005).

Federal Election Day Survey results for the fall 2004 election in Washington show residual vote totals of 21,024 and 61,306 for the presidential and senatorial races after write-ins have been accounted for (WA Sec. of State, 2005). Undervote and overvote totals for the presidential and senatorial are included, but these figures aren't available for the gubernatorial race. However residual rates for all 3 races prior to correction for write-ins are available from the Secretary of State (WA Sec. of State, 2004b; 2004e; 2004f; 2004g). These show totals of 24,415, 64,848, and 75158 for the presidential, senatorial, and gubernatorial elections respectively yielding residual vote rates of 0.85 percent, 2.25 percent, and 2.61 percent. These figures are well within the historical range for these rates over the nation as a whole. Though intentional abstentions in the senatorial and gubernatorial races are almost certainly higher than those for the presidential one by proportion, the unintended residual vote is likely to be similar for all three and if anything, worse for the first two (Ansolabehere & Stewart, 2005). This implies that the unintended gubernatorial rate corrected for write-ins can be inferred from the FES presidential and senatorial figures for undervotes and overvotes. Assuming the historical intentional abstention rate of 0.5 percent for presidential election yields an unintentional residual vote rate of around 0.23 percent for the state as a whole. Similar calculations for the state's optical scan counties yield a lower end estimate of 0.11 percent (a more complete breakdown will be given shortly). These figures agree well with the lower end of historical estimates (Ansolabehere & Stewart, 2005). Considering that last fall's local and national elections were hotly contested and likely to have had far lower than average intentional abstentions the agreement is exceptional. Furthermore, the original senatorial residual rate was 0.35 percent lower than the gubernatorial rate making these figures a conservative indicator of the gubernatorial unintended residual rate (WA Sec. of State, 2004b; 2005).

Based on these estimates, it's likely that last fall Washington's overall fixed rate unintended ballot spoilage was at least 6,600. This figure must be taken as a *low-end* estimate. Ballot spoilage not obvious to machines (e.g. readable ballots that were mismarked due to voter confusion, or double counted ballots for instance) are not included. With these factors accounted for, if Washington's Global Accuvote systems performed anywhere near the national average for such systems, another 0.2 to 0.3 percent spoilage beyond this is possible, which would bring the total to between 12,000 and 16,000 spoiled ballots. All of this assumes historical rates of intentional abstention that are unlikely to be characteristic of last year's heightened partisan tensions. If these reduced the intentional abstention rate by only 0.1 percent there would be an additional 2,800 lost votes.

Compare these figures with those the WSRP offered as "proof" of fraud for over 6 months. Early in January 2005 Chris Vance was touting that 8,500 votes were unaccounted for in voter registrations if King, Snohomish, Pierce, Mason, and Kitsap Counties. Of these, 3,539 were said to be in King County. Within 48 hours it was discovered that this figure had been based on preliminary voter/vote checks that were not to be completed for several days (McGann, 2005; Postman, 2005d). The verified count went down dramatically in following weeks following more thorough investigations. For the next 5 months claims and counter-claims were made. At times the figures being cited changed almost on a daily basis. Vance and the WSRP alleged anywhere from the low to mid-thousands of ballot discrepancies statewide with Democrats arguing that the real figures were much lower. Most of the criticism focused on King County where the manual recount made the largest contributions to the change in margin and canvassing problems received the most public scrutiny. By the election challenge trial date the total had been whittled down to 1,091 questionable votes in King County including Election Day and absentee ballots (Postman, 2005). These and the few hundred mishandled ballots that had been verified were the foundation of the WSRP's claim of election fraud. According to Chris Vance,

> "Nobody has confessed to vote fraud... But if the books don't balance and you can't figure out why, you have to assume fraud took place."
>
> (Postman, 2005)

No, you do *not*. Fraud is *a possibility, if the discrepancy in the books is larger than the background noise in the vote tallying process*, which neither Vance nor Rossi supporters ever investigated properly. A check of the manual recount by county reveals a total of 876,452 votes for King County across all candidates (WA Sec. of State, 2004c). The verified vote discrepancy of 1,091 in this count represents 0.12 percent of all ballots cast in King County. This is within 0.01 percent of our low-end unintended residual rate for Global Accuvote optical scan systems and less than *one fifth* of the corresponding national average (Brady, 2000). The total statewide gubernatorial residual vote was sixty to seventy times larger and at best, the statewide unintended portion of this was six to seven times as large. Even if Vance's original discrepancy of 3,539 had stood up, that figure amounts to 0.4 percent of all ballots cast, which is less than one standard deviation for Global Accuvote systems and less than half of the 2-sigma confidence interval on which a statistical estimate of 95 percent confidence would be based.

So, after failing to produce a single independently verified instance of fraud, Vance and the WSRP based their entire case for it based on a ballot discrepancy that was nearly an order of magnitude *smaller* than statewide technology driven ballot spoilage rates alone. And that before human error of any kind is even be considered, much less negligence or fraud. This is no different than accusing an ophthalmologist of putting a four-letter word in the bottom line of the eye-chart when we can't read a thing below the second line. It's little wonder that Judge Bridges threw the election challenge out.

It's revealing to compare estimates of Washington's technology error rates with the corresponding t-test analysis done earlier and comparable figures from across the nation. The t-test was based on the first order standard error of a gaussian distribution for two proportioned dependent variables--that is, the standard error of the proportion. The denominator of equation 1 gives the pooled standard error for both candidates under those assumptions. For Washington's machine and manual recounts, this works out to about 0.04 percent. Comparable figures are reached for Florida 2000. This is less than one third of our low-end optical scan spoilage estimate, and one sixth of the corresponding statewide rate indicating that if anything, our original t-test was conservative.

How does this compare with other elections across the nation? In August of 2001 the National Commission on Federal Election reform (NCFER) published a full review of the nation's electoral process including recommendations for improvements (NCFER, 2001). Among other things the Commission examined residual vote rates from the year 2000 presidential election for the nation's 40 most populous counties including Washington's King County. Page 55 of that report ranks these by their rates. There, we see that King County had a residual vote rate of 0.7 percent placing it among the top five nationwide. The best rate achieved was 0.3 percent. In fall of 2004 under the leadership of Ron Simms King lowered it's residual rate to 0.52 percent including write-ins. and 0.39 percent with write-ins removed. For comparison, residual vote rates by state averaged to about 1.1 percent for the year 2004 presidential election and the corresponding optical scan county rates ran around 0.7 percent (Stewart, 2005; Kimbal, 2004; Kimball & Kropf, 2005). Thus, King County has one of the best residual vote rates in the nation, consistently performing better than the national average for optical scan counties alone much less all counties.

However, this was of little value to the county's critics. In the wake of the 2004 election Washington State's media outlets were filled with passionate rhetoric about the dismal failure of the county's election system. County Executive Ron Sims and Elections Director Dean Logan became the targets of months worth of blistering criticism including calls for independent audits of the county's Elections Dept. and even the resignations of both men. When shown then current figures suggesting the county had a vote counting accuracy rate of 99.8 percent Chris Vance said that if a bank with $50 million in assets was 99.8 percent accurate, "$100,000 would be missing and someone would probably go to jail" (Ervin, 2005d). Really? For a family of four with a take-home income of $3000 per month, this amounts to $6. That's barely enough to buy a tall latte and a scone (in Seattle at least). *Banks routinely make errors of that magnitude*, which is why most people keep check registers and balance their checking accounts at the end of the month. Vance makes the error sound larger than life by using a figure nearly 8 times larger than the number of ballots that were even cast in the election.

None of this is intended to minimize the problems in last fall's election. No lost vote is acceptable and there is most certainly room for improvement at all levels. But criticisms need to be kept in perspective. While King County can, and should, make improvements to its electoral process, accusations that its fall 2004 performance was an abysmal, negligence riddled failure are not supported by national historical data. Those who are angry at the outcome of an election do the public and their elected leaders a great disservice when they allow passion rather than reliable data to fuel discussions like these.

The Sharkansky Method

At least one serious attempt was made by Rossi supporters to prove that his original victory margins were meaningful using t-test methods. In early December, prior to the hand recount Seattle area conservative blogger Stefan Sharkansky (www.soundpolitics.com) ran his own t-test analysis of the base count and machine recount (Sharkansky, 2004). His investigation was motivated by an earlier commentary by another Seattle area political commentator, David Goldstein of www.horsesass.org (Goldstein, 2004). Goldstein had given a brief overview of two papers from the Caltech/MIT Voting Project that examined tabulation error and residual votes attributable to voting technologies (Ansolabehere & Reeves, 2004; Ansolabehere & Stewart, 2005). He applied the results of these studies to Washington's 2004 gubernatorial base count and machine recounts from which he concluded that,

1) The residual vote rate is the primary statistical measure of the performance and accuracy of voting technologies, and was likely to have been around 1 to 2 percent.
2) The tabulation invalidation rate (i.e. the average discrepancy between successive ballot counts in a given election) is on average 0.56 percent for optical scan technologies.
3) A 0.5 percent tabulation invalidation rate in last fall's gubernatorial election, which had over 2.8 million ballots cast, amounts to 14,000 erroneous votes.
4) The results of the both machine counts of that election were statistical ties.

Sharkansky excoriated each of these claims which he refers to as "horse product." He begins his discussion by informing us that,

> With a hand recount looming in our historically close gubernatorial election, there has been much debate over the relative accuracy of hand counts versus machine counts, and the error rate of vote counting technologies in general… most of it uninformed. And now thanks to David, we have even more uninformed debate.

He discusses a couple of research papers, which he apparently read, but didn't understand very well; e.g. 'Using Recounts to Measure the Accuracy of Vote Tabulations: Evidence from New Hampshire Elections 1946-2002'....

I do agree with David that our current voting system is prone to inaccuracies, and that we're not going to emerge from the hand recount with confidence that we measured the will of the voters with ball-bearing precision. I hope after this whole mess we can actually work together for meaningful election reform. But the numbers he's throwing around for error rates and "erroneous ballots" are wildly off the mark, and we are not in a 'statistical tie'. Dino Rossi's TWO victories are exactly that. Victories."
>
> (Sharkansky, 2004)

From here he critiques each statement with his own examination of the residual vote and tabulation invalidation from the Gregoire/Rossi machine counts and a t-test analysis which he claims proves that Rossi's "TWO victories" (his emphasis) were anything but statistically insignificant. He begins by deriving his own estimates of the state residual vote rate, and the tabulation invalidation rate (e.g. the discrepancy between the number of total ballots cast for each vote count) using information that was current at the time. Beginning with residual votes, Sharkansky tells us that,

> “The 'Residual Rate' (blank and otherwise disqualified ballots) in Washington was far less than 1% this year. Furthermore, all indications are that the vast majority of blank ballots were really intended to be left blank. If you look at the Presidential race, you'll see that a total of 2,883,499 votes were cast and 2,859,084 votes were counted, so there were 24,415 residuals, or 0.85%. But the SoS page doesn't break out write-in votes and they're included with the other residuals. I don't have ready access to write-in numbers from all counties, but I do have those numbers for King County. The SoS page imputes 4,704 residuals for King, but the "e-Canvas" reports 1,194 write-ins, so the real residual rate in King is only 0.39%. That's more or less equal to the Libertarian vote and about half the Nader vote. That doesn't seem to be an unreasonable number of people who would simply chose not to vote for any of the presidential candidates. Some of those residuals may be unintentionally spoiled ballots. But in the King County gubernatorial recount, the canvassing board managed to convert exactly 717 initial residual ballots into non-residuals, out of 898,238 ballots tallied in the first count. That is only 0.08% of ballots that were plausibly miscast such that there is some reasonable claim that the voter filled out the ballot improperly, but well enough to leave marks from which discernable intent can be inferred."
>
> (Sharkansky, 2004)

With most residual votes relegated to deliberate choice, he moves on to actual vote counting errors. Taking his cue from Goldstein's comments, he informs us that,

> "The "Tabulation Error Rate" (the difference between the outcomes of the first count and the recount) in the governor's race was nowhere near 0.56%. It was 0.0040% when looking at the entire state, and even taking the weighted average of the (absolute values) of the counties' errors it is still only 0.0046%. [copy this table into Excel and do the math] This result is so far off the mark of the cited paper (7 standard deviations), that the paper's analysis doesn't seem to have any relevance to the systems and processes we use here in WA state....
>
> There is absolutely no basis for screaming that there were '14,000 erroneous votes!' [David's exclamation mark]. First of all, the so-called tabulation error rate does not give the number of erroneous votes, it only gives the discrepancy between two counts. The true number of erroneously counted votes would, on average, be half of the discrepancy. Second, the number is based on a presumed tabulation error rate (0.5%) that is 125 times larger than what we actually experienced. Third, much of the actual discrepancy between the two counts was explained by the discovery of hundreds of new ballots around the state, and not by discrepancies between different methods of reading a controlled sample of ballots."
>
> (Sharkansky, 2004)

He then proceeds directly to his t-test analysis,

> "If we make the reasonable approximating assumption that the percentage of votes given to Rossi in a count is a normal random variable, we can use statistics to calculate the odds that Rossi truly won more than 50%. His share in the first count was 50.004722%. His share in the second count was 50.000729%. Let the null hypothesis be that Rossi's true share was > 50%. Use the t-distribution (Excel TDIST() function). Calculate the sample mean and standard error and you get a t-statistic of about 1.36. The one-tailed t-distribution with 1 degree of freedom gives the answer that we can reject the null hypothesis at the 20% level. In other words, the probability is 80% to 20% that Rossi beat Gregoire."
>
> (Sharkansky, 2004)

The analysis he describes uses a "student's" t-test which derives a value for **T** by comparing the difference between two sample means with the standard error of the mean differences in a much larger sample (the name is historical and has nothing to do with students or education per se). This is incorrect in itself. The student's t-test assumes random draws from a pool in which the variables involved (in this case votes for each candidate) are unrelated to each other. For runoff elections this is not the case. Libertarian Ruth Bennett's counts were for all intents and purposes negligible, and the contest was essentially a runoff between Rossi and Gregoire. Thus, their vote percentages will be related to each other. As we've already seen, this requires a *proportional* t-test where the relevant dispersion is given by the standard error of the proportion (equation 4).

Even if we grant Sharkansky his method, it's difficult to tell how he obtained this result. His discussion is vague to the point of being almost indecipherable, and at several points it's even self-contradictory. He states that he used MS Excel to calculate his **T**, but Excel's TTEST() function requires data to be entered as two arrays of values and does not allow for the means of each vote count to be input directly. The Excel TDIST() function he refers to derives probabilities associated with any given value of **T** but does not derive **T** itself (this is where his 20 percent figure comes from). For a proper student's t-test he needs a reliable estimate of the standard error associated with a large number of vote counting efforts--which he does not have. Without one, he will have to have made some assumptions. There are two basic philosophies he might have used. One the one hand he could have assumed that county level differences would reliably represent the standard error of the statewide recount process. In this case he could have used the MS Excel TTEST() function. This would be incorrect because county level samples differ widely in size, canvassing protocols, and (most importantly) voting technology implementations and will not reflect the state as a whole (WA Sec. of State,

2005b). I was unable to reproduce his results this way using any of his cited sources. It's more likely that he either assumed a standard error or derived one in some indeterminate manner, and then did his calculation by hand.

How this was done is a mystery. He says that he calculated "the sample mean and standard error" but nowhere are we told what "sample" he is referring to or how his calculations were done. The only clues we have as to what might have been going through his head are his comments regarding residual votes and tabulation error. Using data from the Secretary of State's office he obtains statewide residual vote rate of 0.85 percent not including write-ins (WA Sec. of State, 2004e; 2004g). Supplementing this with county Elections Division data he obtains a corresponding rate of 0.39 percent for King County after 1,194 write-ins are removed from the county total of 4,704 total residuals (King Cty. RELS, 2004). His discussion of write-ins was limited to King County by necessity as he did not have access to write-in totals for other counties (I was unable to obtain these figures as well). But even though he doesn't say so explicitly, it's clear that he considers these figures to be representative of the statewide gubernatorial election. From which he concludes that nearly all Washington's 2004 gubernatorial residual vote was intentional abstentions. This whole line of reasoning displays a profound lack of understanding of residual votes and how they originate.

First, the presidential residual vote will have limited relevance to the Gregoire/Rossi runoff. Senatorial and gubernatorial elections are typically very similar to each other and run anywhere from one to three percent *higher* than their presidential counterparts. They also tend to have differing rates of intentional abstention and machine (or "technology") driven vote spoilage, though differences in the latter are usually much smaller (Caltech/MIT, 2001; Brady, 2001; Ansolabehere & Stewart, 2005). This can be seen in Sharkansky own sources. A comparison of the gubernatorial base count and machine recount is shown in Figure 2. Here it can be seen that for all ballots cast (Ruth Bennett included) we have a statewide residual vote of 75,158, or 2.6 percent--more than *three times* the figure he quotes (WA Sec. of State, 2004b; 2004g). The corresponding senatorial rate is 2.2 percent (WA Sec. of State, 2004f; 2004g). Furthermore, these figures are actually on the low side of national trends, even where they're restricted to the more reliable optical scanning technology (Ansolabehere & Stewart, 2005).

Sharkansky ridicules David Goldstein for claiming that there may have been 14,000 unintended residuals in the election--"There is absolutely no basis for screaming that there were '14,000 erroneous votes!'" he tells us. Yet his *own* sources reveal more than five times this amount. It is true that this does not account for write-ins and intentional abstentions. The latter are also consistently higher for senatorial and gubernatorial elections than for presidential ones. But we're talking about a total that is close to one-half the population of Spokane. It's difficult to see how this many spoiled ballots can be explained away as voter choice. Sharkansky's attempts to do so are weak at best. He points to 717 spoiled ballots that the King County Canvassing Board managed to convert during the election (0.08 percent of all King County ballots) and claims that the true unintended residual vote rate could not be any higher than this. He fails to notice that this only includes ballots that needed to be redone to make them machine-readable. When ballots have been mutilated, mismarked, or otherwise damaged enough that they cannot be input to optical scan equipment, it is standard canvassing practice to transfer them to new forms to render them countable. This has nothing to do with the much larger question of random machine and/or voter/polling place related errors. It must be remembered that a machine recount is *not* a manual count and does not involve hand examination of every cast ballot. If anything, Sharkansky's 0.08 percent is an absolute lower bound on King County's unintended residual vote.

Which brings us to the next point--tabulation errors. Goldstein's figure of 0.56 percent, he tells us, is 125 times larger than reality. Linking to the Secretary of State's web site (WA Sec. of State, 2004b), he uses the base count and machine recount table (Figure 2) to derive a tabulation error of 0.004 percent. "Copy this table into Excel and do the math," he insists.

I did--and not only are all of his numbers incorrect, *he doesn't even understand what he's calculating*.

The *tabulation invalidation* rate is the percent change in vote count between a base election count and a recount per candidate and office. The value Goldstein cites was derived from a study of contested New Hampshire elections between 1946 and 2002 (Ansolabehere & Reeves, 2004). A total sample of 415 cases was evaluated. Each case compared the percent change between the base and recount tabulations in a selected town or district for a candidate in a contested election. The 0.56 percent figure represents the average invalidation rate among these cases that can be attributed to optical scan technologies, weighted by population and corrected for "office effects" (that is, the differences between senatorial, gubernatorial, and presidential elections in demographic and residual vote trends that are specific to the office rather than technology). To derive a directly comparable case from the last fall's gubernatorial runoff we

would examine the change in tabulations between the base count and machine recount on a county level basis for Gregoire and Rossi separately (towns or precincts would be a more direct comparison, but the Secretary of State's data Sharkansky cites is by county). Using the same data Sharkansky did, the base count for Rossi in King County was 350,779 votes. The corresponding machine recount tabulation was 351,127 for a total tabulation discrepancy of 348. This gives a tabulation invalidation rate of 348/350,779, or 0.099 percent. The corresponding figure for Gregoire is 0.117 percent. A population weighted average for the county would be (0.099*350,779 + 0.117*505,243)/(350,779 + 505,243), or 0.110 percent (WA Sec. of State, 2004b). Statewide, the same dataset shows tabulation invalidations in optical scan counties that range from zero (Gregoire in San Juan County and both candidates in Skamania County) to 0.791 percent (Gregoire in Adams County). Goldstein's figure falls nicely within this observed spread. The statewide population weighted average is 0.115 percent for optical scan technologies, and 0.094 percent for the entire state. To be sure, this is noticeably lower than 0.56 percent but nowhere near Sharkansky's figure, which is smaller by a factor of over 28.

How can this be? Once again, Sharkansky is silent as to how his figures were obtained. But he does tell us that his numbers were based on the Secretary of State's machine recount data (WA Sec. of State, 2004b) which he supplements with the offhand comment that the "true number of erroneously counted votes" will be equal to "half the discrepancy." A careful examination of that data reveals that his figure is based not on the tabulation invalidation, but *the change in Rossi's victory margin* divided by the total ballot count. He then compounds the error even further by dividing this ratio by two. In other words, his "tabulation error" is 0.5*(261 - 42)/2,742,567, or 0.004 percent (Sharkansky, 2004; WA Sec. of State, 2004b). This is a serious misunderstanding. By definition, an error in tabulation is *the actual discrepancy between two counts*, not the change in a victory margin. It's defined on a per-candidate basis rather than by total ballot count so that it will be normalized to variations in the latter even where margins are large. According to Sharkansky's method, if Rossi and Gregoire had respectively suffered recount tabulation discrepancies of 50.002 percent and 49.998 percent of all ballots cast, the "true tabulation error" for the election would work out to 0.004 percent even though *1.4 million* ballots would have been lost, spoiled, or otherwise not registered in the machine recount. This, of course, is patent nonsense.

By contrast, Goldstein's discussion of residual votes and tabulation invalidation is accurate at every point indicating that he *did* in fact read the papers he cited. He also addressed a crucial point that Sharkansky carefully avoided. *Tabulation discrepancies are a poor metric for quantifying unintended ballot spoilage*. They fail to account for a wide range of errors resulting from human interactions with vote-counting equipment, bureaucratic errors, and other factors. Most reliable studies rely on the residual vote rate for evaluating technology driven ballot spoilage--in particular, discrepancies in residual vote for differing vote counting technologies (Caltech/MIT, 2001; Ansolabehere & Reeves, 2004; Ansolabehere & Stewart, 2005). Ansolabehere and Reeves discuss this fact in their New Hampshire paper. Sharkansky appears to have missed that as well.

At times Sharkansky's comments are almost schizophrenic. He begins by incorrectly referring to tabulation error as "the error rate of machine counting" (his point 2). In fact, technology is only one of many sources of tabulation error. A few paragraphs later he refers to it as "the difference between the outcomes of the first count and the recount" which appears to conflate variations in the victory margin with tabulation discrepancies (consistent with his numbers). Then, he tells us that Goldstein's cited figure of 0.56 percent is 7 standard deviations off of Washington's actual tabulation error. Goldstein's source reports a 95 percent confidence interval of 0.42 to 0.70 percent for this figure (Ansolabehere & Stewart, 2005). For a normally distributed random variable this equates to a standard deviation of 0.07 percent (one-fourth of a "2-sigma" confidence interval), which is very close to the actual state average tabulation discrepancy (see Figure 4) indicating that Sharkansky may have understood the concept tabulation invalidation after all. But then, in the very next sentence he returns to square-one and compares the 0.56 percent figure to his own margin based one. Two sentences later he correctly refers to tabulation error as "the discrepancy between two counts," only to compare it yet again to his own margin based estimate in the very next sentence.

What the man was thinking is anyone's guess. I've been over his commentary countless times and I still can't decipher what he was actually trying to claim. Despite several hours of effort I was unable to reproduce his value for **T** using any figure he quoted or referenced, including the base and machine recount results (by county or state), residual vote, or tabulation invalidation. Even so, his methods can still be evaluated from scratch using the student's t-test method to back out an assumed standard error from his **T** of 1.36. In a student's t-test (the name is historical and has nothing to do with students or schools), **T** is given directly by equations 1 and 1A where we have either a statistically significant number of recounts from which $\mathbf{S_G}$ and $\mathbf{S_R}$ can be evaluated (which we do not) or reliable

estimates of the standard errors of all known noise sources impacting the vote counting process. In this case both counts used the same machine technology and the difference in tabulation due to the addition of new, previously uncounted ballots was negligible compared to the overall sample size of roughly 2.8 million so the same raw standard error would have driven both. In this case equations 5 and 6 give,

$$T = \frac{P_R - P_G}{\sqrt{2S^2}} \qquad \text{(Eqn. 7)}$$

For a **T** of 1.36 this equates to an assumed standard error **S** of 0.00207. Interestingly, this is very close to one-half of Sharkansky's margin invalidation rate implying that he may have erroneously divided by two a *second* time. Rerunning his numbers with the correct statewide weighted tabulation invalidation of 0.094 percent yields a **T** of 0.030 and a corresponding probability of 98.1 percent that his null hypothesis is valid. In other words, when used properly *even Sharkansky's own flawed method concludes that there is less than one chance in 50 that Rossi's "victory" was statistically significant*.

Point to Goldstein. *Game* to Goldstein.

All this is moot however because tabulation invalidation is not a proper measure of ballot spoilage. The relevant metric is *the unintended residual vote*, which will be given by the total residual vote (not including write-ins) minus intentional abstentions. Sharkansky's investigation was based on the most complete information available at the time. His correction for write-ins was limited to King County out of necessity because, as he rightly pointed out, the Secretary of State's counts do not include write-ins. These were only available for King County without resorting to unreasonable and time-consuming effort (I too was unable to obtain write-in stats for more than King). From these figures he obtained overall presidential residual vote rates for the state and King County that appear to be quite close to the mark. But his argument breaks down when he attempts to extrapolate this data to intentional abstentions and the unintended residual vote for the statewide gubernatorial race, which as we saw earlier ran considerably higher than the presidential rate even with fewer write-in candidates. In the wake of the fall 2004 election, other data has become available that allow us to test the validity of these assumptions.

Early this year Federal Election Survey data gathered after Election Day became available. That data, which was graciously provided to me by the Secretary of State's office (Wa. Sec. of State, 2005), gives far more detail regarding residual votes and provisional ballots than was available when Sharkansky wrote his commentary. Figure 5 shows the results of that survey that are most relevant to this study. Here we find data for presidential and senatorial vote counts, total ballots cast, and complete breakdowns of the residual vote into undervotes and overvotes--all given by county and statewide totals. An examination of the King County residuals for the presidential race reveals a total of 3,390 undervotes and 120 overvotes for a total of 3,510 residuals. Sharkansky cited a 4,704 residuals of which 1,194 were write-ins giving the exact same total (WA Sec. of State, 2004b; King Cty. RELS, 2004). This highlights a significant point--the Federal Election Survey residual tallies *already take write-ins into account* giving us a reliable snapshot of the raw residual vote. No FES data was available for the gubernatorial race, but senatorial data was. We saw earlier that like most similar elections on record nationwide, last fall's senatorial runoff was much closer to the gubernatorial runoff than the presidential one. In fact, the senatorial residual rate is 0.4 percent lower than the gubernatorial rate so that if anything, predictions based on it are likely to be conservative. Comparisons of Sharkansky's statements to this data are revealing.

The final FES presidential residual vote for Washington was 21,024, or 0.73 percent of all ballots cast (WA Sec. of State, 2005). Of these, 16,452 were undervotes and 4,572 were overvotes. The senatorial residual rate was 61,306 (2.1 percent) with 59,927 undervotes and 1,379 overvotes (WA Sec. of State, 2005)--again, *not including write-ins*. Sharkansky made much if his 0.85 percent presidential figure and implied that after write-ins were removed the actual rate might be less than half of that if King County could be taken as an example. In fact, write-ins accounted for barely 0.11 percent of all cast ballots--a mere 13 percent of the total presidential residual count. Examination of the county level figures reveals why (WA Sec. of State, 2005; 2005b). King County (which uses Global Accuvote optical scan systems) had a total residual rate of 0.52 percent making it the best performing county in the state by a noticeable margin. Only 4 other Washington counties use similar systems. All did worse. The rest of the state's optical scan systems are nearly ten years older. Coming in behind King for second and third among optical scan counties were San

Juan (also a Global Accuvote county) which boasted a residual rate of 0.44 percent, and Spokane (an ES&S OPSCAN 650 county) which ended up at 0.49 percent. Pierce--Washington's largest ballot contributor behind King--came in at over 1.0 percent. The next largest contributor, Snohomish, came in at 0.52 percent. Snohomish used a mix of OPTECH optical scan and AVC Edge Direct Recording Equipment (DRE) systems. The latter do not allow for overvoting so this figure likely underestimates the Snohomish optical scan related residual rates. Overall, Washington's optical scan counties show a total residual vote rate of 0.61 percent. Not surprisingly, the state's punch-card counties did much worse. All but two had residual rates of more than 1.0 percent with most coming in at 1.2 to 1.5 percent. Franklin County suffered a whopping 2.2 percent residual rate, the state's worst. Overall, Washington's punch-card counties had a residual rate of 1.2 percent (WA Sec. of State, 2005; 2005b).

To obtain the true unintended residual vote rate these figures will have to be corrected for intentional abstentions. Given that all balloting is secret, this can be difficult to estimate. Historically, the best estimates have come from exit poll studies of presidential elections which typically have the lowest rates. Overall, these show a national average of around 0.5 percent (Ansolabehere & Stewart, 2005). Senatorial and gubernatorial elections usually run higher. Both optical scan and punch-card technologies show their best residual vote performance in presidential elections where intentional abstention data is best (Ansolabehere & Stewart, 2005). Therefore, last fall's presidential race can be used to set a lower bound on Washington's unintended residual vote. The last two presidential elections were among the most heated in the nation's history, as was the Gregoire/Rossi runoff in Washington--possibly the only election in the state's history where a *death threat* was made against the victor (Ammons, 2005). Therefore, it's likely that intentional abstentions were lower than normal making this a conservative estimate. With a 0.5 percent intentional abstention rate we get a statewide unintended residual vote of 0.11 percent of all ballots cast for Washington's optical scan counties, 0.70 for punch-card counties, and a statewide average of 0.23 percent. This yields a bare minimum of more than 6,600 spoiled ballots. The true rates are likely to be higher, especially for the senatorial and gubernatorial races.

With these results we can revisit Sharkansky's four original arguing points (Sharkansky, 2004), and his claim that the true margin in Washington's 2004 gubernatorial election went to Rossi.

1) The "Residual Rate" (blank and otherwise disqualified ballots) in Washington was far less than 1 percent [in 2004].

In fact, it was far greater. The original gubernatorial residual, defines here as all "blank and otherwise disqualified ballots" was 2.6 percent. With write-ins accounted for, it the final total will be somewhat less, but very likely to be greater than the senatorial residual of 2.1 percent. This puts it over the high end Goldstein's stated range of 1 to 2 percent. Only the presidential rate was less, and that by only 0.27 percent with write-ins removed.

2) The "Tabulation Error Rate" (the difference between the outcomes of the first count and the recount) in the governor's race was nowhere near 0.56 percent. It was 0.0040 percent when looking at the entire state.

As a matter of fact, they *were* close. The statewide optical scan tabulation error observed in the machine recount was 0.115 percent with the county level figures running anywhere from zero to as high as 0.79 percent (WA Sec. of State, 2004b). Ansolabehere and Reeves' figure falls nicely within this spread. Apart from the high end outliers (Adams and Walla Walla Counties) several counties had rates that approached the lower end of their 95 percent confidence interval. Thus, in terms of overall averages Washington's optical scan performance is noticeably better than that observed by Ansolabehere and Reeves in New Hampshire but not by anything like as much as Sharkansky claims, especially since the data these figures came from were based on a single runoff for one office. A larger dataset would likely reveal more noise and bring the two figures even closer. Sharkansky's figure is based on a confusion of tabulation invalidation with variance in margin.

3) There is absolutely no basis for screaming that there were "14,000 erroneous votes!"

There is considerable basis for doing so. Based on historical trends in both overall presidential abstention and overall residual vote rates for these systems, 6,600 to 7,000 erroneous votes for the presidential election is a conservative estimate. The total residual rate for the senatorial election was more than 54,000 votes higher, and the gubernatorial rate was higher still. With an overall statewide residual rate of 0.73 percent, if the most hotly contested presidential and gubernatorial elections in the state's history lowered the intentional abstention rate by a mere 0.27 percent in either election we would in fact have 14,000 erroneous votes. Once again, Sharkansky misses all of this

because he confuses variations in victory margin with tabulation error, and fails to understand how either relate to overall unintended ballot spoilage.

4) The election is not a tie, statistical or otherwise.

In fact, it is one of the clearest and most indisputable examples of a tie in our nation's history. At a bare minimum the outcomes of the base count and *both* recounts are statistically insignificant at the 92 percent level based on a proportional t-test--the correct analysis for this situation. Sharkansky concludes otherwise because his analysis was botched at virtually every point. After setting it up incorrectly, he failed to properly enumerate unintended ballot spoilage and even made basic math errors in his final result. With the math errors corrected, even his *own* flawed methods show a 98 percent likelihood of statistical insignificance for both of Rossi's "victory" margins.

Some may protest that unintended residual vote is itself difficult to evaluate. It is true that estimates of technology related error are based largely on estimates of intentional abstention that are themselves far from certain. But even so, the problems with Sharkansky's analysis remain. Apart from intentional abstention, variations in residual vote attributable to different technologies are still much larger than his estimated ballot spoilage rate. These cannot be attributed to intentional abstention. Neither can the observed spread in county level residual rates which is larger than the statewide average. From Figure 5 it can be seen that statewide, *overvotes alone* account for 0.16 percent of all ballots cast in the presidential race which he based his residual vote figures on (WA Sec. of State, 2005). Even if there wasn't a single unintentionally undervoted ballot in the gubernatorial race this leads to a **T** of 0.018 and a corresponding probability of 98.8 percent probability of statistical insignificance using his method. For the senatorial race, the statewide overvote rate was 0.048 percent which leads to a **T** of 0.059 and a statistical insignificance probability of 96 percent. Sharkansky himself admits to an unintended residual vote rate of at least 0.08 percent for King County, which led the state in residual vote performance. If he wants to avoid the conclusions these figures demand he must demonstrate that a majority of the state's overvotes were intentional--a tall order to say the least. The overwhelming majority of those who don't want to vote for any candidate in a particular race do exactly that--*they don't vote for one*.

Before leaving this subject one last point is worth noting. Based on the student's t-test method Sharkansky appears to have used, his **T** of 1.36 implies an assumed standard error of 0.00207 percent. The corresponding 2-sigma confidence interval would then be 0.00828 percent--very close to the actual change in Rossi's victory margin between the base count and the machine recount. So if we assume Sharkansky's margin based definition of tabulation error, the two machine counts would have straddled the full range of the 95 percent confidence interval for his assumed error rate. It follows that there is only one chance in twenty that another recount would fall outside of the range bordered by these counts. Not only did the manual recount do so, *it did by over three fourths of the original discrepancy!*

To someone more versed in statistics than Sharkansky appears to be, this would have thrown up a huge red flag followed by an investigation of the assumptions behind the analysis. Yet based on what was at his blog after the manual recount, all of this went right past him. It is true that manual recounts are a different "technology" and cannot be directly compared to the previous machine counts. But from the standpoint of residual votes (the correct metric for evaluating ballot spoilage) manual counts and optical scan methods show similar performance in senatorial and gubernatorial elections, and better performance in presidential ones (Ansolabehere & Stewart, 2005) so we would not expect a significant difference with a manual count. Nor can Sharkansky play the "fraud" card to explain the difference. As of this writing, the Rossi campaign and the WSRP have had over *nine months* to come up with evidence for it. To date they have failed to produce even one properly documented instance anywhere in the state—only allegations. Ansolabehere and Reeves' New Hampshire study did show higher tabulation error for manual methods compared to optical scan, but that study evaluated each technology on a sole basis and did not examine the performance of manual paper recounts against machine base counts. Their work also places Sharkansky on the horns of a dilemma. He cannot cite them for his case without conceding their observed tabulation invalidation rate of 0.56 percent, which would be even harder on his claim of a statistically significant Rossi "victory" than the figures given above.

The bottom line is that Goldstein's four claims were verifiably correct at every point. Both machine counts and the manual count were in fact statistical ties, and for that matter so was the manual recount. Sharkansky's critique fails because he misunderstands virtually every aspect of unintended ballot spoilage and its impact on tabulations, residual vote, and outcomes. These subjects are clearly explained in the sources he linked from his commentary as well as numerous other easily available studies--none of which he appears to have either read or understood.

Disenfranchised Washington Voters

Rossi and the WSRP claimed that significant numbers of voters were disenfranchised in the 2004 election. Rossi in particular claimed to have suffered most from this. Overseas military voters alleged to have been particularly hard hit by being denied a reasonable opportunity to vote or by having their votes unfairly thrown out on technicalities (Seattle PI, Dec. 23, 2004). Estimates varied widely as to how many voters were impacted with totals varying on almost a daily basis for months after Election Day. By the May trial date a total of 3,109 ballots (not including the total felon voter count) were alleged by Republicans and Democrats to have been mishandled in one way or another statewide, including the 1,091 voter/ballot discrepancy in King County (Postman, 2005b). None of these were ever shown to have favored either candidate.

The Rossi campaign also claimed to have heard from some 260 absentee voters, military and non-military who they claimed never received ballots and would likely have voted Republican if they had. It was also claimed that there were "affidavits" for these cases but to the best of my knowledge, none were ever made public. Only a handful of anecdotal stories were offered as proof. None were independently verified. Military officials stated that they had no evidence of any problems with overseas military absentee ballots (Shane, 2005). After repeated searches of the Internet, I was only able to find 4 reports of voters who claim they did not receive absentee ballots by voting deadlines. All but one were anecdotal.

The one case that wasn't, and that the Rossi campaign offered as proof of disenfranchisement, was Tyler Farmer, a Snohomish country Marine who was stationed in Iraq at the time and claims he did not receive a ballot in time to vote. After a few public appearances he quickly became the focus of the Rossi campaign's case for voter disenfranchisement. Snohomish county records show that Farmer's ballot had been mailed on October 8, 2004 giving him over 5 weeks to sign and return it before the November 17, 2004 deadline. County rules permitted him to return his vote by fax or email provided that he could snail mail his signature with a postmark prior to the deadline. Farmer did none of these things. Military units overseas have voter information officers to assist soldiers with obtaining, preparing, and returning absentee ballots prior to election deadlines. Farmer appears not to have contacted his. Had he done so he could easily have been informed of the options available to him weeks in advance. As an added irony, Snohomish County already favored Rossi in both recounts by factors of 50 to 150 times the final margins indicating that Farmer's vote didn't help Rossi much anyway. Beyond the early cases of vote mishandling and illegal felon voters--neither of which were ever demonstrated to have been harmful to Rossi anyway--this single questionable case is as close as Rossi and the WSRP ever got to demonstrating voter disenfranchisement in Washington 2004.

Once again, let's compare this to Florida 2000.

Right from the beginning it was obvious that this election was riddled with problems for voters. We've already seen the problems voters encountered with confusing ballots in Palm Beach. Confusing ballots led thousands of Palm Beach and Broward County voters to misrepresent their wishes, as numerous independent studies of ballot usability have confirmed (Resnick, 2000; Fox, 2000; Keating, 2002; Wand et al., 2001).

Overwhelmingly, the voting irregularities occurred in predominantly Democratic and/or minority counties. Of the 25 Florida precincts with the most rejected ballots, 21 were predominately black and virtually all were over 50 percent Democratic (NORC, 2001). Independent investigations concluded that the mishandling of votes and counting irregularities did in fact fall disproportionately on minority communities at statistically significant levels (Lantigua, 2001; Lichtman, 2001; 2001b; Stuart, 2004). Problems with methods, equipment, and on-site voter help resources were

widespread. Many counties used paper and pencil ballots. Of these, some sent their ballots to the county seat for tabulation while others tallied votes at the polling place. In the former case, voters were not given a chance to revote if they had cast an overvote or undervote. It was later determined that in these counties African-Americans were four times as likely as whites to have their ballots thrown out (Keating & Mintz, 2001). In the tally-on-site counties, voters were told immediately if they had made a mistake and were given a second chance to vote. In these cases, African-Americans were just under two times as likely as whites to have ballots tossed out (Keating & Mintz, 2001). Over 90 percent of African-American Floridians voted Democrat in 2000 while some two-thirds of whites voted Republican. Poor ballot design and a lack of on-site voter support cost Gore at least 2,000 votes *in Palm Beach County alone* (Hansen, 2000).

Far-Right forums didn't dispute any of this--they dismissed it as little more than proof of voter stupidity--if Democrats and liberals can't even follow directions or figure out a ballot, they deserve to have their votes disenfranchised (Noe, 2000; Mostert, 2002). Apart from the callousness of such a stance, even if it were true it's beside the point. "Stupid" or not, those voters were *American citizens* who have as much Constitutional right to their vote as any of their condescending critics. Federal and Florida State law requires that disenfranchisement of this sort be investigated. Furthermore, at the risk of being blunt it's a dangerous argument for the Far-Right to be using. If national surveys of voter literacy are any indication, accusations of stupidity on the part of Democrats and "liberals" could easily come back to haunt them (PIPA, 2004). In any event, no comparable issues turned up in the Washington 2004 election.

The Florida 2000 Felon List

Washington Republicans complained bitterly about felon voters during the Gregoire/Rossi runoff. In fact, Washington's felon voter issues pale in comparison to Florida's in 2000. A grand total of 1,677 Washington felons were identified as having voted in fall 2004 (Seattle Times, 2005, 2005b). Another 199 voters were wrongly identified as felons, yet were still allowed to vote on Election Day. By contrast, an estimated 5,400 to 7,800 felons are likely to have voted in Florida 2000--over twice the Washington 2004 rate as factored by total ballot count--and this figure may go as high as 12,000. Another 12,000 and possibly as many as 55,000 Florida citizens were wrongly listed as felons jeopardizing their voting rights. Of these, it is likely that 5,500 to 6,300 were actually denied their voting rights on Election Day, at least two thirds of which were Gore voters (USCCR, 2001; Kissell, 2002; Stuart, 2004; Smith, 2003). Post-election investigations revealed that this was the direct result of policies implemented by Katherine Harris and the Florida Division of Elections after having been informed that doing so would significantly increase false positives (Kissell, 2002; Lantigua, 2001; Pierre, 2001; Nickens, 2001; Karlan, 2001; Palast, 2000; 2001; 2002; Lewis, 2004). Prior to the election the Florida Division of Elections (FDE) and Harris' office hired a consulting firm called Database Technologies, Inc. (DBT, now ChoicePoint Corporation) to sweep Florida's list of legal voters of all felons. DBT compared Florida's January 2000 Central Voter File (CVF), the state's record of all registered Florida voters, with criminal records provided by the Florida Department of Law Enforcement (FDLE), driver's license records, their own independent data and other information to generate a year 2000 felon list for the state. Comparisons were made by name, date of birth, social security number (SSN) and other records. The resulting list contained a total of 42,332 suspected felons for year 2000, of which 56 percent were duplicates of records in the 1999 list for a total of 57,656 suspected felons (Stuart, 2004). The year 2000 list was provided to FDE prior to Election Day 2000 and was used to screen voters for felon status at polling places statewide. This is legal of course. Florida law forbids convicted felons to vote. Most states do also though they vary in the stringency of their clemency policies and how whether they continue to deny voting rights to those who are on parole or whose sentences have been served. Florida is one of a small handful of states that permanently denies voting rights for life to anyone who has ever been convicted of a felony.

Needless to say, it's legal provided that those listed are in fact currently felons and this has been properly verified. But as it turned out, Florida's list was riddled with errors. Many of the "felons" listed had long since been pardoned within Florida state law and had their voting rights restored. Others had finished their sentences or been granted clemency in other states prior to moving to Florida but had not been credited with either. Thousands were ordinary law-abiding American citizens with no criminal records of any kind. Original background checks had been done using exact name and birthdate matches, but the FDE and Katherine Harris' office ordered DBT to relax their standards for the fall 2000 list, which at their request was generated using only rough name matches (80 percent by character string) and approximate birth date matches (Wikipedia, 2005; Stuart, 2004). Under these standards a "Richard Williams" would have been denied his right to vote if there was a Richard Williams, or even a "Richard Williamton", with a felony record

and common birth month anywhere in the state (Kissell, 2002; Lewis, 2004; Merzer, 2001; Wikipedia, 2005; Palast, 2001; USCCR, 2001). In 2001 FDE Assistant General Counsel Emmett Mitchell IV (who oversaw the felon list effort for the state) also admitted that the FDLE records provided to DBT were known to have errors, including the names of people who had records but only misdemeanor charges (Lantigua, 2001). These later turned out to be significant (USCCR, 2001; Stuart, 2004). When asked to relax their match standards, DBT protested and informed the FDE and Harris' office that this would significantly increase false positives. They were told to do so anyway and informed that responsibility for catching the resulting errors would be left to county election supervisors (Wikipedia, 2005; USCCR, 2001). Standards for such checks varied widely by county and resources were for doing the needed checks were often limited, creating significant logistic problems. Some sent letters to prospective felons requiring them to jump through a number of administrative hoops to prove their innocence--a difficult task for people who had no criminal records in the first place and could not provide proof of having been pardoned of any crime without pursuing a long legal pathway to obtain the state and federal records necessary.

The list's problems were well known and many counties chose not to use it at all rather than risk widespread voter disenfranchisement (USCCR, 2001; Stuart, 2004). Elections supervisors often worked with the Florida Executive Board of Clemency to verify names on the list as they were provided by county workers. But many reported that the office was understaffed and without the needed technical equipment for proper checks (USCCR, 2001). County elections workers needed voter education and election personnel training, particularly training in DBT's screening and name-match methods to properly check felon lists. FDE and DBT provided several such training sessions in fall of 1999, but by spring of 2000 FDE officials had decided that this training was not “really necessary" (USCCR, 2001). Essentially, the FDE and Harris chose knowingly to increase the rate of false positive felon attribution and leave screening of the resulting errors to county level workers swamped with other election related tasks--many of whom were then left with inadequate training.

A "felon" purge like this can victimize virtually anyone. For instance, at the age of 48 I've never had a felony conviction of any kind. Despite having grown up during the 70's I've never even smoked pot, and as of this writing it's been 11 years since I've managed to get a traffic ticket making me certifiably the world's most boring person. But a check of the Internet reveals numerous Scott Churches nationwide. If I were a Florida resident, and any one of these "Scott Churches" had moved to Florida with any felony conviction on his record--even a 30 year old sentence for stealing hubcaps off the neighbor's Ford--I would likely have been denied the right to vote.

This did in fact happen to thousands of law-abiding Florida citizens.

One individual was denied voting rights because of a 1959 arrest for sleeping on a public bench (USCCR, 2001; Borger & Palast, 2001). Another was turned away because of a 1971 concealed weapons charge he incurred while carrying a pistol under his clothing in a public restaurant (Hiaasen et al., 2001)--which incidentally, many of my conservative friends and family members also do and stridently defend as being within their Constitutional and God-given rights. At the time he was fined, but never told by the arresting officer or any magistrate that he'd violated a felony rather than a misdemeanor statute. Other choice examples of listed "felons" include;

- A 33-year-old Tampa businessman and Gore supporter who was listed because his name happened to match an alias used by a credit card thief (Smith, 2003). Even *the thief's* name had been listed incorrectly.
- A St. Petersburg woman who had been the victim of a 1986 purse thief but was listed because the thief who had stolen her purse used her credit card before she could cancel it. She had dutifully notified FDLE at the time and been told, falsely, that the mix-up had been taken care of (Smith, 2003).
- A Tallahassee pastor with no criminal record whatsoever who was listed because of a near name and birth month match with another individual (Lewis, 2004). This man was allowed to vote finally, but only after making special arrangements at his polling place and enduring the resulting public humiliation in front of family and friends.

Not surprisingly, felon exclusions also showed significant racial bias. African Americans comprised over 65 percent of the 1999 and 2000 lists even though they represented only 11 percent of Florida's voting population (USCCR, 2001). Some estimates go as high as 88 percent (Hiaasen et al., 2001). Much of this is due to the fact that Florida's convicted felon population was, and continues to be, disproportionately black. The state's inmate population in 2000 was 54 percent black so even an accurate felon list would likely have been disproportionately African American (FDOC, 2005;

USCCR, 2001). But statistical analyses of the 1999 and 2000 felon lists have shown that even after differences in racial felon demographics are accounted for with ecological corrections, a statistically significant racial bias remains, and most of it is likely to have originated from biases within the FDLE records provided to DBT in 2000 (Stuart, 2004).

There is more to the story however. Felon exclusions at the polls depended as much on the list's implementation as its contents. By Election Day the list was already notorious for its sloppy preparation and error rate and was used inconsistently. Some relied on it faithfully to purge voting lists. Others used it sparingly and a few discarded it altogether. Post Election Day surveys indicate that Republican counties were far more likely to rely on the list than their Democrat counterparts so that actual voter purge percentages were higher in the former. Of Florida's 67 counties, 43 used the list and 24 did not, with 80 percent of Republican election supervisors and 60 of Democrat supervisors saying they relied on the list to at least some extent. Only 2 counties reported using the list uncritically, purging every name listed (Stuart, 2004).

Due to its inconsistent use on Election Day, the felon list alone is not indicative of actual voter disenfranchisement. Many of those listed did not end up being removed from voter roles on Election Day. Many county supervisors weren't buying it, thank you. Even high purge counties in Republican strongholds retained many of those listed having independently verified the listings as erroneous. Actual disenfranchisement rates can only be determined by comparing the November 2000 felon list to the April 2001 Florida Central Voting File, along with FDE data and post Election Day surveys of how the list was used at the county level. Election supervisors in 19 counties were Republicans and those in 44 others were Democrats. The rest were non-partisan. In counties where supervisors reported using the list 33 percent of listed names remained on the legal voter rolls in April 2001. The corresponding figure in counties that did not use it was 74 percent. Statewide, the result was that 67 percent of listed voters were kept on the voter rolls in counties with Democratic supervisors, and 41 percent were in Republican counties, indicating that Republicans were more likely to use the list for felon purging than their Democratic counterparts (Stuart, 2004). Overall, 53 percent of those on the Election Day felon list were still in the Central Voting File in April 2001 giving an actual purge rate of 47 percent. Comparisons of the Central Voter File before and after November 2000 show comparable demographic breakouts by race for purged names from both Republican and Democrat majority counties, and across those that used the list and those that did not (Stuart, 2004). In addition, high purge counties show similar racial demographics of those purged and retained to low purge counties and even those that did not use the list. These estimates do not account for those who chose to walk away rather than vote or contest their listing--possibly a significant contribution to final disenfranchisement (USCCR, 2001; Mintz and Slevin, 2001; Stuart, 2004). But on the whole, the evidence suggests that racial bias was *not* a significant factor in Election Day use of the list.

The possibility that Database Technology slanted the list racially must also be considered. Many have argued that it likely was, citing DBT screening methods and data as well as questionable FDE directives during the list preparation (Palast, 2001; 2002; Lantigua, 2001). There is some support for this in that the company is known to have financial and political ties to Katherine Harris and Republican special interests, had been provided data from FDLE and Florida Motor Vehicle Department that included racial data, and had received instructions from FDE that had been confusingly worded and could have been interpreted as an injunction to use racial data (CSCCR, 2001; Palast, 2002). However error distributions in the list do not indicate that race was a factor in its preparation. Of the multiple data sources used by DBT for their compilations, some included racial data and where race is reported across all matched records discrepancies occur in up to some 6.7 percent of the total felon list (Stuart, 2004). This error rate is much higher than would be expected if DBT had been using racial data in their screening. Overall, the evidence suggests that racial biases in the felon list were aliased into it from the original data Florida provided to DBT.

This can be tested. FDLE criminal records and the Central Voter File both cover the general population (FDLE tracks those who don't have criminal records as well as those who do). If the errors in FDLE records are truly unbiased errors they will be random, and as such will they and the CVF should reflect the same racial demographics as the general population--14 percent black/ 86 percent white--because both are drawn from this "pool". If so, random draws of paired listings from each database should show racial mismatch rates in similar proportions. In fact, such a test has been done by Stuart (2004). He performed such a test using the year 2000 FDLE database and the April 2001 CVF (which will be no more than negligibly different than the January 2000 list as state demographics did not evolve significantly during the intervening period). He obtained racial mismatch rates that differed significantly from what would be expected and biased against blacks (Stuart, 2004). This provides strong evidence that the felon list was in fact racially biased, and that the biases were aliased into the list by racially biased Florida state criminal records.

The true accuracy of the Election Day felon list may never be known for certain. Various estimates based on state and county level voter data yield error rates ranging anywhere from 6 to 90 percent, with most falling in the 15 to 30 percent range (Wikipedia, 2005; USCCR, 2001; Kissell, 2002; Stuart, 2004). ChoicePoint has admitted that an error rate of at least 15 percent is likely and similar error rates have been obtained by some independent checks (Palast, 2001; Stuart, 2004). Stuart (2004) reports based on various measures that the most probable error rate is between 20 and 30 percent. By 2003 Florida had overhauled its entire felon purging process, and DBT (now ChoicePoint) is no longer used (the company has stated that they are "getting out of the business" of voter screening). Another company, Accenture, has since been hired to prepare the list using much tighter standards--exact name matches, Social Security Number, and more. At least one review of the 1999-2000 lists using these standards concluded that some 12,023 Floridians had been flagged as felons on Election Day 2000 that would not have been if the Bush/Gore runoff were held today (Smith, 2003). Yet even this list is known to have problems that may either disenfranchise non-felons or allow actual felons to slip through.

The felon list used on Election Day 2000 had a total of 42,322 names, but Choicepoint admitted after the election that they had generated listings of over 94,000 names. Post election comparisons of these records with county records and other data yield overall error rates of 15 to 30 percent, in good agreement with the more probable error rate estimates and what ChoicePoint has admitted to off the record and other estimates of the felon list itself (Stuart, 2004; Wikipedia, 2005; Kissel, 2002; Palast, 2002). Where the felon list was not used, independent checks were done using FDLE, existing county records, and other records, all of which were also known to have errors. The USCCR (2001) conducted their own study of these based on FDLE's checks of 13,190 of their own records and inquiries to 5,000 of those listed. They found error rates ranging from 19 percent assuming that all who responded to inquiries were actual felons (very conservative) to 50 percent assuming that the error rate among these 5000 respondents was representative of the list as a whole (very likely given the sample size and random record selection). Based on how these records were used on Election Day, along with some conservative assumptions regarding the effectiveness of screening efforts by county supervisors, leads to the felon vote and non-felon voter disenfranchisement counts due to these lists that were given above. Actual rates for each are not likely to be lower.

Racial Biases in Florida 2000

To no one's surprise, the fallout from the Florida 2000 election debacle fell disproportionately on poor and minority communities. Of the 175,000 ballots that were spoiled in the Florida 2000 presidential election, the majority were from minority voters, and 21 of the 25 precincts with the highest spoiled ballot rates were predominately African American and (Nickens, 2001; Lichtman, 2001; USCCR, 2001; NORC, 2001; Nickens, 2001; Bousquet, 2002). All 25 were heavily Democrat. Similar statistics hold at the county level. In all, counties that were predominately white by resident or voter demographics were far less likely to suffer above average ballot spoilage and other forms of unintentional voter disenfranchisement (USCCR, 2001; US House, 2001; Nickens, 2001; Wikipedia, 2005c; Balkin & Levinson, 2001). There are a number of possible reasons for this. One notable factor was the absence of precinct level error correction in many optical scan districts. Optical scan technologies allow for correction of voter errors when tabulation is done at the precinct level. Where available this gave voters an opportunity to check their votes and rectify any confusion or errors. Large numbers of voters on these systems were denied access to this safeguard. Where counts were done centrally this benefit was not available, and in at least 2 counties where the option was available county supervisors chose to shut it off anyway (Mintz & Slevin, 2001). The result was a significant increase in ballot spoilage unrelated to voter choice (US House, 2001). Overwhelmingly, lack of access to these safeguards occurred in precincts that were predominately minority and/or poor and overwhelmingly Democrat. They were almost universally available to affluent white Republican voters (USCCR, 2001; US House, 2001). Overall, voting irregularities including polling place problems, poorly designed ballots, lack of onsite voter support, and technology related issues fell disproportionately on minorities, particularly in Palm Beach, Miami-Dade, and Duval Counties (USCCR, 2001; Herron & Sekhon, 2003; Mebane, 2004; US House, 2001; Mintz and Keating, 2000; Bonner & Barbanel, 2000; Brady, 2000; St. Petersburg Times, 2001).

As we just saw, the year 2000 Florida felon list was also weighted against minorities. On a county level, African Americans constituted anywhere from 54 to 67 percent minority while comprising only 11 to 29 percent of the voting population (Palast, 2000; Wikipedia, 2005c). Statewide, African Americans were only 11 percent of Florida's total year 2000 voting population but they represented 44 percent of the race verified names on the list. By comparison, white

representation was only slightly higher (51 percent) though they comprise 79 percent of the voting population. Much of this can likely be attributed to factors other than systemic of intentional racial biases. For instance Herron and Sekhon (2005) found that while per capita residual vote rates are significantly higher for African Americans than for whites, they are reduced by well over 50 percent when one or more black candidates are on the ballot, indicating that much of the disparity is due to intentional abstention. Other studies have shown that differences in technology also account for much of the discrepancy, even to the point that equipment updates alone may rectify most of the black/white residual vote rate differences nationwide (Tomz & Van Houweling, 2003). Racial demographic differences between the felon list and the general population are largely due to African Americans being overrepresented in Florida's convicted felon population. The state's year 2000 prison inmate population (54 percent of Florida's general population) was African American. This is much closer to the felon list racial breakdown than an overview of the general population would imply (FDOC, 2001; Stuart, 2004). This may itself be indicative of systemic racial biases driven by socio-economic or criminal justice factors. But even if true these are not be related to the year 2000 election directly and are beyond the scope of this study.

Even so, after these factors are accounted for significant racial biases remain. Florida's poor and minority populations were more likely to be unjustly denied their voting rights due to unintentional ballot spoilage, lack of onsite voter support, and even lack of access to polling places (Tomz & Van Houweling, 2003; USCCR, 2001; 2001b; Lichtman, 2001; 2001b; Klinker, 2001; Keating & Mintz, 2000; Kelly, 2002; Lantigua, 2001; Wikipedia, 2005; Palast, 2000; Pierre, 2001; Karlan, 2001; Bonner & Barbanel, 2000; St. Petersburg Times, 2001). The brunt of this fell on Democratic voters. With all forms of legitimate disenfranchisement considered, this almost certainly robbed Al Gore of the victory (NORC, 2001; Nickens, 2001; USCCR, 2001; 2001b; NORC, 2001; Keating, 2002).

Ironically, though errors in the felon list fell disproportionately on minority and Democrat voters, this may actually have worked to their advantage. It was noted earlier that there is no evidence that race was an influencing factor in Election Day purge rates in either Republican or Democrat counties. But Republican counties were more likely than Democrats to rely on the list making them more subject to its known errors. As a result blacks, who favored Al Gore by a wide margin, were more likely than whites to have been retained on the voting record than white and latino Bush voters (Stuart, 2004). Whether it was intentional or not, Katherine Harris' carelessness with the list appears to have backfired on her.

It's important to note that by themselves, the biases discussed so far do not imply *intentional* racism--only that there is a statistically significant correlation between minority status and/or poverty and voter disenfranchisement. This may happen for any of a number of reasons. Socio-economic factors are almost certainly a significant factor. Polling place problems like poor equipment, inadequate training of election workers, and polling place access are exacerbated by a lack of funding. Minority communities are typically much poorer than their white counterparts and have less access to the legal and political resources these communities and business interests enjoy (NRC, 1989; 1990; 2001; Imig, 1996). As such, their options for correcting such problems are limited, and this translates directly into systemic voter disenfranchisement. It's well known for instance that modern voting technologies like optical scan have significantly lower unintended ballot spoilage rates than punch-card (Caltech/MIT, 2001; Ansolabehere & Stewart, 2005; Brady, 2000). Poor and minority precincts are less likely to be able to afford systems like these. Increasing access to them could resolve much of the difference (Tomz & Van Houweling, 2003; US House, 2001). Problems like these will impact all voters in any given precinct regardless of race or personal choice.

Poverty and crime are also strongly correlated. Both are overrepresented in minority communities nationwide--again, largely due to socio-economic and political factors these communities have little ability to change (NRC, 1989; 1990; 2001; Imig, 1996). This alone is enough to explain most of the differences between the racial demographics of Florida's year 2000 voting population and felon list. Individual and community level racial biases probably contribute to this to at least some extent, but these are much more difficult to ascertain. However, it has already been shown that at racial biases remain after all other demographic factors are accounted for. Whether any of it is intentional or not, the fact remains that unintended ballot spoilage and voter disenfranchisement fell disproportionately on minorities and the 1965 Voting Rights Act requires that this be addressed. Many of the problems with Florida's election process were well known months in advance of the fall 2000 election--the year 2000 felon list being a case in point. The fact that little was done to rectify these problems ahead of time is cause enough for concern, but the way Florida's spoiled ballots were handled prior in the weeks following Election Day is downright disturbing. There was clear evidence of widespread unintended ballot spoilage in several Florida counties weeks before certification of the year 2000 presidential vote, and it's straightforward to show from demographic data and FDE records that most of the impact fell on predominately

minority communities. Not only was no effort made to recover those votes, Harris and the Bush Campaign actively fought to prevent any attempt at doing so. It's difficult to see how this behavior could have been motivated by anything other than partisan politics.

Faced with growing evidence of irregularities and possible negligence, several government agencies and advocacy groups launched investigations into Florida's handling of the 2000 election, and the activities of Katherine Harris' office and the FDE in particular. On Election Day the U.S. Justice Department had received 11,000 complaints nationwide and over *2,600* of these were from Florida alone (Boyd, 2002). The Florida State Attorney General's office had received 3,600 complaints by phone or letter. Most related to ballot and polling place problems and denial of voting rights due to wrongful felon status or voter record problems. A few alleged intimidation and outright hostility. The DOJ investigated most of these throughout 2001. Special attention was paid to allegations of differential treatment and/or hostility toward minority voters, failure to comply with the National Voters Registration Act, failure to assist voters with limited English skills, failure to provide bilingual reference materials at polling locations, failure to provide access to disabled voters, negligence in the preparation of the felon list, and allegations of polling and canvassing place intimidation. In May of 2002 they closed all but 3 citing insufficient evidence of intentional misconduct, lack of jurisdiction over the crimes involved, or proof that appropriate rectification of the relevant systemic problems had already been made by the state (USDOJ, 2002; Boyd, 2002).

Lawsuits were filed however against Orange, Osceola, and Miami-Dade counties for violations of bilingual support. In June settlements were reached with Orange and Osceola Counties requiring them to meet requirements for full support of Spanish speaking voters (USDOJ, 2002). Overall, DOJ's investigation of Florida 2000 was widely criticized for not adequately addressing many of the most significant issues, particularly the state's handling of the felon list and the Miami violence during recounts (Ferrard, 2002; Smith & Allison, 2002). In 2004 the Government Accountability Office (USGAO) was asked to review DOJ's handling of Florida 2000 and verify that oversight of the Year 2004 election would be conducted differently (USGAO, 2004). It's noteworthy that while most of the Year 2000 DOJ cases in Florida were dropped, many were only because they were either outside of DOJ jurisdiction or because it was determined that county or state level reforms had already rectified the problems, *not because the original complaints lacked merit* (USGAO, 2004). The Miami and Broward riots were a case in point. The facts surrounding these riots were not disputed, including the assaults on Democrat elections officials. The cases were set aside only because the DOJ concluded that the issue was outside of their jurisdiction and should be left to local authorities (USDOJ, 2002; USGAO, 2004).

The U.S. House Committee on Governmental Reform conducted a separate investigation of how poverty and high minority population impacted ballot spoilage by congressional district during the 2000 presidential election in 20 states including Florida (US House, 2001). Among other things they found that in these states,

- Voters in low-income, high-minority Districts were over three times more likely to have their votes discarded than voters in affluent, low-minority districts.
- Along with the 1st District of Illinois, Florida's 17th District had *the highest ballot spoilage rate in the nation* with nearly one in every 12 ballots being discarded--over six times the national average for affluent, low-minority districts and over *twenty times* that of the best of these (the 3rd District of Minnesota).
- Better voting technology significantly narrowed the disparity in uncounted votes between low-income, high-minority districts and affluent, low-minority districts indicating that where these changes were not made by state and local authorities, poor and minority voters suffered higher unintentional ballot spoilage.
- Ballot spoilage rates were much lower in counties using optical scan methods where votes were tallied at the precinct level rather than centrally counted.

  (US House, 2001)

These ballot spoilage rates are much higher than historically observed rates of intentional abstention (Stuart, 2004) demonstrating systemic disenfranchisement of voters in poor and minority districts.

The U.S. Civil Rights Commission also investigated the Florida 2000 election and found numerous irregularities. Hearings were held in Tallahassee during January 2001 and in Miami during February, 2001. The commission reviewed some 30 hours of sworn testimony from over 100 witnesses and reviewed over 118,000 pages of documents. Their final report issued in June 2001 documented significant voter disenfranchisement including "restrictive statutory provisions, wide-ranging errors, and inadequate resources in the Florida election process [that] denied countless Floridians of their right to vote." They also found that disenfranchisement "fell most harshly on the shoulders of African Americans." They were also able to show that even after demographic disparities and intentional residual voting had been accounted for statistically significant racial disenfranchisement remained (Lichtman, 2001; 2001b). In summary they concluded that,

> "[The] Commission is duty bound to report, without equivocation, that the analysis presented here supports a disturbing impression that Florida's reliance on a flawed voter exclusion list, combined with the state law placing the burden of removal from the list on the voter, had the result of denying African Americans the right to vote. This analysis also shows that the chance of being placed on this list in error is greater for African Americans. Similarly, the analysis shows a direct correlation between race and having one's vote discounted as a spoiled ballot. In other words, an African American's chance of having his or her vote rejected as a spoiled ballot was significantly greater than a white voter's. Based on the evidence presented to the Commission, there is a strong basis for concluding that section 2 of the VRA was violated."
>
> (USCCR, 2001)

In January of 2001 the National Association for the Advancement of Colored People filed a class action lawsuit against Harris, FDE Director Clay Roberts, the Choicepoint Corporation, and several Florida county elections supervisors for their handling of the election. In their suit they cited failure to maintain adequate standards for reliable voting system hardware and software and to guarantee impartial counting of ballots for all Florida voters, failure to maintain compliance with the National Voter Registration Act of 1993, failure to provide adequate polling place support for minority and bilingual voters, gross negligence in the management of the Florida felon list and Central Voter File (NAACP, 2001). Support was provided throughout the trial by the Lawyers' Committee for Civil Rights under Law, People for the American Way, the Miami based law firm of Williams and Associates, the NAACP Legal Defense and Educational Fund, Inc., the Advancement Project, and the American Civil Liberties Union (ACLU). By September of 2002, settlements had been reached in the NAACP's favors with all defendants. As a result sweeping reforms of Florida's election system were implemented including the creation of a new position to monitor the state's compliance with the National Voter Registration Act, a full review of the felon list at much higher standards followed by the restoration of all wrongfully purged voters, and increased training for polling place workers on voter registration and polling place voter support (USCCR, 2002).

Florida 2000 and the Far-Right

As might be expected none of this went unchallenged. As of this writing it has been four and a half years since the Florida 2000 election. During this period thousands of investigative articles and editorials dismissed criticisms of the election as "political correctness" based entirely on "urban legends". No one was disenfranchised and no member of Florida's state government, particularly Secretary of State Katherine Harris and Governor Jeb Bush was in any way negligent. Claims to the contrary, they insisted, were nothing more than sour grapes on the part of Democrats who were interfering with "the will of the people" and delaying America's right to the leadership of their chosen president. In preparation for this paper I conducted over 6 months of online and database literature searches of broadcast, print, and online publications including news media, books, cable news articles and editorials, and online discussion forums, during which I uncovered literally thousands of articles and commentaries excoriating Democrats and/or "liberals" for their criticisms of the Florida 2000 election. All came from Far-Right forums and think-tanks of which there were a few hundred total. Apart from denunciations of comments made by a small handful of Far-Left extremists, the bulk of these attacks were directed at the USCCR report on Florida 2000 (USCCR, 2001; 2001b) and concentrated on the commission's investigation of the felon list, the statistical analysis of ballot spoilage it relied on (Lichtman, 2001), and its conclusions regarding the extent of the disenfranchisement. Without exception, all were based on a handful of claims referencing one or more of the same four sources: year 2001 investigations of felon votes by the Palm Beach Post (Hiaasen et al., 2001; 2001b) and the Miami Herald (Merzer, 2001), the dissenting statement to the USCCR report by

commissioners Abigail Thernstrom and Russell Redenbaugh (2001), and the U.S. Dept. of Justice investigation of civil rights violations in the election (Boyd, 2002). In every case the conclusions of these reports were simply repeated with no further examination of their content or methods. In what follows I'll examine these claims and the extent to which the four primary sources referenced above support them. Only a few representative examples from Far-Right forums will be provided, as any one of these is very much like the rest and virtually none offer any content beyond direct quotations of the four primary sources.

1) *By definition racial disenfranchisement involves a premeditated, and intentionally racist plot to rob minorities of their vote, and this is what Democrats and the USCCR accuse Florida and Bush of having done.*

Even a casual reading of the USCCR report reveals that this is a straw man, yet it has been consistently and stridently repeated ever since it was published. Peter Kirsanow, himself a member of the Commission and a vocal critic of the report was typical of most when he claimed in a March 2004 editorial for the National Review that,

> "Even before the last vote had been cast, activists had descended upon Florida, claiming a widespread conspiracy to disenfranchise black voters. Allegations that state troopers put up roadblocks and checkpoints to prevent blacks from voting were rampant. Dogs and hoses were allegedly used to drive black voters from the polls. Bull Connor's heirs had been unleashed - all at the direction of Governor Bush and his sidekick, Secretary of State Katherine Harris.
>
> The U.S. Commission on Civil Rights investigated these allegations over a six-month period beginning in January 2001. Its 200-page majority report, Voting Irregularities in Florida During the 2000 Presidential Election, excoriates Florida's election officials for various acts of misfeasance. But the conclusions drawn by the report often bore little relationship to the facts contained therein. And media descriptions of the report did little to dispel the widespread belief among the black electorate that blacks had been systematically targeted for harassment, intimidation, and disenfranchisement....
>
> The myth of a nefarious plot to thwart black voters from casting ballots is wholly unsupported by the evidence. Inconvenience, bureaucratic errors, and inefficiencies were indeed pervasive. But these problems don't rise to the level of invidious discrimination." (His emphasis)
>
> (Kirsanow, 2004)

It is true that some "activists" made accusations of deliberately discriminatory plots, but these were relatively few and certainly no less credible than their equally extreme Republican equivalents, particularly during the Gregoire/Rossi runoff. The real content of the attacks were against the USCCR report whose conclusions Kirsanow claims "often bore little relationship to the facts contained therein." Kirsanow depends heavily on the dissention of Thernstrom and Redenbaugh for his case, as does nearly every other Far-Right forum in America. They specifically accuse the USCCR report of making this claim in regard to the felon list.

> "The report asserts that the use of a convicted felons list 'has a disparate impact on African Americans.' 'African Americans in Florida were more likely to find their names on the list than persons of other races.' Of course, because a higher proportion of blacks have been convicted of felonies in Florida, as elsewhere in the nation. But there is no evidence that the state targeted blacks in a discriminatory manner in constructing a purge list, or that the state made less of an effort to notify listed African Americans and to correct errors than it did with whites."
>
> (Thernstrom & Redenbaugh, 2001)

Pennsylvania attorney Joe Kerry, formerly a Hinckley Institute of Politics Fellow in the Bush Sr. Administration, extends this argument to ballot spoilage with arguments based on the subtleties of intent and an unusually careless attempt at statistical inference. In August 2004 he published an editorial at the web site of Far-Right talk-show host Glenn Beck that has since been widely circulated on the Internet. Repeating Thernstrom and Redenbaugh almost word-for-word he states that,

> "The [USCCR] investigation found no credible evidence that any Floridians were INTENTIONALLY denied the right to vote in the 2000 election. The Commission did find, however, that many Florida voters, irrespective of race, spoiled their ballots by MISTAKE. But voter error is not the same thing as 'disenfranchisement' and it certainly isn't evidence of any conspiracy or plot to steal or suppress black votes....
>
> According to the Commission's report, some 180,000 Florida voters in the 2000 election, 2.9 percent of the total, turned in ballots that did not indicate a valid choice for a presidential candidate and thus could not be counted in that race. 59% of these ballots were "overvotes". The chief problem in Florida was voters who cast a ballot for more than one candidate for the same office (59%), and the second most common problem was voters who registered no choice at all. (35%). Ballots were 'rejected,' in short, because it was impossible to determine which candidate-if any-voters meant to choose for president.
>
> No statistical significant evidence was presented of political/race based ballot disqualification. 94% of Florida voters simply voted for too many presidential candidates or none at all." (His emphasis)
>
> (Kerry, 2004)

Kirsanow and Kerry wisely concede that minorities suffered disproportionately from Florida's year 2000 problems. But apart from voter error (a claim to which we will return shortly), they argue that this is a non-issue because none of it was *intentional*. This is of course, ludicrous. Imagine that a large number of brake failures in a certain model year of automobile led to numerous deaths and injuries soon after it went to market, and upon investigation it was discovered that the manufacturer had made serious compromises in the design and quality control of that vehicle's brake systems to cut costs. According to Kirsanow and Kerry's logic the manufacturer would not be responsible in any way for this because they hadn't purposely "intended" to hurt anyone. There isn't a court anywhere in the world that would buy an argument like this.

Kerry's comments are particularly revealing. In his last paragraph he informs us that "94% of Florida voters" cast undervoted or overvoted ballots that did not identify a presidential choice. Surely he doesn't believe (I hope) that of Florida's 5.8 million year 2000 voters, 5.4 million cast overvoted or undervoted ballots. Giving him the benefit of a doubt, he appears to have meant that 94 percent (59 + 35) of Florida's *spoiled ballots* did not identify a presidential choice. In fairness to him, typos happen to all of us (I've made more than my share). But as of this writing (July 17, 2005) it's been almost a year since this editorial was first published, and it's *still* at Glenn Beck's web site (www.glennbeck.com) uncorrected, and being circulated typo and all in numerous Far-Right forums nationwide. The fact that an error this obvious can go uncorrected for over a *year* in numerous conservative forums nationwide--one that even 20 seconds worth of proofreading would have caught—speaks volumes about the thoroughness and professionalism involved.

Ironically, even the intended statement is incorrect. We've already seen that a significant fraction of Florida's spoiled ballots contained clear indications of an intended choice and "statistical significant (I think he meant to say statistically significant) evidence of political/race based ballot disqualification" (). Rather than investigate any of this properly, Kerry merely repeats Thernstrom and Redenbaugh's sweeping generalization of these ballots as ambiguous, and unlike them the NORC report (2001) was available to him had he bothered with investigating any of this himself.

Either way the point is moot. The USCCR reviewed Florida 2000 under the guidelines of Section 2 of the Voting Rights Act (VRA). That Act targets *subtle and unintended* racial bias as well as intentional discrimination. It states that discrimination may be established using results tests and that under these tests there is no requirement for proof of discriminatory intent. It also describes factors to be considered in determining whether discrimination has occurred (U.S. Congress, 1981; U.S. Senate, 1982). Under these guidelines the USCCR did not base any of their findings on evidence of premeditated intent. In fact, the executive summary at the beginning of their report states that,

> "The VRA does not require intent to discriminate. Neither does it require proof of a conspiracy. Violations of the VRA can be established by evidence that the action or inaction of responsible officials and other evidence constitute a “totality of the circumstances” that denied citizens their right to vote. For example, if there are differences in voting procedures and voting technologies and the result of those differences is to advantage white voters and disadvantage minority voters,

> then the laws, the procedures, and the decisions that produced those results, viewed in the context of social and historical factors, can be discriminatory, and a violation of the VRA.
>
> *The report does not find that the highest officials of the state conspired to disenfranchise voters. Moreover, even if it was foreseeable that certain actions by officials led to voter disenfranchisement, this alone does not mean that intentional discrimination occurred*. Instead, the report concludes that officials ignored the mounting evidence of rising voter registration rates in communities. The state's highest officials responsible for ensuring efficiency, uniformity, and fairness in the election failed to fulfill their responsibilities and were subsequently unwilling to take responsibility." (My emphasis)
>
> (USCCR, 2001)

So the report explicitly states that no evidence of discriminatory intent was found. Instead, it claims that election officials were negligent in their maintenance of efficiency, uniformity and fairness in the election, and the consequences of this fell disproportionately on minorities. But it discusses what constitutes actionable disenfranchisement within the guidelines of the Voting Rights Act. Discussing the 1982 amendments to the act the reports states that,

> "The 1982 amendments do not preclude plaintiffs from introducing evidence of discriminatory intent, but rather properly afford plaintiffs the option of demonstrating that the challenged electoral procedure has the effect of denying a protected class equal access to the political process and electing representatives of their choice.
>
> In its amendment of section 2, Congress reaffirmed that discrimination could be established using a results test and that under this test there was no requirement to prove discriminatory intent. Congress described factors to be considered in determining whether, under the results test, discrimination has occurred. The results test, also known as the 'totality of the circumstances' test, only requires the plaintiff to prove that a challenged election process results in a denial or an abridgment of the right to vote. This amendment restored previous Supreme Court precedent, allowing violations of section 2 to be established by demonstrating abridgement of voting rights by totality of the circumstances or intentional discrimination.
>
> Under the VRA, as amended, a violation of section 2 may be established by either showing intentional discrimination or that the totality of the circumstances 'results' in a section 2 violation. Evidence of discriminatory intent is not limited to direct evidence; intent may be demonstrated by the impact of the challenged action on minorities, the ability to foresee that impact, the historical background of the challenged action, the sequence of events leading up to the challenged action, and the legislative history. 'The essence of a Section 2 claim is that a certain electoral law, practice, or structure interacts with social and historical conditions to cause an inequality in the opportunities enjoyed by African American and white voters to elect their preferred representatives.' A person attempting to prove a violation of the VRA "must either prove [discriminatory] intent or alternatively, must show that the challenged system or practice, in the context of all the circumstances in the jurisdiction in question, results in minorities being denied equal access to the political process." (My emphasis)
>
> (USCCR, 2001)

It's difficult to see how the USCCR could have been more explicit than this. Kirsanow and Kerry dutifully report the committee's conclusions regarding intentional discrimination, but carefully avoid any discussion of the basis for pursuing all discriminatory effect within the jurisdiction of county and state level offices. From the looks of it, the "nefarious conspiracy" argument is being advanced only because it provides a convenient excuse for avoiding the larger issue of voter disenfranchisement—and the evidence supporting it.

2) *The Felon List was Unbiased and Too Lenient*.

In September of 2004 the Wall Street Journal published an editorial that was typical of how Far-Right forums attempted to deflect claims of racial bias in the Florida 2000 felon list. These, they argued, were "fanciful at best".

> "[The] idea that racial animus rather than all-around incompetence produced higher spoilage rates for blacks, or accounted for their misplacement on the infamously inaccurate "felon purge list," is fanciful at best.... And as for the [list], the Miami Herald found that whites were twice as likely to be incorrectly placed on the list as blacks."
>
> (Wall Street Journal, 2004)

Kirsanow also defends this claim. In an October 2003 commentary for the National Review he informs us that,

> "Much has been made of the "felon purge list," i.e., a list of those individuals who, under Florida law, were to be barred from voting due to felony convictions....
>
> The list was inaccurate; it included people who shouldn't have been on it. Thus, the myth holds that the purge list was somehow a tool to deny blacks the right to vote.
>
> But facts are stubborn things. Whites were actually twice as likely as blacks to be erroneously placed on the list. In fact, an exhaustive study by the Miami Herald concluded that 'the biggest problem with the felon list was not that it prevented eligible voters from casting ballots, but that it ended up allowing ineligible voters to cast a ballot.' According to the Palm Beach Post, more than 6,500 ineligible felons voted."
>
> (Kirsanow, 2003)

Kirsanow references the Miami Herald and Palm Beach Post studies, and Thernstrom and Redenbaugh's dissenting statement (2001) for his conclusions (three of the four primary sources). He repeated them in an October 2004 interview with Brit Hume on Fox News where Kirsanow informed us that,

> "The allegation, at least the principle allegation at the outset is that blacks were more likely to be placed on the list than whites. And the insinuation or the inference to be drawn from that that this was somehow part of a scheme to disenfranchise certain types of voters. The facts are that twice as many whites were improperly placed on the ballot, on the felon purge list as blacks. And in addition to that, as The Miami Herald found, approximately 6,500 ineligible voters, ineligible felons did in fact vote, and as they concluded, the biggest problem with the felon purge list was that it permitted felons to vote."
>
> (Fox News, 2004)

Hume asked Kirsanow how many lawful voters were actually disenfranchised by the list, "We talking about hundreds or thousands or tens of thousands?" This was "difficult to ascertain", Kirsanow replied, but he guessed that the actual figure was "Probably in the hundreds." Once again, he referred to Thernstrom & Redenbaugh's dissenting statement. This, and the Herald and Post studies are the only sources he referred to in this interview, the October 2003 commentary, or in any other editorial of his I found, of which there were quite a few. At no time did he properly cite these sources in any of them. Thernstrom and Redenbaugh did cite the Miami Herald study (Merzer, 2001) and a May 27, 2001 article from the Palm Beach Post in their dissention (Hiaasen et al., 2001). Once again, these three sources--one of which merely repeats the other two--were the only ones referred to by Kirsanow, Thernstrom and Redenbaugh, and every defense of the Florida 2000 election I was able to find regarding the felon list.

I soon discovered that there was a good reason for this.

The Post article reports the results of their study which used a computer analysis to compare the felon list with FDLE criminal records and Election Day voters. They found that 5,683 Floridians who had cast votes matched both lists by name, date of birth, race and gender (where information on the latter were available). In their dissent Thernstrom and Redenbaugh state on page 8 that,

> "According to the Palm Beach Post, more than 6,500 ineligible felons voted."

> (Thernstrom & Redenbaugh, 2001)

On page 47 they criticized the commission's focus on error in the felon list stating that,

> "In pursuing its attack on the purge list, the Commission completely ignored the bigger story: Approximately 5,600 felons voted illegally in Florida on November 7, approximately 68 percent of whom were registered Democrats."
>
> (Thernstrom & Redenbaugh, 2001)

No reference was cited for either of these figures, but on page 48 they cite Hiaasen et al. (2001) in the Palm Beach Post in support of another figure of 6,500. There, they list several conclusions reached by the Palm Beach Post study including their finding that "more than 6,500 [felons] were convicted in counties other than where they voted, suggesting they would not have been found by local officials without the DBT list" (Hiaasen et al., 2001).

5,600 felons? 6,500? Which is it? Thernstrom and Redenbaugh make no statements clarifying either number and nothing I was able to find anywhere in their dissention indicates that they even noticed the difference. Both are referred at different places as "illegal felons who voted".

The Post analysis retrieved exact and partial matches to combinations of name, birthdate, race, and gender between FDLE and DBT records. What they actually found was that 5,683 records matched exactly by name and 6,500 *partially* matched any of the criteria—a direct result of Harris and the FDE having lowered DBT's matching requirements. Another Post article published the very next day by the same authors (Hiaasen et al., 2001b) describes this study and cites the 5,683 figure with details. Thernstrom and Redenbaugh didn't cite this one. Other than a passing remark about some "regrettable" errors in the felon list, they also made no serious attempt to address the errors in either it or the FDLE database. They did mention the FDLE's attempts to screen their own data, quoting FDLE's General Counsel Michael Ramage in support of the effort. Other than his comments, no specifics were provided. Ramage even confirmed that *half* of FDLE's records were incorrect regarding felon status, confirming the higher error estimate I quotes for that database earlier. Thernstrom and Redenbaugh quickly passed over this without comment.

In other words, the flawed felon list was compared to *the same flawed FDLE database that nearly all of its own data had been taken from* using sloppy record matches to prove that more than 5,600 or 6,500 (pick one) felons had voted. Essentially, this is their entire case.

At various points they report either the exact name match or partial record match figures. Kirsanow appears to have chosen their partial match figure and cited it verbatim. Nowhere in his statements or in Thernstrom and Redenbaugh's dissention is there any indication of an understanding of where these figures came from or what they represent.

Yet Far-Right forums nationwide have been repeating them uncritically ever since.

On page 47 Thernstrom and Redenbaugh go on to say that,

> "According to recent studies, the total number of wrongly-purged alleged felons was 1,104, including 996 convicted of crimes in other states and 108 who were not felons. This number contradicts the Commission's claim that 'countless' voters were wrongly disenfranchised because of inaccuracies in the list.
>
> Most notably, the Commission did not hear from a single witness who was prevented from voting as a result of being erroneously identified as a felon."
>
> (Thernstrom & Redenbaugh, 2001)

Once again no citations are provided for the wrongly-purged felon figure, here or anywhere else. A search of the Internet reveals numerous other references to the 1,104 figure in conservative forums. Virtually every one merely quotes Thernstrom and Redenbaugh without providing any citations of their own. Eventually, I found an article in Legal Affairs (Taylor, 2001) that quoted it with the comment that it had come from "a study by the Palm Beach Post"—yet *again* without a citation that could be checked (*what is it with these people and their inability to document their claims?*). The reference appears to be to the same Palm Beach Post study from which Thernstrom and Redenbaugh obtained their felon voter figures which made reference to "at least 1,100 eligible voters wrongly purged from the rolls before last year's election" (Hiaasen et al., 2001).

So once again, we're back to the same comparison between two self-referencing flawed lists, and as before there is no evidence of anyone having checked where their figures came from or how they were derived. It's noteworthy that Hiaasen et al. said *at least* 1,100. As noted earlier, use of the felon list by county was sporadic. Some, like Volusia, used it at face value and made no attempt to verify its contents. Others refused to use it altogether. Of those that did use it, most made some attempt to check listings. In most cases this was done by mailing letters to those listed asking for confirmation. In a few cases, newspaper advertisements were also used. Those who were wrongly listed and responded to these efforts were cleared. Anyone who did not remained disenfranchised. Many of those caught in the snare later reported that they had not received a letter or been notified in any way. Lower income voters, who were heavily represented on the felon list, often reside in temporary housing and move regularly making them difficult to reach. Others may simply have decided that it wasn't worth the fight. In many cases, letters were not even sent to these people. Leon County for instance had a list with 690 names but sent notification letters to only 33 of these people (Lantigua, 2001).

Whatever the reason accuracy checks via outreach will be based on *respondent data only*. If anything, these are conservative estimates of disenfranchisement. They will not reflect those who did not receive notification before Election Day or those who did not, or could not respond. This is even implied in the actual listings themselves. Of those on the 2000 list, 3,533 were identified as "possible matches" only. Of these, 1,404 were for SSN and last name only, and 1,919 were for last name and a *derived* SSN (Stuart, 2004). How many "possible" matches might there be in the entire state of Florida for someone named "Smith" or "Jones" and the indirectly derived SSN of a felon with either last name? There were more people in the latter category alone than Thernstrom and Redenbaugh's alleged total. The two categories together are over three times that figure. It's difficult to believe that the total number of people wrongly purged by the list was only a third of the number of fuzzy name matches on the list, before consideration of how many of the FDLE records being matched were correct to begin with.

Thernstrom and Redenbaugh's dissent was published in June of 2001, concurrent with the USCCR report. As news of the felon list debacle continued to spread, more of those wrongly listed came forward and challenged their status in court. Cases continued through the following year and beyond. By September of 2002 2,347 people had won (LCCRUL, 2002).

What about the claim that whites were twice as likely to be wrongly listed as blacks? Surely *that* disproves the USCCR report's claim that the felon list was racially biased doesn't it? This time Thernstrom and Redenbaugh did present their case. On page 46 they state that,

> "The sole piece of supporting evidence [the report] cites a table with data on Miami-Dade County. Blacks were racially targeted, according to the report, because they account for almost two thirds of the names of the felon list but were less than one-seventh of Florida's population.
>
> This might seem a striking disparity. But it ignores the sad fact that African Americans are greatly over-represented in the population of persons committing felonies--in Florida and in the United States as a whole. The Majority Report never bothers to ask what the proportion is. Without demonstrating that less than two-thirds of the previously convicted felons living in Miami-Dade County were African American, the racial disproportion on the felon list is completely meaningless."
>
> (Thernstrom & Redenbaugh, 2001)

Once again the "racial targeting" straw man is wheeled out, but apart from that the basic point is correct. There is no reason statistically to expect the felon list as a whole to reflect the same racial demographics as the general Florida population. As they said, the state's inmate population and incarceration rates are disproportionately black and we would expect the racial breakdown of the felon list to be closer to this. While this disproportionality might reflect other racially slanted problems with society at large, that is another question altogether and beyond the scope of how the felon list was handled. Thernstrom and Redenbaugh rightly assert that apart from a demonstration that the felon list is slanted toward blacks in greater proportions than would be expected from the state's felony conviction trends by race, the USCCR has not shown that the list's preparation was racially slanted.

Beyond this, their case falls apart quickly. The table they referred to was Table 1-4 from the USCCR report which presented erroneous listings on the 1999 and 2000 felon lists for Miami-Dade County broken down by race and successful appeals. They go on to say that,

> "The table reveals that 239 for the 4,678 African Americans on the Miami-Dade felons' list objected when they were notified that they were ineligible to vote and were cleared to participate. They represented 5.1 percent of the total number of blacks on the felons list. Of the 1,264 whites on the list, 125 proved to be there by mistake--which is 9.9 percent of the total. Thus, the error rate for whites was almost double that for blacks."
>
> (Thernstrom & Redenbaugh, 2001)

A few basic principles of statistics are enough to reveal the flaws in this argument. For starters, Miami-Dade is not even remotely representative of Florida's general population. As reflected in the CVF, Florida was roughly 11 percent black and 79 percent white in 2000--a proportion that has changed little since. Miami-Dade County however was about 21 percent black and 32 percent white. Its felon population is also different from the rest of the state. Any argument based on the demographic breakdown of either, including valid ones, would not extrapolate to the rest of the state. Thernstrom and Redenbaugh referred to Miami-Dade simply because the USCCR did (the USCCR focused on Miami-Dade only because it provided the clearest example of the issues they wanted to highlight--*not* because they considered it representative of Florida in general). Having chosen a decidedly unrepresentative county, they proceed to use inadequate data and a statistical measure that is not relevant to their point. Their estimate of the felon list's error rate is based only on a survey of those who *appealed* their listings successfully. We already saw that this ignores those who did not appeal, which is likely a significant number, and also examples of counties such as Leon that didn't even contact a majority of those on their lists. The data for a more thorough and representative comparison was available to them had they desired one. Their dissenting statement was released in June 2001. At that time the April 2001 CVF, and county level data on how the list was used were both available. Furthermore, the CVF does contain racial data that the felon list alone did not, which allows for error rates across the state to be segregated by race. Though not exact, the actual retentions by race in counties that used the list would have provided them with a far more believable estimate of the list's error rate than a handful of appeals in a county that bore little demographic resemblance to the rest of the state. This was not done.

Stuart (2004) did provide this breakdown in a year 2002 preprint of his paper. Table 10 of his 2002 preprint shows the distribution of voters on the 2000 felon list and the April 2001 CVF by race and how the list was used. His Table 12 provides the same data for counties that made heavy use of the list, with and without Miami-Dade County included.

Stuart provides Miami-Dade data alone for comparison precisely because he recognized what Thernstrom and Redenbaugh did not--that Miami-Dade was an outlier in felon list purge demographics and *not* representative of the state in general, or even of the sum total of all counties that relied on the list.

For Miami-Dade Table 12 shows 816 listings for blacks of which 108 were retained. The corresponding figures for whites are 209 and 30 (these figures will not correlate directly with those used by Thernstrom and Redenbaugh as they reflect only the year 2000 list rather than those for 1999 and 2000 combined). Because retention rates will reflect errors discovered by those using the list using a variety of methods they will provide a more inclusive look at errors than appeals alone and will likely capture many who did not appeal their listings along with those who did. Applying Thernstrom and Redenbaugh's method to this data yields racial "error rates" of 14 percent for whites and 13 percent for blacks contrary to Thernstrom and Redenbaugh's claim. For the entire state--the real figures of interest--comparable figures are provided in Table 10 for all Florida counties that used the list. There we have 7,727 listings for blacks of which 2,255 were retained, and 10,529 and 3,655 respectively for whites. This yields a rate of 35 percent for whites as compared to 29 percent for blacks--higher but again, hardly by a factor of two.

In fact, none of these figures is meaningful because Thernstrom and Redenbaugh are using a bogus statistic. Racial percentages alone are more likely to reflect felony convictions rather than errors. For *error* rate we must consider how the list was created. We saw earlier that the felon list was derived mainly from the FDLE Database. Likewise, the end result of list driven purges will be manifested in the April 2001 CVF. The FDLE Database and the CVF are both drawn from the same pool--the general Florida population. If the errors in the felon list truly are *errors*, they will be unbiased. Given this, and the fact that the sample sizes in question are large (>> 1000), they will reflect the same demographics as the CVF. Note that because it is the *errors* that interest us--not the list makeup in general--this will be true *regardless of the racial distributions of felony conviction rates by county or state*. If the list truly is biased racially we would expect wrongful listings to diverge from the racial demographics of the general population as reflected in the CVF--around 14 percent black and 86 percent white omitting latinos--*regardless of whether wrongful listings for whites are more numerous than those for blacks*. Inspection of the USCCR data for Miami-Dade, Stuart's data for high purge counties and all of Florida, and other estimates of felon list error rates shows clearly that this is not the case. No matter how the numbers are worked, blacks are disproportionately reflected in erroneous listings at far higher than the 14 percent rate we would expect statewide.

Thernstrom and Redenbaugh point out that the committee did not interview anyone who had been barred from voting due to an erroneous listing. Their wording implies not only that few if any voters were actually disenfranchised due to a wrongful listing, but that *they personally did not know of anyone who had been*. Yet their own source names no less than five people who were wrongly listed and specifically describes how three of them had been barred from voting (Hiaasen et al., 2001). The *first five paragraphs* of the article tell the story of one of them. Surely these present a picture of the human impact of wrongful disenfranchisement. Thernstrom and Redenbaugh could not have read this article thoroughly and honestly without seeing this, making their attempts to minimize the issue evasive at best, if not downright callous. Furthermore, even if we grant their estimate of voters disenfranchised by the felon list, we're still left with 1,104 law abiding citizens who were robbed of their rightful vote for president. This represents more than *twice* Bush's margin of victory. It has already been shown that close to two-thirds of those wrongly listed were Democrat voters, implying that if those people had not been denied their rightful vote, they may well have swung the election. I doubt Thernstrom and Redenbaugh would be so cavalier if the roles were reversed. The WSRP invested over 5 months and millions of dollars into challenging the Gregoire/Rossi race on a similar number of actual felon voters and fewer than 200 wrongful felon listings, none of whom were denied their vote--while countless Far-Right forums nationwide decried the travesty of it all. This is not a credible argument.

3) *Ballot Spoilage was not Racially Biased*.

Of all the USCCR's claims, none provoked as much rage as their assertion that the impacts of Florida 2000 fell disproportionately on minorities. The largest part of their racial disparity evidence came from eyewitness testimony and several statistical analyses of ballot spoilage rates. The Commission concluded that statewide, ballot spoilage was nine time more likely to fall on poor and minority voters than whites. Thernstrom and Redenbaugh devoted most of their dissent to a blistering attack on this conclusion, which they said incompetent and entirely political in motive. At times their criticisms border on outright slander. They were especially critical of the statistical analyses that provided the lion's share of the Commission's evidence and devoted literally dozens of pages to debunking it. But in all, their case boils

down to a handful of specific claims. In what follows I will present a brief overview of the Commission's analysis, followed by an examination of each one.

The USCCR Statistical Model

The Commission based most of their conclusions on a series of multiple regression analyses by Allan Lichtman of American University (Lichtman, 2001). Lichtman analyzed ballot spoilage in 54 of Florida's 67 counties for which there were separate records of undervotes, overvotes, and total unrecorded votes. These covered 94 percent of all ballots cast in Florida 2000. Independent variables included county voting technology, race, education, income level, percentage of registered black voters by county based on year 2000 voter registration data, and a number of other socioeconomic variables. Miami-Dade, Duval, and Palm Beach Counties were examined at the precinct level because they were statistical outliers for ballot spoilage and racial demographics. Voter registration data for these three was obtained from 1998 county level registration records, which correlated with the comparable year 2000 records at the 0.996 level (near perfect). Unrecorded vote data for them was obtained from Hansen (2001). Data on election returns, voter registration, and voting technology for the remaining counties was obtained from the FDE website (FDE, 2001b). Information on unrecorded votes was obtained from the Governor's Select Task Force report GSTF/CCPP, 2001, pgs. 31-32), court records from Siegel v. Lepore (2000), and CNN and the Associated Press (CNN, 2000). Data for other socio-economic variables was obtained from the 1990 U.S. Census (USBC, 1990). Estimated literacy rates were obtained from CASAS (CASAS, 1996; Reder, 1997).

Lichtman compared county and precinct racial compositions to overall unrecorded votes, overvotes, and undervotes using simple statistical, multiple regression, and ecological regressions. Ecological regressions attempt to infer the behavior individual data points from aggregate samples--in effect, inferring a subsample at "below grid" levels. In this case individual voter behavior by race was inferred from county and precinct level aggregates for which reliable data was available. Though useful if carefully prepared, they can be unreliable if the region being evaluated is strongly heterogeneous in one or more of the regression variables--as the saying goes, if Bill Gates shows up at a town hall meeting in a slum neighborhood, he average income in the room will suddenly go up by $1 million. Scale factors like this can be extraordinarily difficult to control for without introducing spurious correlations, so ecological regressions do not yield deterministic solutions (Schuessler, 1999). But there are ways to test their robustness. Where independent data is available for one or more variables at smaller scales than the aggregate averages being used, it's often possible to get a "clean look" at these variables without inferring anything about their aggregate behavior. A precinct that is 100 percent black or white for instance, will give a clear look at the race variable that can be compared with the larger model even if other variables are present (Duncan, 1953). The method is limited in scope in that it can only be used where conditions allow for such a "clean" look. But where it can be used it provides a reliable robustness check of the model. This particular case, where such an analysis is done on precincts that are unusually homogeneous in one or more variables, is called *extreme analysis* (Lichtman, 1991; Grofman, et. al., 1994). Lichtman supplemented his ecological regressions with extreme analyses of Miami-Dade, Duval, and Palm Beach County precincts that were 90 percent or more black or non-black. Because the race variable is essentially homogeneous in these areas, no ecological inferences were necessary with respect to other variables, so these provide an independent check of his models. Analyses like these seldom duplicate the results of the model they're testing, but if it's on solid ground in other respects they should be close.

Lichtman made several model runs under varying conditions testing ballot spoilage response to different variables. He found statewide ballot spoilage rates of 14.4 percent and 1.6 percent for blacks and non-blacks respectively (Lichtman, 2001, Table I). Broken out by type, these were 12.0/0.6 percent black/non-black for overvotes, and 2.3/1.2 percent black/non-black for undervotes. As expected, spoilage rates were considerably higher in punch card and centrally recorded optical scan counties than in those that used precinct recorded optical scan methods. Yet even in the latter spoilage rates came in at 2.5/0.2 percent black/non-black for overvotes, 2.1/0.1 percent black/non-black for undervotes, and 5.2/0.4 percent black/non-black overall (Lichtman, 2001, Table I). For the 3 outlier counties the figures are considerably higher, reaching 23.6/5.5 percent black/non-black in the case of Duval County (all three used punch card technologies). In every case blacks were far more likely to suffer ballot spoilage than non-blacks, and overvotes were more prevalent than undervotes.

Thernstrom and Redenbaugh offered several criticisms of Lichtman's model and methods. These can be condensed to the following claims.

The Model's conclusions are invalidated by the ecological fallacy.

The "ecological fallacy" is a well known statistical principle which says states that the individual behavior of some variable cannot be predicted from larger averages. In this case, we would say that the voting behavior of any black or non-black voter cannot be predicted based on average voting trends in his or her county or precinct. According to Thernstrom and Redenbaugh, the fact that Lichtman's conclusions were based on ecological regressions of county and state level averages, we cannot draw any meaningful conclusions from them. On page 13 they state that,

> "The majority report argues that race was the dominant factor explaining whose votes counted and whose were rejected. But the method used rests on the assumption that if the proportion of spoiled ballots in a county or precinct is higher in places with a larger black population, it must be African American ballots that were disqualified. That conclusion does not necessarily follow, as statisticians have long understood. This is the problem that is termed the ecological fallacy.
>
> We have no data on the race of the individual voters. And it is impossible to develop accurate estimates about how groups of individuals vote (or misvote) on the basis of county-level or precinct-level averages."
>
> (Thernstrom & Redenbaugh, 2001)

This statement is incorrect on at least two counts. First, the analysis did not assume race as the sole factor in ballot spoilage. Variables for literacy, education level, and other socioeconomic factors were also included and tested separately to evaluate their contributions to the response. This was quite clear from Lichtman's statement of data and methods (Lichtman, 2001). Even if he had not, the characterization of this as an ecological failure is both wrong and irrelevant. The principle actually says that we cannot predict the behavior of *individuals*—in this case, the behavior and experiences of individual voters)—from larger aggregate averages. We can however, estimate the *most likely* behavior or experience of "groups of individuals" with common demographic characteristics from larger averages, particularly if independent information exists for that group that isolates the variables of interest. If Thernstrom and Redenbaugh are to be believed, it would be "impossible to develop accurate estimates" of whether young Hollywood movie stars are more likely to vote liberal, or caucasian, Idaho Panhandle farmers are more likely to vote conservative, from any sort of aggregated data. This is patent nonsense.

It's also beside the point. The USCCR never once claimed that all blacks were *individually* discriminated against. They claimed that minorities, as a *community,* were more likely to experience unintentional ballot spoilage than whites for any reason. The behavior or experience of individual minority voters has no bearing on this point. Lichtman was explicit about his use of extreme analysis in precincts that were nearly homogeneous by race as an independent check on his ecological methods. He provided details of how the method is applied, the absence of inferences in its use, and its relevance to ecological regressions (Lichtman, 2001; Lichtman, 1991; Grofman, et. al., 1994). Yet Thernstrom and Redenbaugh claim that,

> "The report ignores the fact that the county-level and precinct-level data yielded quite different results. Ballot rejection rates dropped dramatically when the precinct numbers were examined, even though comparing heavily black and heavily non-black precincts should have sharpened the difference between white and black voters, rather than diminishing it. Dr. Lichtman obscures this point by shifting from ratios to percentage point differences.
>
> Dr. Lichtman’s precinct analysis is just as vulnerable to criticism as his county-level analysis. It employs the same methods, and again ignores relevant variables that provide a better explanation of the variation in ballot spoilage rates."
>
> (Thernstrom & Redenbaugh, 2001)

Once again they misunderstand the methods and results. Extreme analysis does *not* use "the same methods" as ecological regression. The elimination of inferences involving the variable of interest alone significantly reduces the impact of ecological fallacies, which is why the method is useful as an independent robustness check. Nor is it true that comparing heavily black and heavily non-black precincts must sharpen the difference between white and black voters. Regression analyses like Lichtman's (or their own consultant's) make no statements about *causality*, they quantify correlations. Precinct level numbers would only be expected to sharpen racial disparities if the root causes were more

sharply defined at the precinct rather than the county or state level. This is not at all clear. There is considerable evidence for instance, that voting technology is a significant factor in theses trends, and in fact may even account for most of the disparities (Tomz & Van Houweling, 2003). Minorities are far more likely to be concentrated in poor areas than whites (NRC, 1989; 1990; 2001)--a fact that Thernstrom and Redenbaugh acknowledge on page 26. These areas are less likely than their wealthy counterparts to have access to state-of-the-art voting technologies and technical support. The impact of something like this would not be resolved at the precinct level. In any given precinct all voters will be using the same technology regardless of race, so a difference in spoilage rate between say, precinct recorded optical scan and punch card technologies would be unresolvable. But at the county or state level the difference would show up like searchlight on a clear night. Given the importance of this variable alone, we *expect* lower trends at the precinct level. Something would have been wrong with Lichtman's analysis if he had come up with anything else.

It's important to note that Lichtman did not perform precinct level extreme analyses to validate his county or statewide ballot spoilage rates. He did so *to determine whether his ecological regressions had properly isolated race from other variables*. If they had, we should see good agreement between his precinct level ecological and extreme analysis results. In fact, they did agree very well, and *Thernstrom and Redenbaugh's own figures demonstrate this*. On page 25 they show a table of estimated racial disparities in ballot rejection rates taken from Lichtman's precinct level ecological and extreme analyses. They made much of the fact that the *ratio* of black/non-black ballot spoilage was lower at the county level, yet there is no reason to believe they shouldn't be. The relevant information is in how well the precinct level results compare for the two analysis methods. Of the six sets of comparable values they show for each, all show agreement to within 1.5 percentage points for the two methods, and four of the six agree to within 0.3 percentage points. This is exceptional agreement.

The analysis did not adequately account for non-race related variables.

Thernstrom and Redenbaugh claim that Lichtman's analysis assumed race to be the dominant variable in ballot spoilage rates without accounting for other variables. On page 16 they state that,

> "The Commission's report assumes race had to be the decisive factor determining which voters spoiled their ballots. Indeed, its analysis suggests that the electoral system somehow worked to cancel the votes of even highly educated, politically experienced African Americans.
>
> In fact, the size of the black population (by Dr. Lichtman's own numbers) accounts for only one-quarter of the difference between counties in the rate of spoiled ballots (the correlation is .5). And Dr. Lichtman knows that we cannot make meaningful statements about the relationship between one social factor and another without controlling for or holding constant other variables that may affect the relationship we are assessing.
>
> Although Dr. Lichtman claims to have carried out a 'more refined statistical analysis,' neither the Commission's report nor his report to the Commission display evidence that he has successfully isolated the effect of race per se from that of other variables that are correlated with race: poverty, income, literacy, and the like."
>
> (Thernstrom & Redenbaugh, 2001)

We saw earlier that Lichtman's analysis did cover for a number of socioeconomic variables including literacy. Thernstrom and Redenbaugh are aware of this. In fact, they reference a table from Appendix I of Lichtman's report where this information is presented, but dismiss it all on the grounds that they had no "proof" he actually used it--in essence, calling him a liar. On page 18 we're told that,

> "Appendix I of Dr. Lichtman's report gives county level values for such variables as median income and percent living in poverty, and the reader naturally assumes that all of these were examined in his "more refined statistical analysis." Perhaps they were, but since Dr. Lichtman does not provide the actual results of the regression analyses, it is impossible to tell....
>
> The "refined statistical analysis" provided by Dr. Lichtman, we conclude after careful study, consists of nothing more than adding two measures of education (very inadequate measures, we shall argue below) and controlling for voting technology. And we have to take Dr. Lichtman's word about even those results, since he does not supply the details....
>
> The supposed refinements in Dr. Lichtman's regression analysis did not include using poverty rates as a variable, as far we can tell. Nor did they include measures of median family income, population density, proportions of first-time voters, or age structure, to name a few about which census data is readily available."
>
> (Thernstrom & Redenbaugh, 2001)

"Perhaps" they were? "....*as far as we can tell?*" The claim that Lichtman absolutely did *not* control for variables other than race is a recurring and strident theme throughout Thernstrom and Redenbaugh's dissent. Yet here we're told that it is "impossible to tell" whether he did or not. On page 19 they state that,

> "The obvious explanation for a high number of spoiled ballots among black voters is their lower literacy rate. Dr. Lichtman offers only a perfunctory and superficial discussion of the question, and fails to provide the regression results that allegedly demonstrate that literacy results were irrelevant.....
>
> Moreover, the data upon which he relies are too crude to allow meaningful conclusions. They are not broken down by race, for one thing."
>
> (Thernstrom & Redenbaugh, 2001)

Here, and throughout their dissent Thernstrom and Redenbaugh claim that Lichtman's data and results were never provided to them (a point to which we will return shortly). Yet they are presenting us with tangible and specific criticisms of his literacy data *even though they have repeatedly claimed never to have received it.* How can this be? Whether they examined it or not, Lichtman's data is easily accessible from his cited sources. These datasets are among the most thorough and specific available, and all are available online. A check of the 1990 Census data he cites for Florida education level demographics reveals that it *is* in fact broken out by race. They insist that it wasn't, but never once are we referred to this data as Lichtman cited it and shown where it is lacking.

Having read through Thernstrom and Redenbaugh's dissent dozens of times I am unable to find any specific criticism of Lichtman's analysis beyond mere assertions of inadequacy like these. Dozens of pages are devoted to discussing the importance of controlling for variables other than race. Multiple examples are provided of studies that failed due to a failure to do this. None bore any resemblance to Lichtman's analysis or the subject race and ballot spoilage. In the end, the entire argument boils down to little more than a *gut feeling* that his data and methods were flawed defended with the claim that specifics of each were never made available to them.

Which brings us to the next subject.

Lichtman refused to provide the dissenters with his data and results.

We saw earlier that in his report and testimony before the Commission, Lichtman gave detailed descriptions of his data, regression methods, and his results. Thernstrom and Redenbaugh bluntly challenge this claiming that no such information was ever provided to them. They even claim that the Commission told them it was "literally unavailable" and that every word of Lichtman's report was hearsay. On page 2 we're told that,

> "[A] request for basic data to which we--and indeed, any member of the public--were entitled was denied to us. The Commission hired Professor Allan Lichtman, an historian at American University, to examine the relationship between spoiled ballots and the race of voters. We asked for a copy of the machine-readable data that Professor Lichtman used to run his correlations and regressions. That is, we wanted his computer runs, the data that went into them, and the regression output that was produced. The Commission told us that it did not exist—that the data as he organized it for purposes of analysis was literally unavailable. Professor Lichtman, who knows that as a matter of scholarly convention such data should be shared, also declined to provide it.
>
> Even now, five weeks after our first request, we still have not received the multiple regressions and the machine-readable data that were used in them. They are the foundation upon which the Commission's report largely rests."
>
> (Thernstrom & Redenbaugh, 2001)

These are serious charges. Lichtman and the Commission majority are being accused of deliberately hiding their data and results--perhaps even fraudulently misrepresenting them. If true, this would undermine all confidence in the Commission's report. It's noteworthy that they restrict their accusations to *machine-readable* data. Lichtman's data sources were all clearly cited in his report. Thernstrom and Redenbaugh made no reference to any of these in their dissent, but it appears from this that they were aware of them. What they are asserting is that the Commission refused to supply this data and the actual regression runs in a form that would allow them to independently verified. Was this the case?

Whether the printouts they were given during Lichtman's testimony included his actual model runs is not clear. But this is irrelevant. Multiple regression methods are straightforward as are the specifics of the ecological and extreme analysis methods Lichtman used in his runs are presented in detail in his cited sources (Blaloch, 1978; Lichtman & Langbein, 1978; Lichtman, 1991; Grofman, et. al., 1994). Numerous industry-standard programs for running models like these are readily available (e.g. SHAZAM). The critical component is in the choice of variables used and the type and quality of data input to them. If this information is available, it would be straightforward to generate computer runs that would verify or refute his results and actual printouts would not be necessary.

At this point, any serious investigator would have checked Lichtman's sources to see if the data reported there wasn't available in machine readable form. Incredibly, Thernstrom and Redenbaugh appear not to have done this.

So I did. Guess what I found.

On page 24 Thernstrom and Redenbaugh cite Lichtman's precinct level ballot spoilage data for Miami-Dade, Duval, and Palm Beach Counties as among that which was never made available to them in machine readable form.

> "Dr. Lichtman devotes considerable space to a discussion of precinct-level variations of in rates of ballot spoilage for three of the Florida's largest counties. His machine-readable data was not made available to us, regrettably, despite our repeated requests for it, and neither were we provided the details of his regression analysis. We suspect that if we had been able to reanalyze Dr. Lichtman's treatment of precinct-level data, we would have found it just as problematic as his work at the county level."
>
> (Thernstrom & Redenbaugh, 2001)

In footnote 3 Lichtman cites this data as having been obtained from the web site of Bruce Hansen of the University of Wisconsin-Madison at www.ssc.wisc.edu/~bhansen/vote/data.html. A check of that web page returns precinct level data files for unrecorded votes, undervotes, overvotes, and voter registration by race for all Florida counties. All files are available in text and MS Excel spreadsheet (.xls) or Comma Separated Value (.csv) formats across the board. From here it was straightforward to download the data files and save them to their native Excel or csv formats, plain ASCII text, unicode text, .dat, or xml formats in seconds. In these formats the data is compatible with virtually all modern operating system environments including Unix (BSD, AIX, Sun OS, HP-UX), Linux, Mainframe (OS/390), Windows, and Macintosh and can be directly read by any multiple regression or numerical analysis modeling program in existence.

The xml versions can be read and analyzed by a number of web-based programming environments including Common Gateway Interface (CGI), Active Server Page (ASP), ASP.NET, and Java based web applications. It can even be analyzed in distributed program environments utilizing multiple disparate computing architectures and automated data transfer via "web services" integration environments (e.g. Vitria BusinessWare).

> Total time to locate, download, and convert all of this data into each of these formats using nothing more than Lichtman's footnotes: *Under 30 seconds*.

On pages 18 through 21 Thernstrom and Redenbaugh state that,

> "The supposed refinements in Dr. Lichtman's regression analysis did not include using poverty rates as a variable, as far we can tell. Nor did they include measures of median family income, population density, proportions of first-time voters, or age structure, to name a few about which census data is readily available. So when the report declares that the answer to the question of whether other factors could have produced the ballot is "no," it is deceptive. In fact, Dr. Lichtman has no idea what role "other factors" like poverty may have played, because he did not take them into account in his analysis.
>
> ....the commission refused--and still refuses--to provide us the machine readable data Dr. Lichtman used in his analysis....
>
> We have specifically and repeatedly asked the commission to provide us with the details of this regression analysis performed by Dr. Lichtman and the data on which it was based. But our requests have been denied."
>
> (Thernstrom & Redenbaugh, 2001)

Lichtman cites the 1990 U.S. Census for his socioeconomic data (USCB, 1990). A brief search of the American Factfinder section of the U.S. Census Bureau web site reveals two Summary Tape Files (STF 1 and STF 3) containing detailed and summary data for the 1990 U.S. Census (full URL's are included in the citation). Both are presented as searchable databases where family structure, median household income, education level, education level by race, and dozens of other socioeconomic datasets are provided for sample sets as small as Census Tracts. All requested data was returned in HTML table format from which it copied and pasted directly to MS Excel spreadsheet and/or standard text editors from which it could be saved to any of the machine readable formats listed above. All search results were accompanied by print quality PDF reports of standard errors and variances in the data returned.

A few paragraphs back we saw where Thernstrom and Redenbaugh had accused Lichtman of using literacy data, including education level attained, that was "too crude to be useful" and "not broken out by race". A check of this database for Palm Beach County Census Tract 1.01 returned education level attained, school enrollment, school enrollment vs. employment status, and even school enrollment vs. armed services status--*all broken out by race*--for a single neighborhood 2 miles by 1.5 miles in size just north of Jupiter, FL. If this is their idea of "too crude to be useful," we have to wonder what *wouldn't* be.

> Total time to locate, download, and convert all of this data into each of these formats using nothing more than Lichtman's footnotes: *Less than 10 minutes*.

Similar results were achieved for the rest of Lichtman's cited data. In every case I was able to locate, download, and convert all of it into numerous machine readable formats in minutes--in most cases I was able to do it *in under 30 seconds*. All of this data was available in July 2001 when the final revision of the dissenting statement was published. With the exception of the XML conversion capability and ASP.NET framework, so were all the tools mentioned. Other investigators had no more trouble accessing Lichtman's data than I did. Klinker accessed it immediately and was able to replicate Lichtman's results at higher correlations using larger samples of the same variables--and *his results were provided to Thernstrom and Redenbaugh prior to release of the final version of their dissent* (Klinker, 2001).

The fact of the matter is that the Commission's datasets and methods were easily available to anyone who truly wanted them, and Thernstrom and Redenbaugh were shown where to obtain it. They even received *printed handouts* of it during Lichtman's testimony before the Commission (Lichtman, 2001b). They simply didn't bother to access any of it.

Incredible as it may seem, it appears that Lichtman was accused of dishonestly suppressing his data and results simply because he didn't deliver it to them by hand personally, and instead had the nerve to expect that they would actually *read* his citations and download the data for themselves… *the way the rest of us did.*

An independent and more thorough regression analysis refuted Lichtman's models.

Having been "denied" access to the Commission's data, Thernstrom and Redenbaugh enlisted their own consultant. At their request Yale economist and Olin scholar John Lott conducted another series of regression model runs that found no correlation between race and ballot spoilage. These they claim, were better characterized and more thorough than Lichtman's.

> "Although the commission refused--and still refuses--to provide us the machine readable data Dr. Lichtman used in his analysis, we were able to assemble the necessary material for our own analysis. We were fortunate in being able to enlist the help of a first-rate economist, Dr. John Lott of the Yale Law School. Dr. Lott agreed to evaluate the work of the commission and of Dr. Lichtman, and even to gather additional data of his own to further extend the analysis....
>
> Dr. Lott ran a series of regressions, varying the specifications in an effort to replicate Dr. Lichtman's results. Using all the variables reported in Appendix I in the majority report, he was unable to find a consistent, statistically significant relationship between the share of voters who were African American and the ballot spoilage rate. He found that the coefficient on the percent of voters who were black was indeed positive, but it was statistically insignificant. The chance that the relationship was real was only 50.3 percent, just about the chance of getting tails to come up on any one coin toss and far below the 95 percent significance level commonly demanded in social science.
>
> Furthermore, when Dr. Lott analyzed the data using a specification that implied that the share of African American voters in a county was significantly related to the level of ballot spoilage, he found that it explained hardly any of the overall variance. Removing race from the equation but leaving in all the other explanatory variables only reduced the amount of ballot spoilage explained by his regression from 73.4 percent to 69.1 percent, a mere 4.3 percentage point reduction.
>
> Indeed, in none of the other specifications provided in Dr. Lott's Table 3 did taking racial information out of the analysis but leaving in other variables reduce by more than 3 percent the amount of variance in the spoiled ballot rate that is explained. *Consequently, it simply is not true that the best indicator of whether or not a particular county had a high or low rate of ballot spoilage is its racial composition."* (Their emphasis)
>
> (Thernstrom & Redenbaugh, 2001)

Lott ran a series of 8 regression models of ballot spoilage vs. race and several other socio-economic variables including a few that Lichtman had not included. His data, methods and results were presented in a report published in late June 2001 as an appendix to Thernstrom and Redenbaugh's dissent. In July he ran another 8 models that included an expanded set of data and variables. The results of these analyses were included in a revised version of Thernstrom and Redenbaugh's dissent dated July 19, 2001. It is that version that is discussed in this paper.

All 16 models had conceptual and analytical flaws severe enough to invalidate them. The variables used in them were poorly characterized. Some overlapped coverage, impairing their independence. Others that were necessary to test the dissenting claims were omitted. For instance, we saw earlier that Thernstrom and Redenbaugh attributed nearly all of Florida's year 2000 ballot spoilage to low levels of literacy among minorities and high first-time voter levels. Yet of Lott's 8 original runs *not one included any of these variables.* A literacy variable was added to models 9 through 16. Of these, only one produced a statistically significant correlation of literacy with ballot spoilage under Lott's defined standard of 0.1 (or 10 percent chance of insignificance--the conventional definition in social science fields is 0.01 to 0.05). Education level and first-time voter rates were once again, not included. Lott reports the variables used and regression coefficients obtained for all 16 of his model runs in Table 3 of his final report (Lott, 2001). The square of these regression coefficients, $\mathbf{R^2}$, is a direct measure of the degree to which the chosen variables account for ballot spoilage trends. Comparisons of $\mathbf{R^2}$ for each paired model run with and without literacy reveals that it explained a

maximum of only 2.3 percent of the results (models 1 and 9). In most cases it contributes a few tenths of a percent. Models 2 and 10 are the only pair which purported to show a negative correlation of race with ballot spoilage. In this case literacy contributes a mere 0.3 percent. Thernstrom and Redenbaugh devoted entire sections of their dissent to discussions of literacy, education, and first-time voters and accused Lichtman of not addressing these variables properly. *Yet only one of these (literacy) is even included in any of their models, and its contributions to their results are insignificant*. Overall, with the literacy variable included Lott's models yield an average $\mathbf{R^2}$ of 0.756. In other words, they explain 75.6 percent of the observed ballot spoilage. Compared to the corresponding figure of 0.25 this might seem impressive. Indeed, Thernstrom and Redenbaugh made much of this difference--it was their primary justification for claiming that Lott's models were more reliable than Lichtman's.

Once again, a closer inspection of Lott's choice of variables is revealing. Six of his models (1, 2, 7, 8, 9, 10, and 16) contained *redundant variables*. Separate "independent" variables were included that controlled for percentage of blacks among registered voters and the corresponding percentage of whites and Hispanics collectively. These groups comprised over 99 percent of Florida's year 2000 registered voters, so changes in either would be almost perfectly mirrored in the other--that is, $[\mathbf{x},\mathbf{y}] = [\mathbf{x},(1 - \mathbf{x})]$. It's not difficult to see how it can destroy the usefulness of a model. Suppose we were to conduct a study of local weather patterns using regression methods. Such a study might include barometric pressure—a strong indicator of weather change for well known thermodynamic reasons. If we were to include two variables—one using data from a standard barometer, and another from a separate barometer located next to it that was identical in every respect except that it used a *reversed* pressure scale—we could "prove" that barometric pressure was unrelated to weather change. With two "independent" variables that reflected each other perfectly our model would be well correlated, and because changes in the one are guaranteed to cancel out changes in the other it would be surprising if we found that a falling barometer was any indication of impending bad weather. This is what statisticians refer to as *multicollinearity,* and it effectively destroys the usefulness of a multiple regression model (Hanushek & Jackson, 1977; Weisberg, 1985). Thernstrom and Redenbaugh tell us that,

> "In fact, using the variables provided in the report, Dr. Lott was unable to find a consistent, statistically significant relationship between the share of voters who were African American and the ballot spoilage rate. Further, removing race from the equation, but leaving in all the other variables only reduced ballot spoilage rate explained by his regression by a trivial amount. In other words, the best indicator of whether or not a particular county had a high or low rate of ballot spoilage is not its racial composition. Other variables were more important."
>
> (Thernstrom & Redenbaugh, 2001)

Of course they were. *Lott double-dipped his racial variables and pre-arranged them to cancel out of the analysis*. It would have been surprising if he had reached any other conclusion.

Eliminating the multicollinearity from his models is straightforward--simply remove either of the redundant variables. Models 2 and 10 were the only ones in Lott's ensemble that showed negative correlations of race with ballot spoilage. Lichtman did this for these two models. The result? Both found that race alone explains at least 11 percent of all ballot spoilage at statistically significant levels far better than the 0.01 to 0.05 standard of social science convention and with a 79 percent correlation--better than the originals (Lichtman, 2001b). Lott's remaining models removed the multicollinearity of models 2 and 10 only to reintroduce others. Variables for use of optical scan voting technology and optical scanning by precinct are both present in several of them despite the fact that they overlap considerably (the latter will by definition be a subset of the former).

Lott's results contained a number of red flags that ought to have alerted him to these problems. Models 3 and 11, which have the redundant racial variables removed, *do* show statistically significant impacts or race on ballot spoilage. Other models failed to yield statistically significant results for variables tracking County Supervisor party affiliation and/or race. More importantly, those that tracked the race of the County Supervisor had problems with their data. This is particularly telling because Thernstrom and Redenbaugh made much of ballot spoilage being higher where there was a Democrat County Supervisor, and even higher where he/she was black.

> "Dr. Lott provides a fuller examination of the possible impact of having a Democratic supervisor of elections in his Table 3, and adds another related variable—whether or not the supervisor was African American. Having Democratic officials in charge increases the ballot spoilage rate substantially, and the effect is stronger still when that official is African American. (All African American supervisors of elections are Democrats.) Lott estimates that a 1 percent increase in the black share of voters in counties with Democratic election officials increases the number of spoiled ballots by a striking 135 percent."
>
> (Thernstrom & Redenbaugh, 2001)

The variable they refer to was added to models 14 and 15 in Lott's suite. This variable tracked percentage of registered voters in counties with an African American supervisor, and assigned a zero value to all that did not. An examination of Lott's dataset for this variable reveals that it was based on county records from 2001 immediately prior to his report--*not the fall 2000 election*. At the time of the dissent publication four of the counties he analyzed had African American County Supervisors. Only one of these did during the election--St. Lucie County, which had a ballot rejection rate of only 0.3 percent. Models 4 and 12 included variables for whether the County Supervisor was Democratic, Republican, and additionally, whether he/she was also black. Lott ran a total of seven models that tracked one or more of these variables. All yielded results that were statistically insignificant at Lott's declared standards (Lott, 2001). The problems don't end here. Lott goes on to draw conclusions from this data based on arithmetically incorrect assumptions. On page 5 of his report we're told that,

> "[The] largest effect between the share of voters who are African-American and ballot spoilage rates exists when African-Americans are county election supervisors and a net positive effect also occurs when Democrats are county election supervisors. Because the point estimates need to be added together in evaluating the impact of the percent of voters who are African-American in counties with African-American county election supervisors, the net effect in column 6 for the percent of voters who are African-American and that variable interacted with whether the county election supervisor is African-American is just short of being statistically significant at the 10 percent level (p=.1088). The estimates imply that each one percent increase in the share of voters by African-Americans produces 135 percent more non-voted ballots when the county election supervisors are African-American than when they are of some other race."
>
> (Lott, 2001)

Lott arrives at these conclusions by adding coefficients for the difference between black and non-black ballot spoilage in counties with black supervisors to the corresponding figures for all counties. But these figures are not additive. The former are derived only for counties with black supervisors, which is a *subset* of the latter figure.

Citing Lott's figure of 135 percent, Thernstrom and Redenbaugh tell us that Democratic County Supervisors had more to do with ballot spoilage than race. The astute reader will also notice that they've misquoted him. His 135 percent figure referred to *African-American* County Supervisors, *not* Democrats. They also steered carefully around his admission--*clearly stated in the previous sentence*--that these results fall short of statistical significance at the 10 percent level, which is quite lenient by accepted social science standards. Either way, the argument regarding race and/or political affiliation of County Supervisors is based entire on statistically insignificant results and a key variable for which there were only 4 data points, 3 of which were flat-out incorrect.

Lichtman also ran a set of revised regression models which were presented as Appendix X to the USCCR Report in August 2001 (Lichtman, 2001b). These runs contained variables controlling for voting technology, poverty, literacy, education level, and voting technology, without multicollinearity. Larger datasets for all variables were used. Additional precinct level data for Broward, Escambia, and Gadsden Counties were included expanding the range of his extreme analyses in demographic and voting technology variables (Lott did not include extreme analysis or any other independent means of checking his own runs). For blacks, Lichtman's original runs yielded statewide ballot spoilage rates of 14.4 percent that were attributable to race alone (Lichtman, 2001). The corresponding precinct level averages were 15 percent. In his revised runs these figures were 14.3 and 14 percent respectively (Lichtman, 2001b). The agreement with the original analysis is striking as is that between the ecological (county level) and extreme (precinct)

methods. Furthermore, these runs explained 86.6 percent of the observed ballot spoilage (R^2 = 0.866) as compared to Lott's corresponding figure of 74 percent, and without the variable redundancy and dataset problems that plagued his work. No significant impact on ballot spoilage was found for any socioeconomic variables including literacy.

Another analysis was run independently by Philip Klinker of Hamilton College, NY that expanded on Lichtman and Lott's analyses using an even broader range of variables and datasets. Klinker used data from all of Lichtman's cited sources, which as noted earlier, he was able to obtain in machine readable form in minutes from Lichtman's citations alone, contrary to Thernstrom and Redenbaugh's insistence that it was not available. He also used additional literacy data from the Florida Literacy Coalition (FLC, 1992). Like Lichtman's literacy data, it too was based on the 1992 National Adult Literacy Survey but also included data by *congressional district and municipality*. On page 20 of their dissent Thernstrom and Redenbaugh insisted that national literacy studies "provide no data on Florida specifically." Yet Klinker had no more problem finding this data than I did. Using his cited web source, I located and downloaded it in machine readable form within seconds. Once again we have to wonder how serious Thernstrom and Redenbaugh really were about obtaining the data they insisted were not made available to them. Other variables were included for,

- Voters per precinct (crowded precincts may increase ballot spoilage due to increased wait times and less available voter assistance)
- Increases in voter registration prior to November 2000 (Thernstrom and Redenbaugh claimed that first-time voters were a crucial factor in ballot spoilage and castigated Lichtman for not addressing it, *even though Lott neglected it as well*)
- County crime rates
- Percent of elderly population
- Percent of population under 25
- Party of the county election supervisor (for which care was taken to insure the accuracy and quantity of data that were required for statistically significant results)
- Percent of population with less than a high school diploma
- Percent of population with at least some college education (not multicollinear with the previous variable)
- Percent of population in rural areas
- Percent of population that is English speaking and mono-lingual
- County population density
- Increase in percent of registered voters who are black from 1996 to 2000
- Percent of blacks with less than 9th grade education
- Percent of blacks with less than a high school diploma
- Percent of blacks with at least some college education

The latter three variables would be expected to show some overlap, but Klinker used them across his various runs in a manner that avoided multicollinearity. In all, Klinker used all of Lichtman's original data, and supplemented it from other sources and included more variables than he or Lott. Klinker found that 87.5 percent of all ballot spoilage could be explained by race, voting technology, precinct density and voter turnout at statistical significance levels below 0.1 percent. Of these, race and voting technology carried the bulk of the impact. This confirms Lichtman's analyses at a correlation level 15 percent higher than that achieved by Lott, and at much higher levels of statistical significance (Klinker, 2001).

Klinker ran one other test not done by Lichtman or Lott which was particularly revealing. His first model runs found that ballot spoilage was likely to be highest in predominately *Republican* counties with comparatively high percentages of black voters. He pointed out that racial disenfranchisement against blacks that was intentional at any significant level would be least likely to occur in strongly Democratic counties, as they have the least to gain from it. Likewise, we would

expect a low incentive for disenfranchising activity in heavily Republican counties with small black populations, as such activity would stand out more starkly if found out (it's easier to hide in a crowd than in a living room). But there *would* be incentive for disenfranchisement of blacks--or at least a low level of concern for preventing it--in heavily Republican counties that had relatively large black populations that carried a potential threat to the majority constituency. To test this hypothesis, Klinker ran a final model that included an interactive variable for the percent of registered black voters multiplied by the winning vote margin Bush. After all other variables had been controlled for, *this variable ended up explaining over 92 percent of all ballot spoilage.* This does not prove an intentional Republican conspiracy against black voters in these counties, but it's entirely consistent with at least some level of intentionally disenfranchising activity. Even if there were none, this is exactly what we would expect to find in heavily non-black Republican areas if there were a general lack of concern with ballot spoilage among the black community where they comprise a sizeable part of the electorate, but lack the local political power to ensure that their ballots are counted accurately and fairly.

Rhetoric about "the myth of a nefarious plot" aside, disenfranchisement through carelessness and apathy is still disenfranchisement. If the sanctity of ever*y* vote truly was a top priority (as was repeatedly claimed by Harris, the FDE, and Jeb Bush) it's difficult to see how 92 percent of all ballot spoilage among blacks could be explained simply by identifying relatively large black minorities in predominately Republican and non-black areas.

Lichtman was unsuitable as the Commission's sole consultant

Turning their attention to what they call "procedural irregularities" in the Commission's investigation, Thernstrom and Redenbaugh reach a disturbing low when they escalate from attempts to debunk Lichtman's work to outright character assassination. They accused Lichtman of being highly partisan and unqualified to act as a consultant to the USCCR. Throughout their dissent he is portrayed as professionally questionable, and at several points they even hint that he was dishonest and/or negligent. By contrast they refer to their own consultant, John Lott, as "a first-rate economist" who is portrayed as completely non-partisan and having an exemplary professional record. On page 54 they claim that,

> "The choice of Dr. Lichtman to carry out this work is problematic. When he appeared at the June 8, 2001, meeting of the commission to present his findings, he took pains to present himself as a scholar above party, who had 'worked for Democratic interests... and for Republican interests.' At the time, the American University web site identified him as a 'consultant to Vice-President Albert Gore, Jr.' His partisan commitment was evident in his media appearances throughout the campaign and the period of post-election uncertainty.
>
> Moreover, although Dr. Lichtman claimed (at the June 8 Commission meeting) that he began his study of possible racial bias in the Florida election with an open—even 'skeptical'—mind, in fact, evidence suggests the contrary. As early as January 11, at the very beginning of his investigation and prior to conducting any detailed statistical analysis of his own, Dr. Lichtman stated publicly that he was already convinced, on the basis of what he had read in the New York Times, that in Florida 'minorities perhaps can go to the polls unimpeded, but their votes are less likely to count because of the disparate technology than are the votes of whites.' He concluded: 'In my view, that is a classic violation of the Voting Rights Act.' Long before he examined any of the statistics, Dr. Lichtman had already concluded that Florida had disenfranchised minority voters and violated the Voting Rights Act.
>
> A social scientist with strong partisan leanings might conceivably still conduct an evenhanded, impartial analysis of a body of data. Unfortunately, that is not the case in the present instance."
>
> (Thernstrom & Redenbaugh, 2001)

It's surprising that respected members of the USCCR would stoop to this kind of ad-hominem unprovoked. The fallacies in such an argument (not to mention the lack of professionalism) speak for themselves and would require no further comment but for one thing--in this case they reveal much about the one-sided nature of Thernstrom and Redenbaugh's dissent.

Lichtman they argue, was unsuitable for the Commission's study because of his "strong partisan leanings". Their proof?

- He "consulted" for Al Gore and,
- He made statements about racial bias in technology driven ballot spoilage that they consider partisan in some "media appearances" (statements that as we've seen, were *correct*).

From this alone they conclude that his analyses were not "evenhanded and impartial". But of course,

They carefully avoided any similar discussions about their own consultant.

The severity of the charges and the assumed moral high ground from which they were made merit a closer look. At the time of the USCCR report John R. Lott held a research post at Yale. From 1998-99 he was the John M. Olin Fellow at the University of Chicago Law School and a strong advocate the of Chicago School theories on law and economics, which occupied much of his research energy. The "Olin" in this title is a reference to the Olin Foundation, which was started in 1953 by chemical industry magnate John M. Olin. Since the early 80's it has been one of America's largest and wealthiest far-Right foundations. Over the last 50 years they have funneled millions into a wide range of lobbies and think tanks representing ultra-conservative special interests including polluting and extraction industries, antienvironmental front groups, pro-gun groups, and more. They have consistently denied any ties with the Olin Corporation, but tax and stock sales records reveal many millions in direct financial support and Olin stock holdings. Throughout its history the foundation's board of directors has included numerous Olin executives, and has refused to provide full disclosures of its holdings (VPC, 1999). Today Lott is a resident scholar at the American Enterprise Institute which is one of America's top far-Right think tanks and a key player in many of the same lobbies the Olin foundation supports. There he devotes his work to issues various issues involving econometrics, law and economics, public choice theory (including elections), microeconomics, and environmental regulation. But the issue that has defined his career more than any other is gun-control which he vociferously opposes (not surprisingly, the Olin Corporation also happens to own Winchester firearms).

Turning to Lott's publishing history, the story gets deeper. In addition to his ultra-conservative political and financial ties, *he has a long and well documented history of flawed multiple regression analyses and unethical academic conduct*. In 1997 Lott and co-author David Mustard published a controversial study in which they claimed to have proven that in any given population a one percent increase in gun ownership results in a 3.3% *decrease* in homicide rates (Lott & Mustard, 1997). Their conclusions were based on a series of multiple regressions analyses of "shall issue" concealed weapons laws and crime rates that were almost identical in method and construct as those he did for Thernstrom and Redenbaugh. The study was quickly embraced by the pro-gun lobby as irrefutable proof that guns reduce crime. The NRA and numerous politicians in Congress and across the nation began citing Lott and Mustard's work in support of various efforts to block firearms regulations of all types. Emboldened by this response, in 1998 Lott released the first edition of his book *More Guns, Less Crime* (Lott, 1998) which was soon followed by a second edition (Lott, 2000). The book has sold over 100,000 copies and has become quite literally, the “scientific” Bible of the pro-gun lobby.

It wasn't long before numerous problems were found in Lott and Mustard's model including multicollinearity, flawed data, questionable data manipulations--problems that have an eerie similarity to the models Lott did for Thernstrom and Redenbaugh. Within one year it had been shown that simply removing Florida from their dataset made their results vanish (Black & Nagin, 1998). Examination of their national dataset at the county and municipality level revealed numerous creative manipulations of crime rates, and in some cases omission of data that was both available and crucial to demonstrating their claims (Lambert, 2005). One of the more blatant examples was their treatment rural crime rates. Lott and Mustard ran their regressions with logarithmic data for crime rates. The homicide rate **h** for instance, can be expressed in terms of another "dummy" variable **x** as,

$$\mathbf{h} = \mathbf{e}^{\mathbf{x}}$$

This technique is commonly used in regression analyses because it lends itself to regression methods better than the raw data. But this technique cannot always be used. Wherever **h** has a zero value it will yield an **x** of minus-infinity

making model calculations impossible. A significant portion of Lott and Mustard's datasets from rural areas had zero homicide rates. So how was this problem avoided? *By assigning murder rates to regions that had none*. The assumed rates were small (on the order of 0.1 murders per 100,000 population) but numerous enough to significantly impact their results (Goertzel, 2002). They also used variable inputs that led to demonstrably false conclusions, not the least of which was that crime rates are strongly correlated with the population of African American women but hardly at all with African American men (Wikipedia, 2005e). Numerous other problems turned up with Lott and Mustard's work and with More Guns, Less Crime. In the years since few of Lott's conclusions have been independently reproducible and most have fallen apart as more data became available (Ayres & Donohue, 2003). It was even discovered that there were basic programming code errors in his models. Many of Lott and Mustard's variables Once again, when these were corrected all of his results vanished (Ayres & Donohue, 2003b; Lambert, 2005b). Since then coding errors have also turned up in other analyses of Lott's, including some used to support claims made in his later book *The Bias Against Guns* (Lott, 2003). After repeated and strident denials, Lott eventually acknowledged the coding errors but claimed they were minor and did not affect his results. But when he provided a "corrected" version of the data to prove this, it had the same errors that his original dataset had. When these were corrected, once again, his results vanished (Mooney, 2003).

To most social scientists problems like these would be an unmistakable red flag that would send them back to their data and models to make corrections. But not Lott. From the beginning he has vociferously denied any problems with his work, even to the point of slandering some of his critics (Wikipedia, 2005e, Lambert, 2005c). When confronted with outright errors in his published works and numerous op-ed pieces he has blamed them on editing errors by the media or denied them outright. He has been caught denying errors in his online data after he secretly replaced the erroneous data with corrected versions at his web site (this sort of thing can be determined from system level time-stamps on the data files themselves). More seriously, *he has been caught fabricating data to support his arguments*. In the 1998 edition of *More Guns, Less Crime* Lott argued that according to his data only 2 percent of all incidents involving defensive use of a gun necessitated a firing of the weapon, either at the perpetrator or as a warning. The claim was tangential to Lott's larger case and only one sentence in the 1998 edition mentions it. But he has since referred to this study result numerous times in print, in public, and in sworn testimony before legislative bodies (Wikipedia, 2005e). The statement raised many eyebrows however because it flatly contradicts a large body of evidence, and in addition to his own data Lott had cited "national surveys" as supporting it--surveys that he did not directly cite and no one else could find (published studies have generally obtained figures of at least 20 percent or more). Furthermore, even if the survey was real, the sample size Lott reported (25 subjects) was too small by at least a factor of ten to resolve the 2 percent result he quotes (which would have required that half a subject would have fired a gun in a crime incident). When confronted with this fact, Lott claimed to have "weighted" his results (method not available of course), but this would have exacerbated the margin of error even further and made the result *less*, not more statistically significant. All of this should have been obvious to an experienced econometric researcher.

When pressed to make the data supporting this conclusion available, or at least to cite the national surveys he referred to, Lott became evasive. Eventually, it was discovered that *Lott's result were based entirely on a survey he had conducted himself for which no data was available*. According to Lott, the data, methodology, analysis work, and results were all lost in a computer crash. The work had been done by volunteer students that Lott himself had recruited and paid in cash out of his own pocket. No cancelled checks or records of any kind existed, nor was there any record of his having claimed the expense as a tax write-off. According to social science protocol and law, the institutional Committee on Human Experimentation was required to review the study. This was never done. Despite a fair amount of national news media coverage, not one person ever came forward claiming to have been either a paid student volunteer or a subject in the study (Wikipedia, 2005e). Lott later claimed to have located some of the students and at least one of the survey subjects. A check of his source revealed that these students had only indicated that they *might* have worked on a project for him, but none to suggest that it was a survey. The subject he identified, former city of Minneapolis assistant prosecutor David Gross, was active in defending that city's concealed carry law, devoting four years and $1M in lost income towards getting it passed (Lambert, 2005b). In the absence of any records on Lott's part, it is far too coincidental that someone this important to the Pro-gun lobby he represents would've been chosen in a random national survey. Lott has also been caught massaging his data on other occasions as well-both to obtain results he wanted, and to "refute" criticisms that data used to support his conclusions had been flawed (Mooney, 2003; Lambert, 2004).

Formal standards for survey-based research are well known within the social science research community, as is the fact that they are required not only for publication, but for citation as well (AAPOR, 2005). As a social science

researcher Lott would certainly have known that any study documented this poorly would have unusable in published work. Even if he did legitimately lose this documentation, he would have known that in its absence he is not entitled it as proof of his claims. Either the data and results never existed, or he was knowingly in violation of the law and nearly every social science professional and ethical protocol in existence. Over the next two years Lott changed his story several times. At one time or another he cited a myriad of sources for the data, including some that were dated *after* 1998 when he originally made the claim. The second edition of *More Guns, Less Crime* revised the "national surveys" reference to "a national survey that I conducted" (Lott, 2000). In 2002 he agreed to redo the study, and document everything properly. This time he reported having "proven" an 8 percent rate which when weighted demographically reduced to 5 percent. Once again, other researchers were unable to reproduce this result using the methods he reported. Further checks revealed that these results were also statistically insignificant and his weighting method had been done incorrectly--it actually *increased* his 8 percent figure to 9 percent. To this day, Lott and numerous far-Right forums nationwide are still citing this figure as a "proven" result (Wikipedia, 2005e; Lambert, 2005b).

In January 2003 Lott's reputation suffered a blow from which he has never fully recovered. Naturally, ever since the publication of *More Guns, Less Crime* Lott has enjoyed a huge online following. One such commentator named Mary Rosh was a regular at various pro-gun and far-Right web sites and usenet groups and acquired a fair amount of online prominence as a Lott pit bull. Rosh, who claimed to be a former student of Lott's at Stanford and Wharton was a regular at the extreme-Right web site Freerepublic.com. In 2001 she branched out to the larger Usenet community. A tireless defender of Lott's research, she hammered his critics, showered him with praise, and even penned a number of five-star reviews of his books at Amazon.com and the Barnes and Noble web site along with excoriating reviews of works critical of him. One of these which was written in the late 90's when Lott was at the U. of Chicago referred to him as "professor Lott." In another Usenet post she stated that while Lott was at Wharton he even held a *chaired* professorship (Lambert, 2005d). In fact, Lott has never held a full professorship anywhere and despite his prolific publishing record he has never passed a tenure review--in no small part because of the chronically flawed research and ethical questions that have dogged his professional career. He was an Olin fellow at the U. of Chicago and an assistant professor at Wharton. Rosh often praised Lott as an academic role model and waxed eloquent about how objective and non-partisan he was. According to her,

> "You wouldn't know that he was a 'right-wing' ideologue from the class. He argued both sides of different issues. He tore apart empirical work whether you thought that it might be right-wing or left-wing. At least at Wharton for graduate school or Stanford for undergraduate, Lott taught me more about analysis than any other professor that I had and I was not alone. There were a group of us students who would try to take any class that he taught. Lott finally had to tell us that it was best for us to try and take classes from other professors more to be exposed to other ways of teaching graduate material."
>
> (Wikipedia, 2005e)

She called other Lott supporters to band together in his defense. In one posting at the Far-Right web site http://www.freerepublic.com she called upon that site's community to download one of his papers as often as possible thereby adding to its scholarly credibility by boosting its ratings in the download counters at the Social Science Research Network.

> "The papers that get downloaded the most get noticed the most by other academics. *It is very important that people download this paper as frequently as possible*." (Her emphasis)
>
> (Wikipedia, 2005e)

Rosh was even mentioned on an episode of CNN Crossfire (Wikipedia, 2005e).

But then, on New Year's Day 2003 Julian Sanchez of the Cato Institute noticed something interesting. An email he received from Lott had come from an IP address of 38.118.73.78, which happened to be identical to one used by Mary Rosh. The address had been issued by Comcast to a private account that resolved to the American Enterprise Institute where Lott was, and still is a research fellow. As a cable provider, Comcast issues unique IP addresses to their home clients, so this address uniquely identified the computer the email had come from. Further checks revealed a consistent pattern of Mary Rosh postings that also overlapped static IP addresses or dynamically assigned IP address ranges associated either with Lott's residence or his concurrent place of work (Sanchez, 2003; Lambert, 2005d).

Sanchez had discovered that *Mary Rosh was none other than John Lott himself posting under an assumed identity!*

He posted this discovery at his own web log site and the news spread like wildfire. Pro-gun forums angrily denied the claim accusing Sanchez and others of a politically motivated attempt to frame Lott. The argument never gained momentum however because the Cato Institute is *Libertarian* and staunchly pro-gun. Furthermore, the story had also been broken in the media by the Far-Right Washington Times which is owned by Rev. Sun Myung Moon whose son Justin owns a firearms manufacturing company (Kahr Arms). This dismantled any semblance of a conflict of interest. One month later Lott confessed to having invented Mary Rosh. "I probably shouldn't have done it--I know I shouldn't have done it," he said, "but it's hard to think of any big advantage I got except to be able to comment fictitiously" (Morin, 2003). The American Enterprise Institute made no move to investigate Lott's actions or even to reprimand him, and to this day they have declined comment on the incident (Mooney, 2003; Wallace-Wells, 2003). As of this writing a search of the AEI web site www.aei.org using their site search engine reveals no mention of Mary Rosh.

Ordinarily, this would not be an issue. Pseudonyms are a common and generally accepted way to preserve anonymity in online communities. Lott however, had created *a wholly separate identity* who purported to be someone other than himself--in web parlance, a *sock puppet.* In Lott's case the infraction was more severe because his sock puppet purported to be an academic with a background similar to his who could vouch for his character and provide independent scholarly support for his work. To make matters worse, he repeatedly denied any involvement with Usenet discussions of his work even as Mary Rosh was rising to prominence within the Usenet community. In at least one instance he denied having any knowledge of a controversy in which she had accused a newspaper of fraudulently editing a Lott op-ed piece that contained erroneous data (Lambert, 2005e). Not only was this deceptive, it was a severe violation of scholarly professional ethics. The scientific community was shocked. In an April 2003 editorial in the journal *Science* editor-in-chief Donald Kennedy summarized the issue as follows,

> "What [Lott] did was to construct a false identity for a scholar, whom he then deployed in repeated support of his positions and in repeated attacks on his opponents. In most circles, this goes down as fraud."
>
> (Kennedy, 2003)

Though acknowledging his error, Lott argued that he had created Rosh with justifiable intentions. Rosh, he said, allowed him to protect his wife from threatening phone calls. She allowed him to present his views from a different perspective (Rosh professed to be a 114 lb wisp of a woman who apart from a 357 magnum would be helpless before a 200 lb attacker). He even argued that she was part of a long tradition of authors who used fictitious spokespersons in rhetoric, including Benjamin Franklin whom he called "a master of this art" (Lambert, 2005e). But these, and every other defense he gave side-stepped the fact that Mary Rosh was not merely a mouthpiece for Lott's claims but someone who claimed to be an independent character witness and who tried to boost his scholarly credibility, even to the point of encouraging others to spike download ratings of his papers.

The saga didn't end here. Soon after Lott's confession further investigations by other bloggers revealed that ever since 1998 Lott had maintained a small army of sock puppets and in fact, *he had resumed an online presence with one of them the very day after he publicly confessed to Mary Rosh*. Among his online identities are "washingtonian2", "economist123", "Tom H", "Bob H", "Kevin H", "Sam", and "Gregg." All presented themselves as independent identities purporting to be character witnesses and/or scholarly boosters for Lott's work (Lambert, 2005d). Washingtonian2 took over Mary Rosh's presence at Freerepublic.com after she moved to Usenet. Several contributed glowing book reviews of Lott's works at Amazon.com and Barnes and Noble online. At times two or three would simultaneously contribute to the same web forums. Tim Lambert of the University of New South Wales in Sydney Australia maintains an online forum called Deltoid (http://scienceblogs.com/deltoid/) that examines many science and policy issues. Lambert, who is legendary in the "blogosphere" for his eviscerations of Lott's research and conduct, draws much attention from both sides of the gun control debate around the world. As recently as September 2004 I had two extended discussions with Lott supporters there only to discover later that *I had actually been arguing with Lott himself* speaking through "Bob H" and "Kevin H" (Lambert, 2005e). In both cases his comments were restricted entirely to personal attacks on me and other visitors at the site or peripheral details unrelated to any of his claims. Not once did he address the substance of my criticisms or anyone else's.

- Fraudulent manipulation of datasets.
- Citations to non-existent data.
- Using numerous online sock puppets to boost his standing in scholarly citation databases.
- A chronic history of flawed multiple regression studies exactly like the one he was contracted to do for the USCCR dissenters.
- A long-standing record of vociferous refusal to admit any errors in his work even after they have been demonstrated in peer-reviewed research.

According to Thernstrom and Redenbaugh, none of this is the least bit troubling in a consultant. But a few "media appearances" and some consulting work for a Democrat politician somehow proves that another scholar with no history of similar professional and ethical failures had a "partisan commitment" making him "unsuitable" as a consultant.

The fact that anyone would even attempt a character assassination on evidence like this is almost beyond belief.

In fairness to Thernstrom and Redenbaugh Lott's most serious ethical and professional lapses (including his fraudulent survey data and sock puppet incidents) were not revealed until after their dissent was published. But even so, Lott was a well-known and highly controversial figure long before the year 2000 election. The flaws in his research were well documented in the peer-reviewed literature and numerous public forums as was his fiery personality and longstanding financial and professional ties to the far-Right. It couldn't possibly have escaped their attention that he had a highly partisan background (including most of his funding base) and a record for questionable research in the very field for which they had contracted him. To this day their dissent, and Lott's contributions to it, are still being cited religiously by the Far-Right even though his professional and ethical lapses have long since been exposed (Kirsanow, 2003; 2003b; Kerry, 2004). Even if Thernstrom and Redenbaugh's had been justified in their accusations against Lichtman, it was inexcusably foolish to attempt an argument like this when their *own* consultant's track record was so badly marred by professional and ethical lapses.

Some spoiled ballots were deliberate abstentions

Thernstrom and Redenbaugh pointed out that there were likely to be some intentional abstentions. On page 10 they state that,

> "The report talks about voters likely to have their ballots spoiled; in fact, the problem was undervotes and overvotes, some of which were deliberate (the undervotes, particularly)."
>
> (Thernstrom & Redenbaugh, 2001)

This is of course true and they were correct in pointing out that the USCCR should have addressed the point in more detail. They also point out, correctly, that exit polls, on which most estimates of intentional abstention are based, can be quite unreliable. But none of this is relevant to their case unless they can demonstrate that apart from machine errors intentional abstentions account for most "spoiled" ballots. This was not done. In Miami-Dade County roughly one percent of all ballots cast indicated choices for other offices, but none for president (Posner, 2001). Citing these results they claim that up to one percent of Florida voters may have abstained intentionally from a presidential vote which would account for 56 percent of all undervoted ballots.

Once again an atypical county was used to draw conclusions regarding the entire state. It has already been shown that Miami-Dade was a statistical outlier for ballot spoilage and had racial demographics that were unrepresentative of the rest of the state (which can and does impact intentional abstentions). It is also far from clear that ballot roll-off (how the presence of candidates for other offices on a ballot impacts the residual vote rate of an election) is an indicator of intentional abstention. Thernstrom and Redenbaugh simply assume that it does and extrapolate Miami-Dade figures to the entire state. Intentional abstention estimates for all of Florida or for the entire nation would have been far more relevant. The latter typically run around 0.5 percent of all ballots cast for presidential contests (Ansolabehere & Stewart,

2005). Given unusually high voter turnout rates (due to unprecedented grassroots efforts), Florida's intentional abstention rate was likely to have been *lower* than average if anything, so even this figure is likely to have been high. Even if we grant them a one percent intentional abstention rate, we're still left with left with over 120,000 spoiled ballots that were not intentional--*more than 505 times the size of Bush's certified victory margin, and 630 times the size of his actual margin per dictum of the Florida and U.S. Supreme Courts.* Thernstrom and Redenbaugh may consider this to be insignificant, but with the victory margin as small as it was it's unlikely that they or anyone quoting them would have felt the same if they had been on the receiving end.

Apart from machine related errors, unintentional undervotes and overvotes are due entirely to voter error alone and give no indication whatsoever of the voter's intended choice.

With at least some spoiled ballots representing intentional abstentions, Thernstrom and Redenbaugh go on to claim that,

> "The rest were due to voter error. Or machine error, which is random, and thus cannot 'disenfranchise' any population group."
>
> (Thernstrom & Redenbaugh, 2001)

Citing Lichtman (2001) they point out that some 180,000 ballots, 2.9 percent of the total, did not "indicate a valid choice for a presidential candidate". Of these, 60 percent were overvotes which they described as "[indicating] more than one choice for president." Another 35 percent were undervotes which were described as "[lacking] any clear indication of which presidential candidate the voter preferred." From this they conclude that,

> "The chief problem in Florida was voters who cast a ballot for more than one candidate for same office, and the second most common problem was voters who registered no choice at all. Ballots were 'rejected,' in short, because it was impossible to determine which candidate – if any – voters meant to choose for president."
>
> (Thernstrom & Redenbaugh, 2001)

To demonstrate this Thernstrom and Redenbaugh must show that virtually all counted votes were "clean"--that is, without "disturbances" such as chads, dimples, erasures and the like, and that all ballots with "unclean" disturbances like these were solely the result of voter carelessness and in every case left no discernable evidence of voter intent. They must also show that polling place factors did not in any way contribute to voter confusion.

This is a tall order, and they did not rise to meet it. The figures they gave for undervote/overvote totals and percentages are close to the mark. But their attempts to pass all of these ballots as unreadable are outright nonsense. Many ballots will be unreadable of course—perhaps even a majority. But as we saw earlier there are thousands of exceptions. Undervotes fell into many categories ranging from those that gave no indication of a choice to those with chads, dimples, and other disturbances rendering them unreadable to a machine, but with clear signs of the voter's intended choice. Likewise, overvotes range from ballots with multiple clean marks for more than one candidate, to those with erasure marks, cross-outs of one choice accompanied by selection of another candidate, and in some cases even the word "mistake" clearly written on the face of the ballot with an arrow pointing to one marked candidate and an unambiguous selection for another one. Thernstrom and Redenbaugh insist that it's "impossible" to determine which candidate these voters intended. We have to wonder what part of the word *mistake*, accompanied by a big black arrow and a clear selection of another candidate, is so difficult to decipher.

We also have to wonder how sincere their denials are. Thernstrom and Redenbaugh had to have known that many spoiled ballots had disturbances that gave clear indications of a preferred candidate. On page 12 they tell us that,

> "Some of the undervotes under discussion here must been recorded by people who could not settle on a choice for president but who turned up to register their preferences in other contests. We know from the Miami Herald's inspection of the 61,111 undervoted ballots in the state that almost half – 46.2 percent – had no markings at all for president."
>
> (Thernstrom & Redenbaugh, 2001)

Essentially this is an acknowledgement that 53.8 percent *did* have such marks. It's not reasonable to conclude that none of these indicate an attempt by the voter to make a selection and that no evidence whatsoever of the intended selection remained. If they were aware of this they did not indicate it (a PDF search of the document reveals no instances of the words "chad", "dimple", "erase", or "erasure"). The whole issue was simply dismissed out of hand.

It's significant that Thernstrom and Redenbaugh refer to 61,111 Florida 2000 spoiled ballots as undervoted. It follows that the remainder—over 110,000—were overvoted. Thernstrom and Redenbaugh made much of the fact that many spoiled ballots were likely to have been intentional abstentions. Realistically, this will only apply to *undervotes*—ballots where no preferred choice is indicated. Here, they are admitting that the majority were overvoted indicating that some attempt was made to select a candidate which was then followed by other attempts. This almost always indicates confusion or an attempt to correct an unintended error. Lichtman found a significant racial bias in these that could not be accounted for by other variables (Lichtman, 2001). This presents considerable problems for any attempt to dismiss all, or even most racially biased ballot spoilage as intentional. Thernstrom and Redenbaugh seem aware of this and made a valiant attempt at bolstering the argument. On pages 11 and 12 they tell us that,

> "Some of these overvotes and undervotes, it should be noted, may have been the result of deliberate choices on the part of voters. In fact, Chair Mary Frances Berry remarked at the hearing in Miami that she herself has sometimes 'over-voted deliberately.'
>
> Chair Berry cannot be the only voter in the United States to make such a choice. According to the exhaustive investigation of the ballots conducted by the Miami Herald, 10 percent of all the overvotes in the state showed votes for both Bush and Gore. Some of these voters, it is reasonable to assume, were attempting to convey the message that either candidate would be equally acceptable. Some voters in Citrus County put giant X's through the names of all presidential candidates, perhaps to indicate “none of the above."
>
> (Thernstrom & Redenbaugh, 2001)

In the absence of anything showing context (yet again no citation was provided) it's almost impossible to gage Chair Berry's remark or even whether she was properly quoted. Either way, every word of this is pure speculation based on a weak premise. As noted earlier, the large majority of those who do not wish to vote for a presidential candidate will do precisely that—not vote for one. The claim that ballots showing votes for Bush and Gore, or X's through all candidates is somehow an attempt at *not* voting for a candidate is unconvincing and without reliable estimates for how many overvotes even fit this category, it's useless.

On the other hand, there is *considerable* evidence that overvotes were overwhelmingly due to ballot confusion and other usability problems. Exit polls and post-election testimony by voters support this. We've already seen numerous independent statistical analyses using mature analysis methods. All show large, statistically significant biases in ballots that can be explained only by ballot confusion (Brady, 2000; Orzag and Orzag, 2000; 2000b; 2000c; Ruben, 2000; Jackson, 2000; Hansen, 2000; 2000b; 2000c; 2000d; Herron and Sekhon, 2001). Independent studies have also demonstrated ballot usability problems, particularly with butterfly ballots (Resnick, 2000; Fox, 2000; Keating, 2002; Wand et al., 2001).

Even if we grant Thernstrom and Redenbaugh this premise, the point is still moot. Four months after the Thernstrom and Redenbaugh issued their dissent, the NORC released their examination of Florida's year 2000 spoiled ballots. They found that 24,653 spoiled ballots could have been used under the most lenient of Florida county standards for determining voter intent. Even under the most stringent standards, thousands could have been used. The NORC determined that *3,690 overvotes were clearly usable, and these favored Gore by a 60/40 margin.* Had Katherine Harris and the Bush Campaign not succeeded in their efforts to get these votes suppressed, Gore would have won the election even if the issue of confusing ballots in Palm Beach County was not considered (NORC, 2001; Nickens, 2001; Keating, 2002). In fairness to Thernstrom and Redenbaugh, the NORC analysis was not available to them when their dissention was written and it's unlikely that they had the NORC's level of access to actual spoiled ballots. But even so, the presence of disturbances on thousands of ballots was well known, and it was unreasonable of them to assume with no further investigation, that virtually none of these ballots gave any indications of voter intent.

As for the blanket assumption that all mismarked ballots were the result of voter error, this might have been believable had it been rare. But that was not the case. Usability studies have demonstrated that under very reasonable conditions ballot design was unnecessarily confusing in Palm Beach County (Resnick, 2000; Fox, 2000). Numerous other independent investigations using independent statistical methods have shown that this contributed directly to unintended ballot spoilage at statistically significant levels far higher than can be accounted for by voter error alone (Brady, 2000; Orzag and Orzag, 2000; 2000b; 2000c; Ruben, 2000; Jackson, 2000; Hansen, 2000; 2000c; 2000d). All conclude that *poor ballot design robbed Gore of at least 300 votes relative to Bush in Palm Beach and Miami-Dade counties alone, independent of lost votes due to undervoting and overvoting.* The probable figures run from 2000 to 3000. Most of these studies also incorporated non-Palm Beach control variables. Votes for Buchanan for instance (whose name was proximately placed with Gore's on the ballot) received far more votes than could be accounted for by census and electoral data from any of Florida's 67 counties or previous elections. Unless Thernstrom and Redenbaugh can explain how nearly *all* incompetence among Florida's voters just happens to reside in these two counties alone, the claim that Gore lost due to "voter error" is unconvincing.

Machine related errors were negligible, and could not have been racially biased.

Thernstrom and Redenbaugh do acknowledge that at least some ballot spoilage was unintentional and not related to voter error—namely that due to machine count errors. But they argue that such errors were at best negligible, and because they were random, no racially biased disenfranchisement could have resulted from them even in principle. On page 13 we're told that,

> "Still, there are overvotes and undervotes that undoubtedly did not reflect the will of the voters. What accounts for them? The opening paragraph of the introduction to the majority report suggests that the issue is whether 'votes that were cast were properly tabulated.' What does this mean? Are we to believe African Americans cast their ballots correctly on election day, but that many of their ballots were incorrectly tabulated by the machines, or the people who conducted manual recounts in some counties? There is no evidence whatsoever to support that implication.
>
> Some of the 180,000 rejected ballots may have the result of machine error, of course – but very few. Machine error, according to experts who have studied it, is rare, involving at most 1 in 250,000 votes cast. And machine error is obviously random, and thus cannot 'disenfranchise' any population group. No one has yet shown that a VotoMatic machine can be programmed to distinguish black voters from others and to record votes by African Americans in such a way as to facilitate their rejection."
>
> (Thernstrom & Redenbaugh, 2001)

From these words it's clear that they have little or no understanding of technology based residual votes. The 1 in 250,000 to one million error rates they refer to are typical of those for raw count errors in optical scan systems as determined by controlled laboratory tests. We saw earlier that these are not the same as the residual vote rate due to machine use, which includes errors related to setup and use "in the field", ergonomics of voter use (which is *not* the same as "voter error"), maintenance, or any of a number of other factors. Any engineer could have told them that there is a big difference between laboratory tests of a prototype and mass production followed by widespread implementation! They cite the Caltech/MIT Project's report "Residual Votes Attributable to Technology" (Caltech/MIT, 2001) and do make reference to its statement that machine errors are driven mainly by "how people relate to the technologies" (which comes close to acknowledging the difference between test results and use), but they seem to think that this is synonymous with voter error. Had they read the paper more carefully they would have found that this is not the case. Not only was an in-depth examination of the difference presented, data on actual machine driven residual vote rates by technology type as compared to a lever machine baseline. These figures are considerably higher than the ones they quoted.

Furthermore, Lichtman's analysis, which they reviewed at length, gives technology driven residual vote rates of 4 and 0.8 percent of all ballots cast using optically scanned ballots recorded at the county and precinct levels respectively (Lichtman, 2001). Similar results have been obtained in other studies of optical scanning methods in presidential elections (Caltech/MIT, 2001; Brady, 2000; Brady et al., 2001; Ansolabehere & Stewart, 2005). The USCCR report

gives county level spoiled ballot rates ranging from 3.7 to 12.4 percent for the former, and 0.2 to 3.9 percent for the latter (USCCR, 2001). From these figures it can be seen that using in counties using the same optical scan methods, *the difference between central and precinct tabulation of ballots by itself may account for spoilage of more than 3 percent of all ballots cast*. Counties that relied on the former account for over 15,000 of Florida's spoiled ballots even before we consider spoilage rates in counties that used punch card methods (USCCR, 2001). According to Thernstrom and Redenbaugh, the fact that some optical scan counties use different procedures for counting *the very same mark-sense forms* must somehow be the voters' fault. This stretches the limits of reason to the breaking point.

What of the claim that machine counts are not racially biased? It is true that ballots do not indicate race and counting machine errors are random. If so, how could they skew vote tallies by race? By socio-economic, political factors, and other systemic factors that affect how these technologies are selected and implemented. We've already seen how the reliability of different voting technologies varies widely by both design and method of implementation (Stuart, 2004; Caltech/MIT, 2001). Central vs. precinct level counting of ballots alone has a large impact on discrepancies between black and white residual vote trends (Fessenden 2001; Mintz & Keating, 2000; Keating and Mintz 2001; USCCR 2001). Both were used in the Florida 2000 election, and poor and minority voters were disproportionately represented in Florida counties that used inferior central vote tabulation methods. In general, minorities nationwide are disproportionately represented in counties that use inferior voting methods, and simply making better technologies available to these counties may all but eliminate residual vote black/white discrepancies (Tomz & Van Houweling, 2003). To be certain there are many reasons for this, not the least of which will be county budgets. Under state guidelines, counties decide which technologies they use, how they will be implemented, and what training and oversight will be provided. These decisions are often driven by cost leaving poorer counties (also disproportionately minority) with fewer options. No doubt many other factors are involved. The question of why minorities more concentrated in districts using inferior voting technologies is complex and beyond the scope of this paper. But it's enough to establish that they are, and that this is largely (if not completely) unrelated to voter choice. Thernstrom and Redenbaugh avoid this discussion by reverting to the nefarious plot myth.

4) *Democrats and Disenfranchised Voters Were to Blame for All Problems.*

According to Thernstrom and Redenbaugh,

> "The majority report lays the blame for the supposed 'disenfranchisement' of black voters at the feet of state officials—particularly Governor Jeb Bush and Secretary of State Katherine Harris. In fact, however, elections in Florida are the responsibility of 67 county supervisors of election. And, interestingly, in all but one of the 25 counties with the highest spoilage rates, the election was supervised by a Democrat—the one exception being an official with no party affiliation.
>
> The majority report argues that much of the spoiled ballot problem was due to voting technology. But elected Democratic Party officials decided on the type of machinery used, including the optical scanning system in Gadsden County, the state's only majority black county and the one with the highest spoilage rate."
>
> (Thernstrom & Redenbaugh, 2001)

Peter Kirsanow tells us that,

> "State officials were not at fault for widespread voter "disenfranchisement". The myth holds that Governor Bush, in league with Secretary of State Katherine Harris, either by design or incompetence, failed to fulfill their electoral responsibilities, resulting in the discriminatory disenfranchisement of thousands of black voters. This was purportedly a key to the overarching Republican plot to steal the election from Al Gore.
>
> Again, reality intrudes. The uncontroverted evidence shows that by statute the responsibility for the conduct of elections is in the hands of county supervisors, not the governor or secretary of state. County supervisors are independent officers answerable to county commissioners, not the governor or secretary of state. And in 24 of the 25 counties that had the highest ballot-spoilage rates, the county supervisor was a Democrat. (In the remaining county the supervisor was not a Republican, but an independent.)"
>
> (Kirsanow, 2004)

In other words, all responsibility for the integrity of the election process--including the selection and implementation of voting technologies, all technical support and training, all training of poll workers, oversight of voter registration, management of the absentee ballot process, and more--lies with *county officials only*, not the governor or Secretary of State.

At this point careful readers might be wondering what "statute" provided them with this "uncontroverted" evidence. It stands to reason that the responsibilities of county supervisors, the Secretary of State, and the governor regarding the oversight of elections would have been defined by the Florida State Legislature and any serious professional who wanted to see "reality intrude" would have checked the state's constitution and statutes. Predictably, neither Kirsanow or Thernstrom and Redenbaugh cited any such information. For that matter, neither did anyone else I could find.

Since they refuse to, perhaps we should.

According to the Florida State Constitution the Governor's office has the authority and the responsibility for ensuring that all state and federal laws regarding elections are executed (FL. State Const., Art. 4, Sect. 1a). The governor also has the power, and the responsibility for appointing special officers to investigate alleged violations of the election laws (FL. Stat., 2000, Ch. 102.091). As of the USCCR report, and Thernstrom and Redenbaugh's dissent, this had not been done despite the wealth of evidence for widespread irregularities that has already been presented in this paper.

Under Florida State law, the Secretary of State's office is responsible for the following;

- Obtain and maintain uniformity in the application, operation, and interpretation of the election laws;
- Provide uniform standards for the proper and equitable implementation of the registration laws;
- Actively seek out and collect the data and statistics necessary to knowledgeably scrutinize the effectiveness of election laws;
- Coordinate the state's responsibilities under the National Voter Registration Act of 1993;
- Provide training to all affected state agencies on the necessary procedures for proper implementation of this chapter;
- Ensure that all registration applications and forms prescribed or approved by the department are in compliance with the Voting Rights Act of 1965;
- Coordinate with the United States Department of Defense so that armed forces recruitment offices administer voter registration in a manner consistent with the procedures set forth in this code for voter registration agencies;
- Maintain a voter fraud hotline and provide election fraud education to the public.

- Create and maintain a Central Voter File;
- Adopt rules establishing standards for voting systems, and certification of the voting systems chosen by each county.
- Provide technical assistance to the supervisors of elections for these voting systems.
- Provide technical assistance to the supervisors of elections on voter education and election personnel training services;
- Provide voter education assistance to the public;

(FL. Stat., 2000, Ch. 97.012)

Note the last five in particular.

Create and maintain a Central Voter File: In other words, create and maintain a record or all Florida citizens with a legal, constitutionally guaranteed right to vote for their leaders. This includes the responsibility for making sure that list is *accurate*--that it does not include convicted felons *or deny anyone their vote due to wrongful felon or denial of legal clemency status*.

Adopt rules establishing standards for voting systems, and certification of the voting systems chosen by each county: Establish guidelines for selection of all county level voting systems and rules guaranteeing quality control in their setup and use, *and certify whether each county's system meets the necessary requirements*.

Provide technical assistance to the supervisors of elections on voting systems: Provide all needed technical support and training necessary to guarantee that these voting systems are operated and maintained in an efficient and reliable manner.

Provide technical assistance to the supervisors of elections on voter education and election personnel training services: Provide all needed technical support and training necessary to guarantee efficient polling places and properly trained workers.

Provide voter education assistance to the public: Ensure that voters have ready access to all the information and help they may need to properly cast their votes.

It's difficult to see this list adds up to zero responsible for the integrity of elections. It is true that county supervisors are responsible for the selection and use of voting systems, vote counts, and the efficient operation of polling places. But the Secretary of State is responsible for guaranteeing that counties have everything they need to meet these objectives, *and for making sure they've been successfully achieved*.

Presumably, this also includes *making things right if they haven't*, in which case Katherine Harris and her defenders have some explaining to do. Right from Election Day there was evidence of widespread polling place irregularities and ballot spoilage and evidence that many of those spoiled ballots gave clear indications of voter intent. This information was well documented and easily available. Any serious professional charged with fulfilling the duties described above--with protecting the constitutional *rights* of Florida's voters--would have examined this evidence and taken steps to restore as many of those votes as was practical.

Not only was this not done, *Harris actively fought to prevent it from happening using every resource available to her,* and offered ongoing assistance to the Bush Campaign to help them achieve the same goal. A well regulated manual recount with bipartisan oversight would have revealed voter intent for a great many of those votes and allowed for their restoration--a fact that has clear historical and legal precedents (Cohen, 2000). Throughout the election's legal contests and ever since, it's been argued that this was not possible due to a lack of uniform county level standards for determining voter intent from hand examination of ballots. This ignores the fact that responsibility for such standards lies well within the legislated obligations of the Secretary of State's office just described;

Obtain and maintain uniformity in the application, operation, and interpretation of the election laws.

Harris had the power and the obligation to set up a statewide manual recount under strictly regulated conditions with bipartisan input and oversight, and to see that it was properly carried out--which is precisely what the final U.S. Supreme Court ruling stated as a requirement of further recount efforts. Had this process been initiated when widespread ballot problems were first discovered there would have been more than enough time to make this happen—or for anyone who truly cared about voter disenfranchisement to at least explore the possibilities. Even if such a recount proved impractical, a serious effort in that direction on Harris' part would have demonstrated a commitment to the duties of her office and the rights of *all* voters under her trust. To date, I have yet to find one documented instance where Harris or anyone associated with the Bush Campaign made any suggestion that this might even be *worthwhile*, much less made any effort in that direction. Every activity I could verify from publicly available records and information outlets was directed at shutting down all recount efforts *regardless of the conditions under which they might occur*.

On January 12, 2001 Harris and Governor Jeb Bush both testified before the USCCR. Their statements were revealing. Bush told the committee that he had "no real legal authority over election matters" except for certifying the election and serving as a member of the State Canvassing Board, from which he had recused himself given that his brother was a presidential candidate. The Committee inquired what authority and responsibility he had regarding preparation for the 2000 presidential election, to which he replied that he had none. *"The secretary of state and the 67 supervisors of elections were responsible for that"* he said, "and they carried out their duties" (Bush, 2001, my emphasis).

But when Harris testified she repeatedly denied having these responsibilities (Harris, 2001; Lantigua, 2001b; Lindsey, 2001). She stated that her authority over the election process was strictly "ministerial" and that she had no real authority for leadership or enforcement in election matters.

> "[W]e attempt to achieve uniformity in the interpretation of the election code, but we are without authority to direct the conduct of county supervisors of elections."
>
> (Harris, 2001)

When challenged on this she immediately deferred to FDE Director Clay Roberts who was also present and to whom she stated she had delegated those responsibilities. Roberts replied that,

> "Nowhere in the statutes does it provide the Secretary of State with the ability to apply additional rules. We cannot engage in rulemaking without the authority to make the rule. We were without authority."
>
> (Lantigua, 2001b)

In fact, *the statutes clearly state that they did have that authority*, particularly in regard to voting technology oversight, the Central Voter File, and availability of training and needed resources for poll workers (FL. Stat., 2000, Ch. 97.012), and per the Florida State Constitution the governor's was responsible for ensuring that all state and federal laws regarding elections were executed (FL. State Const., Art. 4, Sect. 1a).

It's ironic that Harris went to such lengths to pass responsibility for oversight of the election before the USCCR. During the *Bush vs. Gore* Harris and legal counsel for Bush and Cheney argued emphatically that she *did* have that authority. They argued that the Secretary of State's office and the FDE were "charged with interpreting and enforcing the Florida Election Code" (Bush vs. Gore, No. 00-949, Brief of the Secretary of State). In their final decision the court also emphasized that the Secretary of State and the FDE had this authority stating that,

> "Importantly, the legislature has delegated the authority to run the elections and to oversee election disputes to the Secretary of State (Secretary), Fla. Stat. Ch. 97.012(1) (2000), and to state circuit courts, Chs. 102.168(1), 102.168(8). Isolated sections of the code may well admit of more than one interpretation, but the general coherence of the legislative scheme may not be altered by judicial interpretation so as to wholly change the statutorily provided apportionment of responsibility among these various bodies."
>
> (Bush vs. Gore, 531 U.S._2000)

In December of 2000 when she wanted the authority to stop manual recounts Harris stridently insisted that *she alone* had authority over elections policy and her decisions on this matter should stand. The U.S. Supreme Court agreed. Less than 4 weeks later she argued before the USCCR that she had no such responsibility. They of course, were more than a little curious as to how she could hold so much power in November 2000 when she wanted to block manual recounts, yet conveniently *lose* all of it prior to the discovery of widespread ballot spoilage and felon list problems. Needless to say, they did not find her answers to be very convincing.

Thernstrom and Redenbaugh argued that there was no conflict because authority over vote counting procedures has nothing to do with running an election. According to them,

> "Governor Bush has virtually no authority over the voting process, and the Secretary of State's role is mainly to provide non-binding advice to local officials."
>
> (Thernstrom & Redenbaugh, 2001)

This is flatly contradicted by the Florida statutes listed above which clearly state that Harris' office was responsible for maintaining uniformity in the application, operation, and interpretation of all election laws, for certifying all voting systems, and for providing any and all technical resources and training necessary to insure their proper implementation. In the very least, she was responsible for doing whatever could be done to retrieve as many lost votes as possible--*not to do everything within her power to prevent this.* Thernstrom and Redenbaugh did not reference any particular statutes for their claims and were unable to come up with a compelling explanation for any of this.

Harris wasn't able to either. By September 2002 settlement agreements were reached in NAACP vs. Harris, S.D. Florida in favor of the plaintiffs including the NAACP and numerous Florida voters. Harris continued to deny all responsibility right to the end, but was compelled to settle by an increasingly weak case and the prospect of unacceptable further litigation. Previous settlements had already been reached in the plaintiffs' favor with every other defendant including the Florida State's Highway Safety and Motor Vehicles and Children and Families Departments, seven other counties, and Choicepoint. Choicepoint, who from the start had complained of being ordered by Harris and the FDE to relax their felon identification standards even after having informed them of the false-positive consequences, agreed to donate $75,000 to the NAACP as part of their settlement which will be used to fund past and future efforts to further the electoral opportunities of Florida's minority voters. They also agreed to re-process their 1999 and 2000 felon lists. As a result of their troubles with Harris and the FDE, they announced shortly thereafter that they were getting out of the business of state felon lists for good. In the aftermath of November 2000 governor Jeb Bush appointed a bipartisan committee to investigate how Florida's electoral system could be reformed, which led eventually to the Florida Election Reform Act of 2001 (GSTF/CCPP, 2001). It's noteworthy that most of the real work done by this committee happened after the USCCR began their investigation and the NAACP had filed their post-election lawsuit, and many of the more important reforms had originally been proposed in the USCCR report or were part of the settlements in the NAACP lawsuit (NAACP, 2001; NAACP vs. Harris, 2001; LCCRUL, 2002). Note that these reforms were carried out by the Florida State Legislature per the recommendations of a select committee appointed by Governor Jeb Bush, and implemented under his authority and that of Secretary of State Katherine Harris--*not county supervisors*.

Had all this been done before fall of 2000 over 12,000 voters who were wrongly listed as felons would not have been (Smith, 2003). Over two-thirds were Democrats. Of these at least 1,100 were actually denied their vote on Election Day according to the Palm Beach Post study discussed earlier which was based on flawed FDLE records and is therefore likely to be low if anything (Hiaasen et al., 2001). Even if no more wrongful felon listings were ever proven, this would have given more than enough votes to Al Gore relative to Bush to give him the presidency.

If there is one recurring theme in all of this it's *accountability*. From the beginning the USCCR report focused mainly on identifying the problems with the election process and getting them resolved. It was to this end only that responsibility for them was addressed. The report did hold county supervisors, Katherine Harris, the FDE, and Jeb Bush responsible in varying degrees, but devoted most of its content to discussing what went wrong and why. Throughout, it made numerous specific recommendations for improvements. When the NAACP filed their lawsuit in January 2001 they sought specific reforms to Florida's electoral process, not monetary damages. They requested an overhaul of the voter registration process, Felon List and Central Voter Files, correction of all wrongful felon listings,

and more (NAACP, 2001; NAACP vs. Harris, 2001). It's noteworthy that in over 200 pages of content, the USCCR report does not contain even one partisan statement. Free text searches of the document reveal no instances of "Republican" or "Democrat" other than purely informational statements regarding demographics or governmental organization (USCCR, 2001). Searches of legal documents pertinent to NAACP vs. Harris for these terms also come up empty (NAACP vs. Harris, 2001; NAACP vs. Harris, 2002).

By contrast, similar searches of Thernstrom and Redenbaugh's dissent and other articles by defenders of Harris and the Bush campaign yield numerous instances of both terms, virtually every one of which appears in the context of redirecting blame for Florida 2000 to wronged voters and Democrats, or to outright ad-hominem. Joe Kerry (2004) is typical of most when he says,

> "In all but one of the 25 counties with the highest ballot spoilage rates, the election was supervised by a Democrat-the one exception being an official with no party affiliation. In fact, most of the authority over elections in Florida resides with officials in the state's 67 counties, and all of those with the highest rates of voter error were under Democratic control. Of the 25 Florida counties with the highest rate of vote spoilage, in how many was the election supervised by a Republican? The answer is zero. All but one of the 25 had Democratic chief election officers, and the one exception was in the hands of an official with no party affiliation."
>
> (Kerry, 2004)

Nowhere did Kerry attempt to delineate these responsibilities or those of Katherine Harris' office. Nor was there any discussion of what might be done differently next time. He then informs us that,

> "The Commission completely ignored the bigger story: Approximately 5,600 felons voted illegally in Florida on November 7, approximately 68 percent of whom were *registered Democrats*. The Miami Herald discovered that, 'among the felons who cast presidential ballots, there were "62 robbers, 56 drug dealers, 45 killers, 16 rapists, and 7 kidnappers. At least two who voted were pictured on the state's on-line registry of sexual offenders.'" (My emphasis)
>
> (Kerry, 2004)

Notice that he carefully avoids any discussion of the fact that those felon voters made it through the polls *because county supervisors were unwilling to use a felon list which was widely known to have been riddled with false-positives*. That list was Katherine Harris' responsibility. Even if Kerry's statement were correct the relevance of the political affiliations of these "felons" was never clarified. Nowhere is there any discussion of what the figures even represent, much less how they were derived or how they relate to the larger population of Democrat voters. The whole argument appears to have no other point than to somehow link registered Democrats with criminals and place as much blame as possible on them.

In this respect Kerry's comments are typical of the Far-Right's treatment of this issue. Having reviewed literally thousands of articles and commentaries representing numerous conservative media outlets and online forums nationwide, I found many that did acknowledge some citizens were wrongfully denied their votes (particularly by the felon list). However…

I have yet to find even one statement anywhere in this body of literature that expressed any regret about the election's problems, showed any empathy toward those who were impacted by it, or offered any suggestions whatsoever as to how problems like these might be prevented in future elections.

Without exception everyone concerned themselves solely with *passing all responsibility away from themselves and onto Democrats and disenfranchised voters.*

Successful leaders have long known that no problem is ever solved merely by assigning blame. Those who are truly committed to the Constitution and the well-being of all voting American citizens will spend as little time as possible doing so and commit themselves to solving the problems. In the aftermath of November 2000 Governor Jeb Bush appointed a bipartisan committee to investigate how Florida's electoral system could be reformed. This led to the Florida Election Reform Act of 2001 (GSTF/CCPP, 2001). Most of the real work done by this committee happened *after*

the election, when the problems gained national attention and the USCCR investigation and NAACP lawsuits were under way. Many of the resulting reforms had been proposed in the USCCR report or were part of the various settlements in the NAACP lawsuit (NAACP, 2001; NAACP vs. Harris, 2001; LCCRUL, 2002). The contributions of these organizations and their supporters to the process played a significant role in bringing this about. Most if not all of the issues these reforms corrected were known well in advance of Election Day 2000. If these efforts had been initiated then tens, even hundreds of thousands of Florida voters would not have been denied their constitutional right to a vote.

And the American people would have the president they truly chose.

Conclusion

Figure 1 shows a side by side comparison of the Gregoire/Rossi and Bush/Gore races summarizing the results of this study. It's clear that neither election gave a statistically significant margin to the victor. In fact, they were almost identical in their final margins. Beyond that, the differences between the two are striking. In almost every respect where comparisons can be made Florida 2000 shows far more ballot spoilage and voter disenfranchisement, and systemic abuses. Furthermore, unlike Washington 2004 there is clear and well documented evidence of negligence highly partisan oversight of the election by Secretary of State Katherine Harris, and even mob violence instigated by the Bush Campaign. Nothing even remotely similar happened in Washington 2004, and in over 5 months neither the WSRP or Rossi supporters were able to produce any evidence to the contrary.

To get a clearer picture, consider what Washington 2004 would have looked like if Florida 2000 had happened there normalized to total ballot count.

- The presidential race would have had nearly 85,000 rejected ballots, not 21,000. The large majority would have been Republican votes.

- Over 31,000 of these would have been verified as unintentionally spoiled and showing clear indications of voter intent—more than the population of Wenatchee, WA. At least two thirds of these ballots would have been Rossi votes.

- Over 5,800 voters would have been wrongly listed as felons in Washington voter records. Over two thirds of these would be Rossi supporters.

- Washington's Secretary of State (John Doe, let's say) would have been a Democrat and a co-chair of Gregoire's campaign right up to Election Day. In the weeks following the election he would have been actively involved in blocking any and all effort by the Rossi Campaign to pursue legal challenges to the election and any investigation of its many reported irregularities. Following Election Day the State Supreme Court would have intervened twice to force him to allow manual recounts of ballots in pro-Rossi counties that had unusual ballot spoilage rates. Throughout the gubernatorial campaign he would have collaborated extensively with Gregoire Campaign officials on many election related tasks and housed them at least once.

- Post election investigations would have revealed that John Doe's office had been informed months in advance that his guidelines for preparation of the state felon list would significantly drive up false positives, but that he'd ordered the list to be prepared with those guidelines anyway. The resulting fallout would have fallen disproportionately on Rossi voters.

- Roughly 2,700 to 3,000 rightful voters would have been denied their vote due to wrongful felon listings. At least two thirds of those would have been Rossi voters.

- Another 2,700 *actual* felons would have voted in the election, largely because Republican county supervisors knew the state felon list was badly flawed and didn't use it for fear of

disenfranchising rightful voters. Despite the evidence as to how John Doe's office had handled the list's preparation, Democrats across the nation would blame *them* for these felon votes.

- Hundreds and perhaps thousands of ballots would have been deliberately altered by Democrat county supervisors. Though at least some of these would have been legitimate damaged ballot recoveries, they would have refused to do the same for Republican ballots when requested to. Thousands more ballots would have been submitted in ways contrary to clear Washington State law.

- There would have been widespread evidence of racial biases, particularly in the state felon list and ballot spoilage rates. Numerous independent statistical analyses would have demonstrated this, and that the impact fell disproportionately on Rossi. The one sole exception would have been an analysis by a Far-Left economist with a history of professional and ethical lapses that had been commissioned by the Democrat party. The study would have numerous math errors.

- One of the state's larger pro-Rossi counties (Spokane County let's say) would have suffered unusually high levels of ballot spoilage. Numerous independent statistical analyses would have shown that this was highly unlikely to have been intentional and that once again the impact fell disproportionally on Rossi. While a State Supreme Court approved recount was under way to recover as many of those votes as possible, a mob of Democrat protesters would have descended on the county election headquarters trapping elections workers behind closed doors. At least one Republican elections worker trying to escape would have been assaulted and beaten. Later, it would have been discovered that the Gregoire Campaign had organized and financed the mob, sent hundreds of staff workers all expenses paid to help organize it, and thrown a thank-you party for the participants afterwards.

- To this day numerous Far-Left forums nationwide would be dismissing all of the above as sour grapes. Republican voters who spoiled their ballots were simply "stupid", we would be told, and it was self-centered of the Rossi Campaign to call for manual recounts of those spoiled ballots and an investigation of the election instead of allowing "the will of the people" to be accepted.

To be sure, there were irregularities in the Washington 2004 election and Rossi supporters were right to insist that they be investigated and rectified. But nothing even remotely comparable to the above happened in that race. Even so, while there is no evidence of any intentional fraud in either election, in Florida 2000 we have clear evidence of Katherine Harris' conflict of interest in the election's oversight and repeated attempts on her part to actively block any and all access to lawful election challenges by the Gore Campaign. Her office was shown evidence of the flaws in the state felon list months in advance of the election, yet still she ordered the list to be prepared with those flaws anyway. In the end, it was the success of her efforts and those of the Bush Campaign to block all attempts at recovering unintentionally spoiled votes that gave Bush the presidency of the United States. If either election could in any sense be considered "stolen" it's *this* one.

Speaking for myself, I appreciate the conservative concerns regarding Gregoire's governorship. I believe they had every right to challenge her victory in court, and given that her victory was no more statistically significant than Rossi's machine counted victories they also have a right to dispute the legitimacy of her office. But the double standard they've shown in this matter is almost beyond belief. Had the scenario above actually happened in the Gregoire/Rossi race they wouldn't be merely angry—they would be positively *livid*. Airwaves across the nation would be filled with angry denunciations of a "stolen" election and demands that everyone involved be sent to prison.

This *did* in fact happen to Democrats in 2000, and ever since those who dared to raise their voice in protest have been dismissed as self-centered spoil-sports or worse. During last fall's election I recall many friends and family members waxing eloquent at social gatherings about how they hoped the Gregoire/Rossi race wouldn't end too close… because they "just couldn't bear to see a repeat of what the Democrats did to the nation in 2000". The outcome of that

race decided far more than a governor's seat—it gave the presidency of the United States to a man who had nowhere near a majority of the popular vote.

Now after more than four years of callous dismissals, accusations of "stupidity" on the part of Florida's year 2000 disenfranchised voters, and "moral" indignation about "what the Democrats did"…

The bomb has landed in *their* court…

And we're being asked to believe that what actually happened was somehow an atrocity against the Constitution and everything America stands for.

This dog doesn't hunt. Few things are more damaging to anyone's credibility than demanding that his or her enemies be held to ethical and professional standards that they're neither able, nor willing to live up to themselves. Conservative and liberal interests alike have every right to stand up for their interests and concerns, and to challenge the behavior of others where they feel it is wrong—even if they hold extreme views. The Far-Right is more than entitled to consider Christine Gregoire's governorship illegitimate if they wish.

But if they want to have even so much as the appearance of consistency they must also acknowledge that George W. Bush gained the presidency illegitimately in 2000 and be willing to give the country back to the man who rightly won it. If this is not acceptable then they must concede the Washington gubernatorial race graciously and without complaint —*as they demanded of Democrats in 2000*.

If they refuse to do this they will only be proving to the world that they don't have what it takes to stand their ground on a morally level playing field.

References

American Association for Public Opinion Research (AAPOR). 2005. Standards and Best Practices for Public Opinion Research. *American Association for Public Opinion Research* 2003 to present. Available online at www.aapor.org/default.asp?page=survey_methods/standards_and_best_practices. Accessed August 31, 2005.

Ammons, D. 2005. Gregoire receives death threat. *Seattle Times*, February 3, 2005. Available online at http://seattletimes.nwsource.com/html/localnews/2002170042_webgregoire03.html. Accessed May 24, 2005.

Ansolabehere, S. and A. Reeves. 2004. Using Recounts to Measure the Accuracy of Vote Tabulations: Evidence from New Hampshire Elections 1946-2002. *Caltech/MIT*. VTP Working Paper #11. January 2004. Available online at www.vote.caltech.edu/media/documents/wps/vtp_wp11.pdf Accessed August 23, 2005.

Ansolabehere, S. & Stewart, C. 2005. Voting Technology and Residual Votes in the United States. *J. Politics*, **67**, 2, pp. 365-389. Available online at http://journalofpolitics.org/Contents/Vol67/arts672/stewart.pdf. Accessed May 19, 2005.

Ayres, I. and J.J. Donohue 2003. Shooting Down the "More Guns, Less Crime" Hypothesis. *Stan. Law Rev.*, **55**, pp. 1193-1312. Available online at http://repositories.cdlib.org/cgi/viewcontent.cgi?article=1026&context=csls. Accessed August 16, 2005.

Ayres, I. and J.J. Donohue 2003b. The Latest Misfires in Support of the "More Guns, Less Crime" Hypothesis. *Stan. Law Rev.*, **55**, pp. 1371-1398. Available online at http://lsr.nellco.org/cgi/viewcontent.cgi?article=1010&context=yale/lepp. Accessed August 16, 2005.

Balkin, J.M. & Levinson, S. 2001. Understanding the Constitutional Revolution. *Virg. Law Rev.*, **87**, 45. 1045-1104. Available online at www.yale.edu/lawweb/jbalkin/articles/constitrev.pdf. Accessed May 9, 2005.

Bailey, E. 2000. Deposition in the Seminole County Absentee Ballot Trial. *Leon County Circuit Court, FL*, November 30, 2000. Available online at www.campaignwatch.org/excerpts.htm#scrambl.

Barstow, D. and D. Van Natta. 2001. How Bush Took Florida: Mining the Overseas Absentee Vote. *New York Times*, July 15, 2001. Available online with subscription at http://www.nytimes.com/2001/07/15/national/15BALL.html?pagewanted=all. Accessed May 29, 2005.

Black, D. and D. Nagin. 1998. Do Right-to-Carry Laws Deter Violent Crime? *J. Legal Studies*, **27**. pp. 209-219.

Blalock, H.M. 1979. Social Statistics. *McGraw Hill*, New York, 1979. pp. 382-386.

Bonner, R. and J. Barbanel. 2000. Duval County: Democrats Rue Ballot Foul-Up in a 2nd County. *New York Times*, November 17, 2000.

Borger, J. and G. Palast 2001. Inquiry into new claims of poll abuses in Florida. *The Guardian*, February 17, 2001. Available online at www.gregpalast.com/detail.cfm?artid=30&row=2. Accessed May 9, 2005.

Bousquet, S. 2002. Florida faces U.S. election suit. *St. Petersburg Times*, May 22, 2002. Available online with subscription at http://pqasb.pqarchiver.com/sptimes/120811600.html?MAC=f8677a8ac193005dd8e3026bbfeba8dc&did=120811600&FMT=FT&FMTS=FT&date=May+22%2C+2002&author=STEVE+BOUSQUET&pub=St.+Petersburg+Times&printformat=&desc=Fla.+faces+U.S.+election+suit. Accessed May 9, 2005.

Boyd, R.F. 2002. Letter to Sen. Patrick Leahy, chairman of the Senate Judiciary Committee, summarizing the findings of the investigation into allegations of racial disenfranchisement during Florida 2000. Assistant Attorney General R.F. Boyd, *U.S. Justice Dept. Civil Rights Division*. June 7, 2002. Available online at www.gwu.edu/~action/dojfl060702.html. Accessed May 15, 2005.

Brady, H.E. 2000. Equal Protection for Votes. *University of California, Berkeley*. Available online at www.skirsch.com/politics/election2000/brady_paper.htm. Accessed May 9, 2005.

Brady, H.E. 2000b. What Happened in Palm Beach County? *University of California, Berkeley*, November 9, 2000. Available online at http://socrates.berkeley.edu/~ucdtpums/palm2.pdf. Accessed May 9, 2005.

Brady, H.E., J. Buchler, M. Jarvis, and J. McNulty 2001. Counting All the Votes: The Performance of Voting Technology in the United States. *University of California, Berkeley*. September, 2001. Available online at http://ucdata.berkeley.edu/new_web/countingallthevotes.pdf. Accessed May 9, 2005.

Brunner, J. 2005. Judge dissects Republican claims one by one in ruling against suit. *Seattle Times*, June 7, 2005. Available online at http://seattletimes.nwsource.com/html/localnews/2002319861_trialhighlights07m.html. Accessed June 7, 2005.

Bush, J. 2001. Florida Governor Jeb Bush: Testimony before the U.S. Commission on Civil Rights. *U.S. Commission on Civil Rights*, Tallahassee Verified Transcript. January 12, 2001.

Bush vs. Gore. 531 U.S. 98. 2000. George W. Bush, vs. Palm Beach County Canvassing Board, et al. *U.S. Supreme Court*. Petitions, Oppositions, Replies, Motions, Briefs, Briefs for Amici Curiae, Oral Transcripts, and Final Opinion all available online from the Florida State University Law Library at www.law.fsu.edu/library/election/00-949/index.php. Accessed July 24, 2005.

Caltech/MIT Voting Technology Project (Caltech/MIT). 2001. Residual Votes Attributable to Technology: An Assessment of the Reliability of Existing Voting Equipment. *Caltech/MIT*, Version 2. March 30, 2001. Available online at http://vote.caltech.edu/media/documents/wps/vtp_wp2.pdf. Accessed May 9, 2005.

Cohen, A. 2000. The votes are all in, but the campaign has shifted into the courts. Now they can tell us who won. *CNN*, November 20, 2000. Available online at www.cnn.com/ALLPOLITICS/time/2000/11/27/how.html. Accessed June 26, 2005.

Cable News Network (CNN). 2000. Total Florida Ballots: Results of counties reporting over/undervote. *CNN*, Tabled data from CNN and the Associated Press. November 2000. Available online at www.cnn.com/ELECTION/2000/resources/ballot1.htm. Accessed July 31, 2005.

Quality Assessment and Accountability Systems (CASAS). 2000. Adult Literacy Estimates Database. *CASAS Online*, Adult Literacy Database searchable by multiple geographical scales including state and county. Available online at www.casas.org/lit/litcode/Search.cfm. Accessed July 31, 2005.

Cryer, J.D. 2001. Problems with Using Microsoft Excel for Statistics. *University of Iowa, Dept. of Statistics and Actuarial Science*, August, 2001. Available online at www.stat.uiowa.edu/~jcryer/JSMTalk2001.pdf. Accessed June 4, 2005.

Date, S.V. 2001. Harris sought state money for GOP operative. *The Guardian*, August 23, 2001. Available online at http://archive.democrats.com/view.cfm?id=4224. Accessed May 26, 2005.

Damron, M. and R. Roy. 2001. Mangled Ballots Resurrected. Thousands of spoiled votes were counted -- thanks to a helping hand. *Orlando Sentinel*, May 7, 2001. Available online at http://archive.democrats.com/view2.cfm?id=2678. Accessed May 29, 2005.

Duncan, O.D. and B. Davis. 1953. An Alternative to Ecological Correlation. *American Sociological Review*, **18**, 665-666.

Earlandson, J.C. 2000. Plaintiff's Expert Witness Disclosure Regarding James C. Erlandson: Seminole County Absentee Ballot Trial. *Leon County Circuit Court, FL*, December 1, 2000. Available online at www.campaignwatch.org/refsup4.htm#er120100.

Ervin, K. 2005. Prosecutors to challenge 110 voters. *Seattle Times*, April 29, 2005. Available online at archives.seattletimes.nwsource.com/cgi-bin/texis.cgi/web/vortex/display?slug=felons29m&date=20050429&query=felon+voters. Accessed May 9, 2005.

Ervin, K. 2005b. Election manager linked to false report. *Seattle Times*, May 19, 2005. Available online at http://archives.seattletimes.nwsource.com/cgi-bin/texis.cgi/web/vortex/display?slug=election19m&date=20050519&query=Election+manager+linked+Ervin. Accessed May 21, 2005.

Ervin, K. 2005c. Manager aware of flawed ballot report. *Seattle Times*, May 21, 2005. Available online at http://archives.seattletimes.nwsource.com/cgi-bin/texis.cgi/web/vortex/display?slug=election21m&date=20050521&query=Manager+aware+Ervin. Accessed May 21, 2005.

Ervin, K. 2005d. Sims defends election system. *Seattle Times*, February 10, 2005. Available online at http://archives.seattletimes.nwsource.com/cgi-bin/texis.cgi/web/vortex/display?slug=election10m&date=20050210&query=sims. Accessed May 21, 2005.

Federal Elections Commission 2001. 2000 Presidential Electoral and Popular Vote. *Federal Elections Commission Online*, December, 2001. Available online at http://www.fec.gov/pubrec/fe2000/elecpop.htm. Accessed June 4, 2005.

Ferrard, T. 2002. Democrats question scope of U.S. probe of Florida. *Reuters*, May. 30, 2002. Available online at www.thestate.com/mld/thestate/news/politics/3368119.htm. Accessed May 15, 2005.

Fessenden, F. 2001. Ballots Cast by Blacks and Older Voters Were Tossed in Far Greater Numbers. *New York Times*, November 12, 2001.

Filkens, D. and D. Canedy. 2000. Protest Influenced Miami-Dade's Decision to Stop Recount. *New York Times*, November 24, 2000.

Florida Department of Corrections (FDOC). 2001. 2000-2001 Annual Report. Available online at www.dc.state.fl.us/pub/annual/0001/stats/im_pop.html. Accessed May 15, 2005.

Florida Department of Corrections (FDOC). 2001. 2000-2001 Annual Report. Available online at www.dc.state.fl.us/pub/annual/0001/stats/im_pop.html. Accessed May 15, 2005.

Florida Division of Elections (FDE). 2001. Constitution of the State of Florida as Revised in 1968 and Subsequently Amended. Available online at www.flsenate.gov/Statutes/index.cfm?Mode=Constitution&Submenu=3&Tab=statutes. Accessed July 24, 2005.

Florida Division of Elections (FDE). 2001b. Reports by the Division of Elections. The FDE page containing links to reports on election issues including analysis of undervotes and overvotes from selected elections. Undervote and overvote data for 2000, which was available in 2001, no longer is. But current data from the 2004 election that is similar in format and reporting is available at http://election.dos.state.fl.us/reports/electreports.shtml. Accessed July 31, 2005.

Florida Department of Corrections (FDOC). 2001. 2000-2001 Annual Report. Available online at www.dc.state.fl.us/pub/annual/0001/stats/im_pop.html. Accessed May 15, 2005.

Florida Literacy Coalitions (FLC). 1992. Level One Literacy Percentages, By County. Based on the 1992 National Adult Literacy Survey. Available online at www.floridaliteracy.org/level_one.htm. Accessed July 24, 2005.

Fox, K. 2000b. Basis for Alternate Interpretations of the Palm Beach Ballot. *Fury.com*, November 2000. Available online at http://fury.com/galleries/palmbeach/index.php. Accessed August 14, 2005.

Fox News. 2004. Special Report with Brit Hume: On Dispelling Florida 2000 Myths. *Fox News*, Aired October 14, 2004. Available online at http://www.noticias.info/Archivo/2004/200410/20041015/20041015_36377.shtm. Broadcast also available online in Windows Media File video format at http://media1.streamtoyou.com/rnc/kirsanowfoxnews101404.wmv. Accessed June 29, 2005.

Freedburg, S.P. and L. Lapeter. 2000. Florida's vague absentee laws make fraud a concern. *St. Petersburg Times*, November 14, 2000.

Garcia, M. and T. Dubocq. 2000. Unregistered voters cast ballots in Dade Dead man's vote, scores of others were allowed illegally, Herald finds. *Miami Herald*, December 24, 2000. Available online at www.campaignwatch.org/refsup9.htm#mh122400. Accessed May 29, 2005.

Gelobter, M. 2000. Statistics and the Florida vote. *Rutgers University*, December 09, 2000. Available online at http://newarkwww.rutgers.edu/~gelobter/florida.htm. Accessed June 4, 2005.

Gigot, P. 2000. Miami Heat: A burgher rebellion in Dade County. *Wall Street Journal*, November 24, 2000.

Goertzel, T. 2002. Myths of Murder and Multiple Regression: Econometric Modeling as Junk Science. *Skeptical Inquirer*. **26**, 1. January/February 2002. Available online in an expanded version at www.scottchurchimages.com/enviro/docs/econojunk.asp (HTML) and www.scottchurchimages.com/enviro/docs/econojunkprint.pdf (PDF).

Gold, S. 2000. Suit Alleges Vote Fraud in Martin County, Fla. Courts: Democrat challenges actions of Republican officials who fixed incorrect absentee ballot requests. *Los Angeles Times*, December 02, 2000. Available online at www.campaignwatch.org/refsup3.htm#la120200. Accessed May 29, 2005.

Gold, S. 2000b. Presidential Win Could Turn on Legal Longshot in 2 Fla. Counties Law: Cases of flawed absentee ballot applications go to trial today. It is seen as Gore's 'last, best' chance. *Los Angeles Times*, December 06, 2000. Available online at www.campaignwatch.org/refsup5.htm#lat120600. Accessed May 29, 2005.

Goldstein, D. 2004. Heads or tails… why we'll never know who really won the governor's race. *Horses Ass Online*. December 2, 2004. Available online at www.horsesass.org/wp-trackback.php/276. Accessed August 21, 2005.

Grofman, B., L. Handley and R. Niemi. 1992b. Minority Representation and the Quest for Voting Equality. *Cambridge University Press*, New Ed. edition, 1994. ISBN: 0521477646. Available online at www.amazon.com/exec/obidos/tg/detail/-/0521477646/qid=1122837715/sr=1-13/ref=sr_1_13/104-0499350-2272700?v=glance&s=books. Accessed July 31, 2005.

GSTF/CCPP. 2001. Revitalizing Democracy in Florida. *Governor's Select Task Force on Election Procedures, Standards and Technology/Collins Center for Public Policy (GSTF/CCPP)*. Final report to Florida Governor Jeb Bush, March 1, 2001. Available online at www.collinscenter.org/usr_doc/Election%20Report.pdf. Accessed July 26, 2005.

Hansen, B.E. 2000. Who Won Florida? Are the Palm Beach Votes Irregular? *Univ. of Wisconsin*. November 11, 2000. Available online at www.ssc.wisc.edu/~bhansen/vote/florida.pdf. Accessed May 15, 2005.

Hansen, B.E. 2000b. A Precinct-Level Demographic Analysis of Double-Punching in the Palm Beach Presidential Vote. *Univ. of Wisconsin*. November 12, 2000. Available online at www.ssc.wisc.edu/~bhansen/vote/florida2.pdf. Accessed May 15, 2005.

Hansen, B.E. 2000c. A Non-Parametric Analysis of Undervotes in the Palm Beach Presidential Vote: Implications of a Recount. *Univ. of Wisconsin*. November 17, 2000. Available online at www.ssc.wisc.edu/~bhansen/vote/florida4.pdf. Accessed May 15, 2005.

Hansen, B.E. 2000d. Recount in Dade County> A Statistical Analysis. *Univ. of Wisconsin*. November 28, 2000. Available online at www.ssc.wisc.edu/~bhansen/vote/florida5.pdf. Accessed May 15, 2005.

Hansen, B.E. 2001. Precinct-Level Voting and Demographic Data. *Univ. of Wisconsin*. Links to data for several counties in txt and MS Excel format at www.ssc.wisc.edu/~bhansen/vote/data.html. Accessed July 31, 2005.

Hansen, B.E. 2003. Recounts from undervotes: Evidence from the 2000 Presidential election. *J. Am. Stat. Assn.*, **98**, 462, Pg. 292. Available online at http://www.ssc.wisc.edu/~bhansen/vote/florida4.pdf. Accessed May 15, 2005.

Hanushek, E. and J.E. Jackson. 1977. Statistical Methods for Social Scientists. *Academic Press*, New York, 1977.

Harris, K. 2001. Florida Secretary of State Katherine Harris: Testimony before the U.S. Commission on Civil Rights. *U.S. Commission on Civil Rights*, Tallahassee Verified Transcript. January 12, 2001.

Herron, M.C. and Sekhon, J.S. 2003. Overvoting and Representation: An examination of overvoted presidential ballots in Broward and Miami-Dade counties. *Electoral Studies*, **22**. Pgs. 21-47. Available online at http://elections.fas.harvard.edu/election2000/HerronSekhon.pdf. Accessed May 15, 2005.

Herron, M.C. and Sekhon, J.S. 2005. Black Candidates and Black Voters: Assessing the Impact of Candidate Race on Uncounted Vote Rates. *Journal of Politics*, **67** , 1. Available online at http://jsekhon.fas.harvard.edu/papers/BlackCandidates_HerronSekhon.pdf. Accessed May 15, 2005.

Hiaasen, S., G. Kane and E. Jaspin. 2001. Felon Purge Sacrificed Innocent Voters. *Palm Beach Post*, May 27, 2001. Available online at www.palmbeachpost.com/politics/content/news/election2000/election2000_felons2.html. Accessed May 9, 2005.

Hiaasen, S., G. Kane, and E. Jaspin. 2001b. Thousands of felons voted despite purge. *Palm Beach Post*, May 28, 2001. Available online at http://www.palmbeachpost.com/politics/content/news/election2000/election2000_felons.html. Accessed June 26, 2005.

Imai, K. and G. King. 2002. Did Illegally Counted Overseas Absentee Ballots Decide the 2000 U.S. Presidential Election?. *Harvard University*, January 25, 2002. Available online at polmeth.wustl.edu/retrieve.php?id=106. Accessed May 15, 2005.

Imig, D.R. 1996. Poverty and Power: The Political Representation of Poor Americans. *University of Nebraska Press*, Lincoln, NE.

Kamen, A. 2000. Texans Eye Replanting Lawn. *Washington Post*, December 6, 2000. Available online at www.washingtonpost.com/ac2/wp-dyn?pagename=article&node=politics/fedpage/columns/intheloop&contentId=A30170-2000Dec5. Accessed June 26, 2005.

Kaplan, D.A. 2001. The Accidental President. *William Morrow*, New York.

Karlan, P.S. 2001. Equal Protection: Bush v. Gore and the Making of a Precedent. in *The Unfinished Election of 2000*, Rakove, J.M. ed. New York, NY: Basic Books, (Perseus Books Group). (September 3, 2002). Available online at www.amazon.com/exec/obidos/tg/detail/-/0465068383/qid=1116191874/sr=1-1/ref=sr_1_1/102-8494987-6340905?v=glance&s=books. Accessed May 15, 2005.

Keating, D. 2002. Democracy Counts: The Media Consortium's Florida Ballots Project. *American political Science Association*, Paper prepared for annual meeting, Boston, MA. August 2002. Available online at www.aei.org/docLib/20040526_KeatingPaper.pdf. Accessed May 17, 2005.

Keating, D. and Mintz, J. 2000. Florida Black Ballots Affected Most in 2000; Uncounted Votes Common, Survey Finds. *Washington Post*, November 13, 2000.

Keating, D. and J. Mintz. 2001. A Racial Gap in Voided Votes: Precinct Analysis Finds Stark Inequity in Polling Problems. *Washington Post*, December 27, 2000. Available online at www.washingtonpost.com/ac2/wp-dyn?pagename=article&contentId=A52733-2000Dec26¬Found=true. Accessed May 15, 2005.

Kelly, G. 2002. Exile on mainstream. *The Observer*, Guardian Media Group, October 31, 2002. Available online at www.gregpalast.com/detail.cfm?artid=177&row=2. Accessed May 9, 2005.

Kennedy, D. 2003. Research Fraud and Public Policy. *Science*, **300**, 5618, pg. 393. Available online at www.sciencemag.org/cgi/content/summary/300/5618/393?rbfvrToken=85fc5f329f055f09fcc2b73079af3a2f24a4dd8c. Accessed August 21, 2005.

Kerry, J. 2004. The 2000 Election: Where's the Disenfranchisement? *Glennbeck.com*, August 9, 2004. Available online at www.glennbeck.com/news/08092004.shtml. Accessed June 21, 2005.

Kimball, D. 2004. Summary Tables on Voting Technology and Residual Vote Rates. *University of Missouri, St. Louis*, Available online at www.umsl.edu/~kimballd/rtables.pdf. Accessed Sept. 25, 2005.

Kimball, D. and M. Kropf. 2005. Assessing Election Reform Four Years After Florida. *Annual Meeting of the Southern Political Science Association,* New Orleans, LA, January 2005. Available online at www.umsl.edu/~kimballd/kkspsa05.pdf. Accessed Sept. 25, 2005.

King County Records, Elections and Licensing Services Division (King Cty. RELS). 2004. Election results: November 2, 2004 General and Special Elections. State Jurisdiction. *King County Dept. of Executive Services*. Available online at www.metrokc.gov/elections/2004nov/respage6.htm. Accessed August 28, 2005.

Kirsanow, P. 2003. The Florida Myth: An urban legend to fire up the base. *National Review*, October 15, 2003. Available online at www.nationalreview.com/comment/kirsanow200310150822.asp. Accessed June 29, 2005.

Kirsanow, P. 2004. Florida Forever: The political urban legend that facts won't kill. *National Review*, March 09, 2004. Available online at www.nationalreview.com/comment/kirsanow200403090858.asp. Accessed June 29, 2005.

Kissell, T.B. 2002. Felon Follies: A problem that marred the 2000 election is back. *New Times Broward-Palm Beach*, October 31, 2002. Available online at www.ics.uci.edu/~redmiles/ics131-FQ04/week02bVoting/LexisNexis(TM)%20Academic%20-%20Document%20-%20NAACP%20Suit.PDF. Accessed May 9, 2005.

Klinker, P.A. 2001. Whose Votes Don't Count?: An Analysis of Spoiled Ballots in the 2000 Florida Election. Appendix XI in *Voting Irregularities in Florida During the 2000 Presidential Election - USCCR*, June 25, 2001. Available online at www.hamilton.edu/news/florida/. Accessed May 9, 2005.

Kulish, N. and J. Vendehei. 2000. GOP Protest in Miami-Dade Is a Well-Organized Effort. Bush Campaign Pays Tab For Aides From Capitol Hill Flown in for Rallies. *Wall Street Journal*, November 27, 2000. Available online at www.campaignwatch.org/refsup8.htm#ws112700. Accessed May 29, 2005.

Lambert, T. 2004. Lott tries to rewrite history, again. *Deltoid Online Weblog*, February 28, 2004 post. Available online at http://timlambert.org/2004/02/johnlottorg/. Accessed August 21, 2005.

Lambert, T. 2005. John Lott-More-Guns-Less-Crime Posts. *Deltoid Online Weblog*, 2002-2005. Available online at http://timlambert.org/category/lott/more_guns_less_crime/. Accessed August 21, 2005.

Lambert, T. 2005b. John Lott-Survey Posts. *Deltoid Online Weblog*, Year 2003-2005 posts. Available online at http://timlambert.org/2005/07/lott-libels/. Accessed August 21, 2005.

Lambert, T. 2005c. Lott libels Donahue. *Deltoid Online Weblog*, July 22, 2005 post. Available online at http://timlambert.org/2005/07/lott-libels/. Accessed August 21, 2005.

Lambert, T. 2005d. Mary Rosh. *Deltoid Online Weblog*, Year 2003-2005 posts. Available online at http://timlambert.org/category/lott/maryrosh/. Accessed August 21, 2005.

Lambert, T. 2005e. Statements by those who have made general statements about the 1997 survey. *Deltoid Online Weblog*, Year 2003 posts. Available online at http://timlambert.org/2003/04/lottreply10/. Accessed August 21, 2005.

Lambert, T. 2005f. My name is John, and I'm addicted to sock puppets. *Deltoid Online Weblog*, May 12, 2005 post. Available online at http://timlambert.org/2003/04/lottreply10/. Accessed August 21, 2005. Several "Bob H." comments repeated in this post were originally directed at me.

Lantigua, J. 2001. How the GOP Gamed the System in Florida. *The Nation*, April 30, 2001. Available online at www.thenation.com/doc.mhtml?i=20010430&s=lantigua. Accessed May 9, 2005.

Lantigua, J. 2001b. Passing the Buck in Florida. *The Nation*, July 9, 2001. Available online at www.thenation.com/docprint.mhtml?i=20010716&s=lantigua0115. Accessed July 24, 2005.

LaPeter, L. and K. Ryan. 2000. When is helping voters too much? Some voters say Isis Segarra helps them with a lot of things - even punching their ballots. *St. Petersburg Times*, December 18, 2000. Available online at www.sptimes.com/News/121800/Hillsborough/When_is_helping_voter.shtml. Accessed May 9, 2005.

Lawyers' Committee for Civil Rights Under Law (LCCRUL). 2002. Plaintiffs Achieve Significant Changes to Florida Election Process in Settlement. *LCCRUL Online*, Press Release, September 4, 2002. Available online at www.lawyerscomm.org/publications/press/press090402.html. Accessed July 24, 2005.

Lewis, C. 2004. The Buying of the President 2004. *HarperCollins Publishers*, New York, NY.

Lichtman, A.J. and L.I. Langbein. 1979. Ecological Inference. *Sage Series on Quantitative Applications in Social Science*, 1978.

Lichtman, A.J. 1991. Passing the Test: Ecological Regression in the Garza Case and Beyond. *Evaluation review*, **15**, 770-799.

Lichtman, A.J. 2001. Report on the Racial Impact of the Rejection of Ballots Cast in the 2000 Presidential Election in the State of Florida. Appendix VII in *Voting Irregularities in Florida During the 2000 Presidential Election - USCCR*, June 25, 2001. Available online at www.usccr.gov/pubs/vote2000/report/appendix/app7.htm. Accessed May 15, 2005.

Lichtman, A.J. 2001b. Supplemental Report on the Racial Impact of the Rejection of Ballots Cast in Florida's 2000 Presidential Election and in Response to the Statement of the Dissenting Commissioners and Report by Dr. John Lott Submitted to the United States Senate Committee on Rules in July 2001. Appendix X in *Voting Irregularities in Florida During the 2000 Presidential Election - USCCR*, June 25, 2001. Available online at www.usccr.gov/pubs/vote2000/report/appendix/app10.htm. Accessed May 15, 2005.

Lindsey, D. 2001. Taking the stand and passing the buck. *Salon*, January 12, 2001. Available online at archive.salon.com/politics/feature/2001/01/12/commission/print.html. Accessed July 24, 2005.

Lott, J. and D. Mustard. 1997. Crime, Deterrence and the Right to Carry Concealed Handguns. *J. Legal St.* **26**, pp 1-68. Available online as of August 10, 2000 at www.journals.uchicago.edu/JLS/lott.pdf.

Lott, J.R. 1998. More Guns, Less Crime: Understanding Crime and Gun Control Laws. *Chicago Press*, Chicago IL. First edition.

Lott, J.R. 2000. More Guns, Less Crime: Understanding Crime and Gun Control Laws. *Chicago Press*, Chicago IL. Second edition with additional analyses. Available online at www.amazon.com/exec/obidos/tg/detail/-/0226493644/ref=pd_sr_ec_cs_b-koth-pa1/104-6943835-1227132?v=glance&s=books&st=*. Accessed August 21, 2005.

Lott, J.R. 2001. Documenting Unusual Declines in Republican Voting Rates in Florida's Western Panhandle Counties in 2000. Unpublished paper, May 2001. Abstract available online at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=276278. Accessed July 30, 2005.

Lott, J.R. 2003. The Bias Against Guns: Why Almost Everything You've Heard About Gun Control Is Wrong. *Regnery Publishing, Inc.* , March 25, 2003. ISBN: 0895261146. Available online at www.amazon.com/exec/obidos/tg/detail/-/0895261146/qid=1124645481/sr=8-2/ref=pd_bbs_2/104-6943835-1227132?v=glance&s=books&n=507846. Accessed August 21, 2005.

Margolick, D., E. Peretz, and M. Shnayerson. 2004. The Path to Florida. *Vanity Fair*, October 2004. Available online at www.makethemaccountable.com/articles/The_Path_To_Florida.htm. Accessed May 29, 2005.

McCullagh, P. and J.A. Nelder. 1989. Generalized Linear Models. *Chapman Hall*, London. Second edition.

McGann, C. 2004. Reed to certify Rossi as winner of governor's race: Democrats struggle to find money for a costly hand recount. *Seattle PI*, November 30, 2004. Available online at http://seattlepi.nwsource.com/local/201689_governor30.html. Accessed September 12, 2005.

McGann, C. 2004b. GOP wants vote data from King County: Party is likely arming itself to challenge Gregoire victory. *Seattle PI*, December 28, 2004. Available online at http://seattlepi.nwsource.com/local/205497_governor28.html. Accessed September 12, 2005.

McGann, C. 2005. Rossi given fresh hope as 'mystery voters' grow: GOP calls on counties to explain a discrepancy of nearly 8,500. *Seattle PI*, January 4, 2005. Available online at http://seattlepi.nwsource.com/local/206446_governor04.html. Accessed July 3, 2005.

Mebane, W.R. 2004. The Wrong Man is President! Overvotes in the 2000 Presidential Election in Florida. *Perspectives on Politics*, September 2004. Available online at http://macht.arts.cornell.edu/wrm1/overvotes.pdf. Accessed May 9, 2005.

Merzer, M. 2001. The Miami Herald Report: Democracy Held Hostage. *New York: St. Martin's Press*, 2001.

Miami Herald. 2000. Sunshine Law was election's biggest winner. *Miami Herald*, December 17, 2000.

Milbank, D. 2000. Fla. Recount Prompts an Outpouring of GOP Activism. *Washington Post*, June 1, 2001.

Mintz, J. 2001. Study: 680 Overseas Ballots Improper Under Fla. Law. *Washington Post*, July 16, 2001.

Mintz, J. and D. Keating. 2000. Florida Black Votes Were More Likely Tossed. *Washington Post*, December 3, 2000.

Mintz, J. and P. Slevin. 2001. Human Factor Was at Core Of Vote Fiasco. *Washington Post*, November 27, 2000.

Mooney, C. 2003. Double Barreled Double Standards. *Mother Jones*, October 13, 2003. Available online at www.motherjones.com/news/feature/2003/10/we_590_01.html. Accessed August 16, 2005.

Morin, R. 2003. Scholar Invents Fan To Answer His Critics. *Washington Post*, February 1, 2003. Available online at www.washingtonpost.com/ac2/wp-dyn/A8884-2003Jan31. Accessed August 21, 2005.

Moss, M. 2000. Contesting the Vote: Martin County Charge of New Irregularities On Absentee Ballot Counts. *New York Times*, November 29, 2000. Available online with subscription at www.nytimes.com/2000/11/29/politics/29MART.html. Accessed May 29, 2005.

Mostert, M. 2002. Could It Be That Florida Democrats Are Too Stupid To Vote? *Toogoodreports.com*, September 18, 2002. Available online at http://toogoodreports.com/column/general/mostert/20020918.htm. Accessed June 21, 2005.

NAACP et al. vs. Katherine Harris et al. (NAACP vs. Harris). 2001. Class Action Complaint: NAACP et al. vs. Katherine Harris et al. *United States District Court, Southern District of Florida*, Case No. 01-CIV-120-GOLD, January 10, 2001. Available online at www.naacpldf.org/content/pdf/harris/NAACP-v-Harris_Complaint.pdf. Accessed July 25, 2005.

NAACP et al. vs. Katherine Harris et al. (NAACP vs. Harris). 2002. Final Settlements with all defendants. *United States District Court, Southern District of Florida*, Case No. 01-CIV-120-GOLD. Summary of settlement terms available from the Lawyers' Committee for Civil Rights Under Law (NCCRUL) at www.lawyerscomm.org/features/summ090402.html, and Settlement Agreements with all defendants available in PDF format form at www.lawyerscomm.org/features/sett090402.html. Accessed July 25, 2005.

Nation. 2001. Absentee Vote Did It for Bush! Say "Thanks Little Bro". *The Nation*, July 15, 2001. Available online at members.tripod.com/~reno4governor/index-30.html. Accessed May 25, 2005.

National Association for the Advancement of Colored people (NAACP). 2001. NAACP Files Florida Voting Rights Lawsuit. *NAACP Online*, Press Release. January 5, 2001. Available online at www.naacp.org/news/2001/2001-01-05-2.html. Accessed June 26, 2005.

National Association for the Advancement of Colored people (NAACP). 2002. Settlement Reached In Florida Election Lawsuit. *NAACP Online*, Press Release. September 3, 2002. Available online at www.naacp.org/news/2002/2002-09-03.html. Accessed May 15, 2005.

National Commission on Federal Election reform (NCFER). 2001. To Assure Pride and Confidence in the Electoral Process. *Miller Center of Public Affairs, University of Virginia; The Century Foundation*. August 2001. Available online at www.tcf.org/list.asp?type=PB&pubid=246. Accessed Sept. 25, 2005.

National Opinion Research Center (NORC). 2001. Florida Ballots Project. *University of Chicago*. Available online at www.norc.uchicago.edu/fl/press.asp. Accessed May 15, 2005.

National Research Council (NRC). 1989. America Becoming: Racial Trends and Their Consequences, Volume 1. *NRC Commission on Behavioral and Social Sciences and Education*, National Academy of Sciences. Jaynes, G.D. and R.M. Williams Jr. eds. Available online at http://books.nap.edu/catalog/1210.html. Accessed June 26, 2005.

National Research Council (NRC). 1990. Inner City Poverty in the United States. *NRC Committee on National Urban Policy*, National Academy of Sciences. Available online at www.nap.edu/catalog/1539.html. Accessed June 26, 2005.

National Research Council (NRC). 2001. America Becoming: Racial Trends and Their Consequences, Volume 1. *NRC Commission on Behavioral and Social Sciences and Education*, National Academy of Sciences. Smelser, N.J., W.J. Wilson, and F. Mitchell eds. Available online at http://www.nap.edu/catalog/9599.html. Accessed June 26, 2005.

Nickens, T. 2001. Lost Votes - Recount Bush: Bush would have won by 493 votes if Supreme Court hadn't intervened. More Floridians wanted Gore, but thousands botched their ballots. *St. Petersburg Times*, November 12, 2001. Available online at www.sptimes.com/News/111201/Lostvotes/Recount__Bush.shtml. Accessed May 9, 2005.

Noe, C. 2000. Comment: Are Democrats Too Stupid to Vote? *Newsmax*, November 10, 2000. Available online at www.newsmax.com/archives/articles/2000/11/9/235713.shtml. Accessed June 21, 2005.

Orzag, P. and J. Orzag. 2000. Statistical Analysis of Palm Beach Vote. *Sebago Associates*, November 8, 2000. Available online at www.sbgo.com/Papers/Election/REVISED%20--%20STATISTICAL%20ANALYSIS%20OF%20VOTE%20IN%20PALM%20BEACH.pdf. Accessed May 9, 2005.

Orzag, P. and J. Orzag. 2000b. A Simple Analysis of Discarded Votes by Palm Beach Precinct. *Sebago Associates*, November 2000. Available online at www.sbgo.com/Papers/Election/ANALYSIS%20OF%20DISCARDED%20VOTES%20BY%20PRECINCT%20IN%20PALM%20BEACH.pdf. Accessed May 9, 2005.

Orzag, P. and J. Orzag. 2000c. Analysis of Votes for Buchanan by Precinct Within Palm Beach and Broward Counties. *Sebago Associates*, November 2000. Available online at www.sbgo.com/Papers/Election/ANALYSIS%20OF%20VOTES%20FOR%20BUCHANAN%20BY%20PRECINCT%20WITHIN%20PALM%20BEACH%20AND%20BROWARD%20COUNTIES.pdf. Accessed May 9, 2005.

Osunami, S. and B. Redecker. 2000. Vocal Support. *ABCNews.com*, November 26, 2000.

Palast, G. 2000. Florida's flawed "voter-cleansing" program. *Salon*, December 4, 2000. Available online at http://dir.salon.com/politics/feature/2000/12/04/voter_file/index.html. Accessed May 15, 2005.

Palast, G. 2001. The Wrong Way To Fix the Vote. *Washington Post*, June 10, 2001.

Palast, G. 2002. The Best Democracy Money Can Buy. *Pluto Press*, ISBN 0745318460. Available online at www.amazon.com/exec/obidos/tg/detail/-/0452285674/qid=1128280163/sr=8-1/ref=pd_bbs_1/102-0918960-1432953?v=glance&s=books&n=507846.

Pierre, R.E. 2001. Botched Name Purge Denied Some the Right to Vote. *Washington Post*, May 31, 2001. Available online at www.washingtonpost.com/ac2/wp-dyn?pagename=article&contentId=A99749-2001May30¬Found=true. Accessed May 15, 2005.

Posner, R.A. 2001. Breaking the Deadlock: The 2000 Election, the Constitution, and the Courts. *Princeton University Press*, Princeton, N.J.

Postman, D. 2005. GOP says November election tainted by fraud. *Seattle Times*, May 18, 2005. Available online at http://seattletimes.nwsource.com/html/localnews/2002278755_election18m.html. Accessed June 15, 2005.

Postman, D. 2005b. Trial judge will have to do the math. *Seattle Times*, June 3, 2005. Available online at http://archives.seattletimes.nwsource.com/cgi-bin/texis.cgi/web/vortex/display?slug=trial03m&date=20050603&query=vance+ballot. Accessed June 15, 2005.

Postman, D. 2005c. Secretary of State's Office is not neutral, GOP says. *Seattle Times*, June 1, 2005. Available online at http://archives.seattletimes.nwsource.com/cgi-bin/texis.cgi/web/vortex/display?slug=trial01m&date=20050601&query=sam+reed. Accessed June 26, 2005.

Postman, D. 2005d. Rossi backers push for revote. *Seattle Times*, January 4, 2005. Available online at http://seattletimes.nwsource.com/html/localnews/2002139731_recount04m.html. Accessed July 3, 2005.

Program on International policy Attitudes (PIPA). 2004. The Separate Realities of Bush and Kerry Supporters. *Center on Policy Attitudes (COPA)*, *Center for International and Security Studies at Maryland (CISSM)*, School of Public Affairs, University of Maryland. October 21, 2004. Available online at www.pipa.org/OnlineReports/Iraq/IraqRealities_Oct04/IraqRealities%20Oct04%20rpt.pdf. Questionaire at www.pipa.org/OnlineReports/Iraq/IraqRealities_Oct04/IraqRealities%20Oct04%20quaire.pdf. Press Release at www.pipa.org/OnlineReports/Iraq/IraqRealities_Oct04/IraqRealities%20Oct04%20pr.pdf. Accessed May 9, 2005.

Reder, S. 1997. Synthetic Estimates of Literacy Proficiency for Small Census Areas. *Portland State University, Portland, OR*, October 1997. Available online at www.casas.org/lit/litdata/reder.pdf. Accessed July 31, 2005.

Resnick, P. 2000. Usability Analysis of the Palm Beach Ballot Controversy. *University of Michigan School of Information*, November 13, 2000. Available online at http://www.si.umich.edu/%7Epresnick/BallotConfusion/. Accessed May 9, 2005.

Roberts, G. 2005. Democrats list 743 felon votes as illegal. *Seattle Post Intelligencer (PI)*, May 7, 2005. Available online at seattlepi.nwsource.com/local/223321_election07.html?searchpagefrom=1&searchdiff=3. Accessed May 9, 2005.

Roberts, G. 2005b. GOP adds to suspect vote list. *Seattle Post Intelligencer (PI)*, May 18, 2005. Available online at http://seattlepi.nwsource.com/local/224730_election18.html?searchpagefrom=1&searchdiff=1. Accessed May 29, 2005.

Roberts, G. 2005c. Pierce had vote foul-up, too. County says 164 unverified provisional ballots were cast. *Seattle Post Intelligencer (PI)*, April 23, 2005. Available online at http://seattlepi.nwsource.com/local/221348_elections23.html?searchpagefrom=2&searchdiff=37. Accessed May 19, 2005.

Roberts, G. 2005d. Pierce County reveals uncounted votes. 50 ballots add to the muddle in election challenge. *Seattle Post Intelligencer (PI)*, April 28, 2005. Available online at http://seattlepi.nwsource.com/local/222007_elections28.html?searchpagefrom=2&searchdiff=32. Accessed May 19, 2005.

Roberts, G. 2005e. Judge upholds Gregoire's election. *Seattle Post Intelligencer (PI)*, June 6, 2005. Available online at http://seattlepi.nwsource.com/local/227307_judgerules06ww.html. Accessed June 6, 2005.

Sanchez, J. 2003. The Mystery of Mary Rosh: How a new form of journalism investigated a gun research riddle. *Reason*, May 2003. Available online at www.reason.com/0305/co.js.the.shtml. Accessed August 21, 2005.

St. Petersburg Times. 2001. Candidates Spread Over Two Pages. *St. Petersburg Times*, November 11, 2001.

Schuessler, A.A. 1999. Ecological inference. *Proc. Natl. Acad. Sci.*, September 14, 1999, **96**, (19): 10578–10581. Available online at www.pubmedcentral.nih.gov/articlerender.fcgi?artid=33746#B4. Accessed July 31, 2005.

Seattle Times. 2005. Toss out felon vote, Gregoire still wins. *Seattle Times*, May 22, 2005. Available online at http://archives.seattletimes.nwsource.com/cgi-bin/texis.cgi/web/vortex/display?slug=felons22m&date=20050522&query=felon. Accessed May 24, 2005.

Seattle Times. 2005b. The math behind the felon-voter analysis. *Seattle Times*, May 23, 2005. Available online at http://archives.seattletimes.nwsource.com/cgi-bin/texis.cgi/web/vortex/display?slug=felonmath&date=20050523&query=felon. Accessed May 24, 2005.

Shane, L. 2005. Washington State, Military Officials Say No Evidence of Ballot Problems Found. *Stars and Stripes European edition*, January 13, 2005. Available online at www.military.com/NewContent/0,13190,SS_011305_Ballot,00.html. Accessed May 15, 2005.

Shapiro, E. 2000. Feed Daily (column). *FEED Magazine*, November 8, 2000. Available online at www.campaignwatch.org/refs5.htm#fe110800.

Sharkansky, S. 2004. Horsing around with statistics. *Sound Politics Online*, December 4, 2004. Available online at http://pqasb.pqarchiver.com/sptimes/506467931.html?MAC=4e7b06f0e7734310acd2ef4c506e30a2&did=506467931&FMT=FT&FMTS=FT&date=Dec+21%2C+2003&author=ADAM+C.+SMITH&printformat=&desc=No+telling+if+voter+rolls+are+ready+for+2004. Accessed August 21, 2005.

Siegel v. LePore. 20005. Siegel, et al., Florida Registered Voters, Plaintiffs/Appellants, and Governor George W. Bush and Dick Cheney, et.al. v. Theresa LePore, et al. County Canvassing Boards of Palm Beach, Miami-Dade, Broward, and Volusia Counties, 00-15981 *United States Court of Appeals, Eleventh Circuit.* November 15, 2000.

Silva, M. and L. Kleindienst. 2001. Scrutiny of Harris' PC hard drives turns up no post-election politics. *Orlando Sentinel*, August 8, 2001. Available online at www.orlandosentinel.com/orl-harris080801.story. Accessed June 26, 2005.

Slevin, P. and J.V. Grimaldi. 2000. Two Absentee Ballot Cases Argued in Fla. Courtrooms. *Washington Post*, December 7, 2000. Available online at www.washingtonpost.com/ac2/wp-dyn?pagename=article&contentId=A35171-2000Dec6¬Found=true. Accessed June 4, 2005.

Smith, A.C. 2003. No telling if voter rolls are ready for 2004. *St. Petersburg Times*, December 21, 2003. Available online at http://pqasb.pqarchiver.com/sptimes/506467931.html?MAC=4e7b06f0e7734310acd2ef4c506e30a2&did=506467931&FMT=FT&FMTS=FT&date=Dec+21%2C+2003&author=ADAM+C.+SMITH&printformat=&desc=No+telling+if+voter+rolls+are+ready+for+2004. Accessed May 9, 2005.

Smith, A.C. and W. Allison. 2002. U.S. backs off election lawsuits: The Justice Department now says it has little evidence that any Floridians were intentionally denied their right to vote. *St. Petersburg Times*, May 29, 2002. Available online at www.sptimes.com/2002/05/29/Worldandnation/US_backs_off_election.shtml. Accessed May 9, 2005.

Stewart, C. 2005. Residual Vote in the 2004 Election. *Caltech/MIT Voting Project*, VTP Working Paper Version 2.3. February 2005. Available online at www.vote.caltech.edu/media/documents/vtp_wp21v2.3.pdf. Accessed Sept. 25, 2005.

Stuart, G. 2004. Databases, Felons, and Voting: Bias and Partisanship of the Florida Felon's List in the 2000 Elections. *Political Science Quarterly*, **119**, 3. Preprint with additional tables available online at www.ksg.harvard.edu/gstuart/Databases,%20Felons,%20and%20Voting.pdf. Final version available online for purchase at www.ingentaconnect.com/content/taps/psq/2004/00000119/00000003/art00003;jsessionid=1l9jivj7w1w1.henrietta#avail. Accessed May 9, 2005.

Tapper, J. 2000. Florida follies. Where every vote counts -- if it belongs to the right candidate. *Salon*, November 21, 2000. Available online at http://archive.salon.com/politics/feature/2000/11/21/military/. Accessed May 9, 2005.

Taylor, S. 2001. Legal Affairs: Finding Racial Bias Where There Was None. *National Journal*, Manhattan Institute. June 9, 2001. Available online at www.manhattan-institute.org/html/_natljournal-legal_affairs.htm. Accessed August 21, 2005.

Thernstrom, A. and R.G. Redenbaugh. 2001. The Florida Election Report: Dissenting Statement by Commissioner Abigail Thernstrom and Commissioner Russell G. Redenbaugh. *U.S. Civil Rights Commission*, August 17, 2001. Available online at http://www.thernstrom.com/pdf/FLelec8-17-01.pdf. Accessed August 21, 2005.

Toobin, J. 2001. Too Close to Call: The Thirty-six Day Battle to Decide the 2000 Election. *Random House*, New York. Available online at www.amazon.com/exec/obidos/tg/detail/-/B000065AK8/qid=1128280274/sr=1-4/ref=sr_1_4/102-0918960-1432953?v=glance&s=books.

Tomz, M. and R.P. Van Houweling. 2003. How Does Voting Equipment Affect the Racial Gap in Voided Ballots? *Am. J. of Pol. Sci.*, **47**, 1, Pg. 46. Available online at www.blackwell-synergy.com/links/doi/10.1111/1540-5907.00004/abs/?cookieSet=1. Accessed May 15, 2005.

U.S. Census Bureau (USCB). 1990. 100 Percent Data Tables from the 1990 Census. *U.S. Census Bureau Online*, 1990 Summary Tape File (STF 1). Indexed and searchable database available at http://factfinder.census.gov/servlet/DTGeoSearchByListServlet?ds_name=DEC_1990_STF3_&_lang=en&_ts=141498800819. Accessed July 31, 2005.

U.S. Commission on Civil Rights (USCCR). 2001. Voting Irregularities in Florida During the 2000 Presidential Election. *U.S. Civil Rights Commission*, Final Report and Recommendations. Available online at http://www.usccr.gov/pubs/vote2000/report/main.htm. Accessed May 9, 2005.

U.S. Commission on Civil Rights (USCCR). 2001b. Status Report on Probe of Election Practices in Florida during the 2000 Presidential Election. *U.S. Civil Rights Commission Online*. Available online at www.usccr.gov/pubs/vote2000/florida.htm. Accessed May 9, 2005.

U.S. Commission on Civil Rights (USCCR). 2002. Voting Rights in Florida 2002: Briefing Summary. *U.S. Civil Rights Commission*. Available online at www.law.umaryland.edu/marshall/usccr/documents/VotingRightsFla02CRbrief.pdf. Accessed June 26, 2005.

U.S. House of Representatives (US House). 1981. Statement of Rep. John Conyers. *127 CONG. REC.*, **23**, 177.

U.S. Senate (US Senate). 1982. Report on Amendment 2 of the Voting Right Act. *S. REP. No. 97-417*, at 206-07. Reprinted in 1982 U.S.C.C.A.N. 375-76.

U.S. House of Representatives (US House). 2001. Income and Racial Disparities in the Undercount in the 2000 Presidential Election. *Committee on Governmental Reform*, July 9, 2001. Available online at www.house.gov/roybal-allard/undercountreport.pdf. Accessed May 15, 2005.

U.S. Department of Justice (USDOJ). 2005. Introduction To Federal Voting Rights Laws: The Voting Rights Act of 1965. *U.S. Department of Justice, Civil Rights Division Online*. Available online at www.usdoj.gov/crt/voting/intro/intro_b.htm. Accessed June 26, 2005.

U.S. Government Accountability Office (USGAO). 2004. Department of Justice's Activities to Address Past Election-Related Voting Irregularities. *U.S. Government Accountability Office*, Report to the Committees on Governmental Affairs, Governmental Reform, and Judiciary. September 14, 2004. Available online at www.gao.gov/new.items/d041041r.pdf. Accessed May 15, 2005.

Violence Policy Center (VPC). 1999. Funder of the Lott CCW Study Has Links to the Gun Industry. *Violence Policy Center*. Available online at www.vpc.org/fact_sht/lottlink.htm. Accessed August 17, 2005.

Wall Street Journal. 2000. GOP Protest in Miami-Dade Is a Well-Organized Effort. *Wall Street Journal*, November 27, 2000.

Wall Street Journal. 2004. Spinning tales about the 2000 election to boost black turnout. *Wall Street Journal*, September 28, 2004. Available online at www.opinionjournal.com/editorial/feature.html?id=110005682. Accessed June 25, 2005.

Wallace-Wells, B. 2003. In the tank: the intellectual decline of AEI - American Enterprise Institute. *Washington Monthly*, Dec 2003. Available online at www.findarticles.com/p/articles/mi_m1316/is_12_35/ai_111897438. Accessed August 21, 2005.

Wand, J.N., K.W. Shotts, J.S. Sekhon, W.R. Mebane, and M.C. Herron. 2000. Voting Irregularities in Palm Beach County. *U.S. Civil Rights Commission*, Final Report and Recommendations. Available online at http://elections.fas.harvard.edu/election2000/palmbeach.pdf. Accessed June 12, 2005.

Wand, J. N., Shotts, K. W., Sekhon, J. S., Mebane, W. R., Herron, M. C., & Brady, H. E. 2001. The Butterfly Did It: The Aberrant Vote for Buchanan in Palm Beach County, Florida. *American Political Science Review*, **95**, pp. 793-810.

Washington Secretary of State's Office (WA Sec. of State). 2004. Washington State 2004 General Elections. Governor. Original Results by County. *WA Secretary of State Online*, 2004. Available at http://vote.wa.gov/general/resultsbycounty.aspx?o=3001&t=s. Accessed May 9, 2005.

Washington Secretary of State's Office (WA Sec. of State). 2004b. Washington State 2004 General Elections. Governor. Machine Recount Results by County. *WA Secretary of State Online*, 2004. Available at http://vote.wa.gov/general/recount_resultsbycounty.htm. Accessed May 9, 2005.

Washington Secretary of State's Office (WA Sec. of State). 2004c. Washington State 2004 General Elections. Governor. Manual Recount Results by County. *WA Secretary of State Online*, 2004. Available at http://vote.wa.gov/general/recount_resultsbycounty.aspx. Accessed May 9, 2005.

Washington Secretary of State's Office (WA Sec. of State). 2004d. Manual Recount Procedures: Washington 2004. *WA Secretary of State Online*, 2004. Available at www.secstate.wa.gov/elections/pdf/Governor%20Manual%20Recount%20Guidelines2.pdf and www.secstate.wa.gov/elections/pdf/Manual%20Recount%20FAQ.pdf. Accessed May 29, 2005.

Washington Secretary of State's Office (WA Sec. of State). 2004e. Washington State 2004 General Elections. Presidential Election Results by County. *WA Secretary of State Online*, 2004. Available at http://vote.wa.gov/general/resultsbycounty.aspx?o=1000&t=f. Accessed August 28, 2005.

Washington Secretary of State's Office (WA Sec. of State). 2004f. Washington State 2004 General Elections. Senatorial Election Results by County. *WA Secretary of State Online*, 2004. Available at http://vote.wa.gov/general/resultsbycounty.aspx?o=1112&t=f. Accessed August 28, 2005.

Washington Secretary of State's Office (WA Sec. of State). 2004g. Washington State 2004 General Elections. Status of Voter Turnout & Ballot Tabulation by County. *WA Secretary of State Online*, 2004. Available at http://vote.wa.gov/general/status.aspx. Accessed September 4, 2005.

Washington Secretary of State's Office (WA Sec. of State). 2005. Federal Election Survey data for the Fall 2004 Washington State election. Provided in spreadsheet form via personal communication with the Washington Secretary of State's office. May, 16, 2005.

Washington Secretary of State's Office (WA Sec. of State). 2005b. Certifications of Voting Systems. *WA Secretary of State Online*, 2005b. Available at http://www.secstate.wa.gov/elections/votingsystems.aspx. Accessed August 31, 2005.

Weaver, J. and T. Henderson. 2001. Panel's conclusions may have overstated findings. *Miami Herald*, June 6, 2001. Available online at www.freerepublic.com/perl/redirect?u=http://www.miami.com/herald/content/news/local/florida/digdocs/091424.htm. Accessed June 26, 2005.

Weisberg, S. 1985. Applied Linear Regression. *John Wiley and Sons*, New York, 1985.

Wikipedia Online. 2005. Florida Central Voter File. Available online at http://en.wikipedia.org/wiki/Florida_Central_Voter_File. Accessed May 9, 2005.

Wikipedia Online. 2005b. U.S. presidential election, 2000. Available online at www.answers.com/topic/u-s-presidential-election-2000. Accessed May 17, 2005.

Wikipedia Online. 2005c. Choicepoint. Available online at http://en.wikipedia.org/wiki/Choicepoint. Accessed May 17, 2005.

Wikipedia Online. 2005d. Voting Rights Act. Available online at http://en.wikipedia.org/wiki/Voting_Rights_Act. Accessed June 26, 2005.

Wikipedia Online. 2005e. John Lott. Available online at http://en.wikipedia.org/wiki/John_Lott. Accessed August 17, 2005.

Wolter, K., D. Jergovic, W. Moore, J. Murphy, C. O'Muircheartaigh. 2003. Reliability of the Uncertified Ballots in the 2000 Presidential Election in Florida. *Amer. Statistician*, **57**, 1. Pgs. 1-14. Available online at www.amstat.org/misc/PresidentialElectionBallots.pdf. Accessed May 17, 2005.

Figure 1: Washington 2004 vs. Florida 2000

	Gregoire/Rossi 2004	Bush/Gore 2000	Notes
Total Ballots	2,885,001	5,963,110	WA Count: (WA Secretary of State's Office, 2005) FL Count: (Federal Elections Commission, 2001)
Final Victory Margin	129	195 (537 certified)	WA Count: (WA Secretary of State's Office, 2004c) FL Count: (Federal Elections Commission, 2001; Nickens, 2001)
Probability of Statistically Insignificant Result	92%	93%	Proportional Two-Tailed T-Test assuming gaussian distributions and final recount totals and margins as cited above.
Total Rejected Ballots	70,130-73,964[1]	175,010-179,855	WA Count: (WA Sec. of State, 2004b; 2004g; King Cty. RELS, 2004) FL Count: (Lantigua, 2001; Nickens, 2001; NORC, 2001; Keating, 2002)
Rejected Ballots with Discernable Voter Intent	None Verified	64,880[2]	WA: WA Sec. of State, 2005) FL: (Nickens, 2001; NORC, 2001; Keating, 2002)
Legal Voters Wrongfully Designated as Felons	At least 199[3]	8,648-55,926 (Possible)[4] 12,023 (Probable)[4]	WA: (Seattle Times, 2005; 2005b) FL: (USCCR, 2001; Stuart, 2004; Hiaasen et al., 2001; Smith, 2003)
Actual Felon Voters	1,677 (Claimed)[3] Fewer than 1,541 (Probable)[3]	2,840-12,771 (Possible)[5] 5,490-7,850 (Probable)[5]	WA Count: (Seattle Times, 2005; 2005b) FL: (USCCR, 2001; Kissell, 2002; Stuart, 2004; Lewis, 2004; Merzer, 2001; Wikipedia, 2005; Palast, 2001; 2002)
Legal Voters Denied Voting Rights due to Wrongful Felon Listing	None Verified[3]	1,100-9,880 (Possible)[6] 5,500-6,350 (Probable)[6]	WA: (Seattle Times, 2005; 2005b) FL: (USCCR, 2001; Stuart, 2004; Hiaasen et al., 2001)
Mishandled or Illegally Submitted Ballots	2,816[7]	1,465 (Minimum)[8] Hundreds to Thousands more probable[8]	WA: (Ervin, 2005; 2005b; Roberts, 2005c; 2005d) FL: (Imai & King, 2002; Barstow and Van Natta, 2001; Mintz, 2001; Garcia & Dubocq, 2000; LaPeter & Ryan, 2000; Gold, 2000; Freedburg & LaPeter, 2000; Damron & Roy, 2000)

Deliberately Altered Ballots	None Verified[3]	2,632 (Minimum)[9] Hundreds to Thousands more probable[9]	WA: (Seattle Times, 2005; 2005b) FL: (Tapper, 2000; Damon & Roy, 2001; Moss, 2000; Shapiro, 2000; Bailey, 2000; Earlandson, 2000)
Evidence of Racial Biases	None Verified	Widespread and statistically significant[10]	FL: (Stuart, 2004; USCCR, 2001; Hiaasen et al., 2001; USCCR, 2001; 2001b; Lantigua, 2001; US House, 2001; Nickens, 2001; Wikipedia, 2005; 2005c; Balkin & Levinson, 2001; Lichtman, 2001; 2001b; NORC, 2001; Bousquet, 2002; Klinker, 2001; Herron & Sekhon, 2003; Mebane, 2004; Mintz and Keating, 2000; Bonner & Barbanel, 2000; Brady, 2000; St. Petersburg Times, 2001; Tomz & Van Houweling, 2003; Keating & Mintz, 2000; 2001; Kelly, 2002; Palast, 2000; Pierre, 2001; Karlan, 2001)
Election Oversight Activities by Secretary of State and Government Officials Demonstrating Conflict of Interest and/or Negligence	None verified[11]	**a)** Katherine Harris' active involvement with the Florida Bush Campaign while in office and up to the day before the election including serving as a Bush Campaign co-chair, ongoing collaboration with Republican Party advisors, and even housing them during the campaign. **b)** Harris' use of government resources and taxpayer funds to support the Bush Campaign. **c)** Harris' use of the office of Secretary of State to steer the election toward Bush by attempting to certify the vote before lawful court challenges and due process had concluded. **d)** Harris' use of the office of Secretary of State to steer the election toward Bush by attempting to block all recount efforts in opposition to state Supreme Court mandates. **e)** Harris' use of the office of Secretary of State to steer the election toward Bush by using her legal staff and state resources to litigate on behalf of Bush alone. **f)** Use of the Governor's office for Republican campaigning, including the use of one or more versions of the Florida State Seal. **g)** Relaxation of the felon list standards by Harris and the FDE after having been shown evidence	FL: (Kissell, 2002; Lantigua, 2001; Date, 2001; Pierre, 2001; Nickens, 2001; Silva and Kleindienst, 2001; Karlan, 2001; Palast, 2000; 2001; 2002; Lewis, 2004; Wikipedia, 2005b)

		that false positives would be significantly increased and the impact would fall disproportionately on Democrat voters. **h)** Destruction and/or alteration of potentially incriminating office documents when confronted with investigations of election oversight activities.	
Partisan Intimidation and/or Violence	One death threat made against Christine Gregoire by a disgruntled Rossi supporter.	The Bush Campaign's organization of a mob that stormed the Palm Beach County election headquarters in an attempt to shut down a State Supreme Court authorized recount, including trapping election workers behind locked doors, and the use of campaign funds and onsite staff to organize the logistics. Numerous threats of violence made, several physical assaults known to have occurred. One Democratic elections office worker injured. Incident videotaped by CNN.	WA: (Ammons, 2005) FL: (Kulish and Vandehei, 2000; Margolick et al., 2004; Filkens & Canedy, 2000; Osunami & Redecker, 2000; Milbank, 2000; Gigot, 2000; Wikipedia, 2005b)

1) Residuals for the Gregoire/Rossi race are taken from the Secretary of State's data. The "raw" residual rate is simply the difference between the totals for the machine recount for all candidates and all ballots cast. These figures do not include write-ins, which I was only able to obtain for King County. The maximum shown here is based on the raw rate with King County write-ins removed. The minimum assumes the raw rate minus the King County fractional write-in rate applied to all ballots cast. The actual figure is likely to be between these values.

2) Based on combined undervotes and overvotes determinedly by the NORC (2001) to meet some or all Florida county level standards for determining voter intent.

3) Based on the combined Republican and Democrat felon lists for Washington State as of May 22, 2005 and conservatively assuming no overlap in the lists. A total of 1,740 names statewide were provided (946 listed by Republicans and 794 by Democrats) with the majority of the Republican list coming from King and other pro-Gregoire counties and the Democrat list coming predominately from Rossi counties. By May 21, 2005 the Republican list had been reduced to 883 giving the 1,677 figure cited here (Seattle Times, 2005). The Seattle Times conducted a 3 month study of the original 1,740 name total using data from the Washington State Patrol, Dept. of Corrections, and county court record for a subsampled list of 289 names from the Republican list. Of the subsampled group, 33 were identified as erroneously listed. Extrapolating to the larger sample gives an estimated error rate of 11.4 percent for the original combined list (Seattle Times, 2005; 2005b). The Possible felon figure conservatively assumes that all remaining names on the May 21 combined list are valid listings and the Probable figure assumes the Times estimated error rate applied to the 1,740 name list from which the subsample used for its calculation was taken. Wrongful felon status figures are calculated in an analogous manner. One important difference between this list and its Florida 2000 counterpart is that everyone listed in Washington *did actually vote*. Therefore, the actual disenfranchisement of wrongfully listed voters will only impact those whose names remained on the list when the final tally of felons was removed from the 2004 count.

4) The year 2000 Florida felon list was derived from comparisons between the January 2000 Florida Central Voter File and FDLE and Motor Vehicle Dept. records, with FDLE records providing the bulk of the data--39,259 out of 42,322 records on the fall 2000 list used on Election Day Stuart, 2004). Comparisons were based on 80+ percent match to name and matches to approximate birthday, actual or derived Social Security Number (SSN), death records and a few other metrics. The combined year 1999 and 2000 list on file with FDE contains some 57,000 total unique records (Stuart, 2004; Wikipedia, 2005b). Its true error rate may never be known, but the 3 best estimates are based on post election comparisons with exact matches of Social Security Number name and birthdate, and more rigorous examinations of Florida state records. These yield error rates ranging from 15 to 97 percent--the higher being based on a July 2002 ChoicePoint re-analysis using exact name and SSN matches to a larger list of possible felons (Kissell, 2002) and a post election screening by Leon county of all ballots and listed names (Wikipedia, 2005c), and the lower on county record comparisons after the election. Most fall between 20 and 30 percent (Stuart, 2004; Smith, 2003; Kissell, 2002; Palast, 2000; 2001; Wikipedia, 2005). What is likely the best analysis yet was done in 2003 using the revamped and more

rigorous Florida felon screening standards applied to the total FDE felon list which yielded a figure of 21 percent (Smith, 2003). ChoicePoint has admitted to an error rate of at least 15 percent, which agrees reasonably well with the lower range of these figures (Palast, 2001; Balkin & Levinson, 2001; Smith, 2003).

5) Possible and probable estimates for actual felon voters are derived from comparisons of the April 2001 Florida Central Voter File with the year 2000 felon list as reported by Stuart (2004). Names present on both lists are voters listed as felons who were retained on the CVF by county supervisors on Election Day. Post Election Day surveys provide data on actual felon purge rates for counties that did and did not use the list (Stuart, 2004). Independently, the Palm Beach Post conducted a computer match study that found exact matches between FDLE records and the felon list that identified 5,683 names of people who voted that were exact matches between the two (Hiaasen et al., 2001). The USCCR (2001) conducted a study of the FDLE records used by Database Technologies (DBT) to generate the felon list. Based on FDLE's checks of 13,190 of their own records and inquiries to 5,000 of those listed, they found error rates ranging from 19 percent assuming that all who responded were actual felons (very conservative) to 50 percent assuming that the error rate among the 5000 people who responded to inquiries was representative of the list as a whole (very likely given the sample size and random record selection). Possible and Probable felon voter numbers reported here assume the following. LOW END: The highest estimated error rate for the FDLE list applied to the 5,683 listings found by the Palm Beach Post. This figure is smaller than the same error rate applied to the total of all non-purged records from counties that did *not* use the felon list and is therefore conservative; HIGH END: The lowest estimated error rate for FDLE records applied to all non-purged records from counties that did not use the felon list, assuming conservatively that no actual felons were not purged in counties that did use it; PROBABLE: Same as the HIGH END estimate but using median to most probable FDLE record error rates (35-50 percent).

6) Possible and Probable estimates of legal voters actually disenfranchised by a felon listing were calculated in a similar manner to that described above for actual felon voters but with the following assumptions. LOW END: An estimate reached by the Palm Beach Post from a comparison of FDLE records with the felon list and a selection of polling place records under some conservative assumptions (Hiaasen et al., 2001). HIGH END: The highest estimated error rate for the FDLE list (50 percent) applied to all purged records from the election, assuming that screening of the felon list for erroneous records by counties that used it was 100 percent accurate. The high end estimate of 97 percent for the felon list error rate (Kissell, 2002) was not used, again on the presumption that error screening by list users corrected many of these errors (only 2 counties are known to have used the list unquestioningly). PROBABLE: The most probable estimated error rate for the felon list (25 percent) applied to purged records from counties that used it, plus the median to most probable error estimates for the FDLE list (35-50 percent) applied to the purged records of counties that did not use the felon list. In this case the most probable felon list error rate *was* assumed for its users without regard to error screening because this yields a lower estimate than would the median FDLE list error rate, and is therefore conservative. All of these estimates assume that FDLE records were the main source of Election Day cross-checks of the felon list.

7) Includes ballots lost or counted illegally whether intentional or not. Does not include ballots discarded due to wrongful felon status (tracked separately) or ballots rejected where there was evidence of voter intent (also tracked separately). As these tallies are for *reported* instances only, they represent lower bounds and actual totals may be higher. All but 145 are absentee and provisional ballots counted without proper signature verification. Though required procedures were not followed, most were later found to be otherwise legitimate votes. The remaining 145 were unopened provisional ballots discovered after the election. The Possible figure includes another 566 ballots known to have been miscounted in 2 of the 3 counts. These however were not verified in that they were counted at least once and it has not been determined that this didn't happen in the final manual recount. Of these, the large majority were counted and not disenfranchised in any way. By the election challenge trial only 137 of these were verified as illegal. These and the 1,541 known felon votes brought the total illegal vote count to 1,678 (Brunner, 2005).

8) Includes the counting of ballots with late, illegible, or missing postmarks, ballots received after deadline, ballots from unregistered voters, ballots from dead voters, unsigned and/or unwitnessed ballots, and double ballots from voters known to have voted twice due to erroneous absentee ballot mailings or polling place recording errors. The figure cited reflects numerically verified instances only. Hundreds, and perhaps even thousands more are known to have occurred but lack verified counts. In Bay County for instance, "handfuls" of illegal ballots, and in at least one case an entire *suitcase full*, are known to have been turned in and counted (Slevin and Grimaldi, 2000).

9) Includes ballots where poll workers added missing information required by law, corrected ballots already submitted, and duplicated ballots. Any of these could have resulted from carelessness or misunderstanding of Florida law as well as overt election fraud. Duplicated ballots are allowed by Florida and Washington State law for the recovery of ballots that are unreadable by machines due to their having been damaged in handling. These account for the entire Washington State total reported here. This figure represents ballots recovered in King County during the machine recount and is a minimum because data for other counties was not available to me. The maximum represents King County's ballot recovery rate extrapolated to the entire state count (WA Sec. of State, 2004g; Sharkansky, 2004). Virtually all ballot alteration in Washington's fall 2004 election was for this purpose. As of this writing no evidence of any specific incident of ballots having been altered in the Gregoire/Rossi race for fraudulent or partisan reasons has ever been presented--only allegations. In 2000 Florida's standards for what constituted "damage" and "alteration" were fairly loose and left the door wide open for potential fraud. Lawsuits against Seminole and Martin counties were later dismissed on the grounds that there was no evidence of "intentional" fraud, that the legal definitions of ballot tampering were vague enough to allow the alterations that are known to have occurred (specifically, voter numbers), and that the elimination of all potentially affected ballots would have disenfranchised too many legitimate votes. But no one disputes that ballot

tampering occurred, that the law was at least stretched if not broken, and that opportunity and motive for fraud were significant. In the case of Seminole and Martin Counties this is known to have been done selectively to Republican ballots only and not to Democrat ones despite the known existence of similarly damaged Democrat ballots and clear requests by Democrat election workers for their ballots to be included (Gold, 2000; Tapper, 2000; Moss, 2000; Shapiro, 2000; Bailey, 2000; Earlandson, 2000). Nothing comparable to this is known to have happened in Washington in the Gregoire/Rossi runoff.

10) Racial bias includes any factor known to have correlated either positively or negatively with race and does not imply intentional racist actions. Biases reported here may result from socio-economic factors, literacy rates, state, county, or precinct level funding, demographics, or any of a number of other variables. In some cases it has been shown to be a direct result of policy decisions that may reflect subtly racist attitudes or views, but there is little evidence that these were overtly racist in intent. The U.S. Department of Justice found no evidence for *intentionally* racist activity in their investigations of Florida 2000, and neither did the U.S. Commission on Civil Rights (Boyd, 2002; USCCR, 2001). But Florida state elections policy and the Federal Voting Rights Act of 1965 cover *subtle* as well as overt racist biases and do not require a demonstration of intent as proof of racial disenfranchisement (USCCR, 2001; 2001b). In 2003 the NAACP won their racial disenfranchisement case against the state of Florida--one of the largest in U.S. history--and this led to sweeping reforms of county and state level election policies and equipment and training upgrades (NAACP, 2002; USGAO, 2004). Nothing comparable happened in Washington in 2004.

11) Negligence as I have used it here, presumes *deliberate intent or evidence of neglect and/or rationalization* as opposed to honest mistakes. A key determinant in this is the presence of foreknowledge of the impacts where someone's personal benefit is involved. Misplacing ballots for instance, would be considered as ordinary human error unless there was clear evidence of premeditation or cover-up, even if the mistakes were egregious. On the other hand, using the legal resources and political powers of the Secretary of State's office to lobby for a particular candidate, using government offices and/or resources for a candidate's campaign effort, or relaxing felon list requirements even after having been shown that a significant increase in false positives against legitimate voters would result, would all constitute negligence. It's unreasonable to presume that the Secretary of State would be unaware that neutrality and a guarantee of due process for *all* candidates is a basic professional and ethical duty of his/her office, or that a potentially disenfranchising felon list policy could be implemented innocently by someone after data clearly demonstrating the impact had been provided to them. By themselves, actions like these do not prove a *deliberate plot* to steal an election. But when they benefit a preferred candidate, as with Bush and Katherine Harris in Florida 2000, they are not likely to be innocent and a charge of negligence or dereliction of duty is appropriate.

Figure 2: Washington 2004 Gubernatorial Base Count & Machine Recount

County	Christine Gregoire(D) (Recount | Base | Gain/Loss)			Dino Rossi(R) (Recount | Base | Gain/Loss)			Ruth Bennett(L) (Recount | Base | Gain/Loss)		
Adams	1529	1517	+12	3486	3459	+27	81	79	+2
Asotin	3525	3524	+1	4904	4905	-1	193	193	0
Benton	19831	19830	+1	44890	44888	+2	1118	1119	-1
Chelan	10077	10074	+3	18437	18436	+1	523	523	0
Clallam	16226	16225	+1	18832	18831	+1	919	919	0
Clark	72800	72797	+3	85894	85887	+7	4123	4123	0
Columbia	671	670	+1	1370	1370	0	37	37	0
Cowlitz	20207	20236	-29	20047	20087	-40	1093	1094	-1
Douglas	4359	4357	+2	8666	8662	+4	219	218	+1
Ferry	1278	1275	+3	1900	1898	+2	118	118	0
Franklin	4967	4968	-1	10619	10618	+1	227	226	+1
Garfield	428	427	+1	840	839	+1	25	25	0
Grant	7826	7800	+26	17429	17385	+44	535	534	+1
Grays Harbor	13719	13713	+6	13449	13444	+5	575	575	0
Island	16888	16888	0	19997	19992	+5	814	814	0
Jefferson	10642	10641	+1	7289	7293	-4	466	465	+1
King	505836	505243	+593	351127	350779	+348	18936	18906	+30
Kitsap	56164	56149	+15	57693	57712	-19	3090	3097	-7
Kittitas	6125	6106	+19	9567	9541	+26	277	275	+2
Klickitat	3919	3919	0	4767	4766	+1	265	265	0
Lewis	10245	10243	+2	20842	20838	+4	756	756	0
Lincoln	1850	1850	0	3686	3685	+1	100	100	0
Mason	11788	11787	+1	12507	12505	+2	682	681	+1
Okanogan	6101	6100	+1	9450	9451	-1	465	465	0
Pacific	5210	5209	+1	4730	4730	0	295	295	0
Pend Oreille	2567	2561	+6	3366	3364	+2	179	179	0
Pierce	145199	144957	+242	157704	157443	+261	7241	7230	+11
San Juan	5872	5872	0	3660	3661	-1	321	320	+1
Skagit	23266	23195	+71	27224	27135	+89	1267	1260	+7

Skamania	2232	2232	**0**	2522	2522	**0**	178	178	**0**
Snohomish	139070	138939	**+131**	145553	145423	**+130**	6852	6842	**+10**
Spokane	90573	90452	**+121**	105569	105435	**+134**	3878	3872	**+6**
Stevens	6992	6992	**0**	12293	12293	**0**	566	566	**0**
Thurston	58955	58953	**+2**	49413	49409	**+4**	2574	2574	**0**
Wahkiakum	993	993	**0**	1100	1099	**+1**	61	61	**0**
Walla Walla	8006	7947	**+59**	14277	14240	**+37**	381	376	**+5**
Whatcom	44056	44053	**+3**	41978	41978	**0**	2177	2177	**0**
Whitman	7715	7724	**-9**	9363	9367	**-4**	457	458	**-1**
Yakima	24735	24735	**0**	46044	46044	**0**	1351	1351	**0**
Totals	**1372442** *(48.8702%)*	**1371153** *(48.8666%)*	**+1289**	**1372484** *(48.8717%)*	**1371414** *(48.8759%)*	**+1070**	**63415** *(2.2581%)*	**63346** *(2.2576%)*	**+69**

Counties using optical scan systems
Counties using punch-card systems

Results as of November 24, 2004. Gain/Loss figures were only available for counties with 100% of precincts reporting. Taken from WA Sec. of State, 2004b.

Figure 3: Washington 2004 Gubernatorial Manual Recount

County	Christine Gregoire(D) (2nd Machine | Manual | Gain/Loss)			Dino Rossi(R) (2nd Machine | Manual | Gain/Loss)			Ruth Bennett(L) (2nd Machine | Manual | Gain/Loss)		
Adams	1,529	1,529	0	3,481	3,486	-5	81	81	0
Asotin	3,530	3,525	+5	4,914	4,904	+10	193	193	0
Benton	19,834	19,831	+3	44,895	44,890	+5	1,118	1,118	0
Chelan	10,077	10,077	0	18,438	18,437	+1	523	523	0
Clallam	16,230	16,226	+4	18,836	18,832	+4	920	919	+1
Clark	72,828	72,800	+28	85,924	85,894	+30	4,123	4,123	0
Columbia	671	671	0	1,371	1,370	+1	37	37	0
Cowlitz	20,204	20,207	-3	20,045	20,047	-2	1,094	1,093	+1
Douglas	4,360	4,359	+1	8,667	8,666	+1	219	219	0
Ferry	1,278	1,278	0	1,900	1,900	0	118	118	0
Franklin	4,977	4,967	+10	10,634	10,619	+15	227	227	0
Garfield	428	428	0	840	840	0	25	25	0
Grant	7,821	7,826	-5	17,431	17,429	+2	535	535	0
Grays Harbor	13,729	13,719	+10	13,457	13,449	+8	575	575	0
Island	16,895	16,888	+7	20,000	19,997	+3	814	814	0
Jefferson	10,650	10,642	+8	7,295	7,289	+6	466	466	0
King	506,194	505,836	+358	351,306	351,127	+179	18,952	18,936	+16
Kitsap	56,236	56,164	+72	57,775	57,693	+82	3,097	3,090	+7
Kittitas	6,125	6,125	0	9,567	9,567	0	277	277	0
Klickitat	3,919	3,919	0	4,767	4,767	0	265	265	0
Lewis	10,247	10,245	+2	20,851	20,842	+9	757	756	+1
Lincoln	1,850	1,850	0	3,686	3,686	0	100	100	0
Mason	11,797	11,788	+9	12,519	12,507	+12	680	682	-2
Okanogan	6,107	6,101	+6	9,460	9,450	+10	468	465	+3
Pacific	5,210	5,210	0	4,730	4,730	0	296	295	+1
Pend Oreille	2,567	2,567	0	3,368	3,366	+2	179	179	0
Pierce	145,431	145,199	+232	157,905	157,704	+201	7,255	7,241	+14
San Juan	5,872	5,872	0	3,660	3,660	0	320	321	-1
Skagit	23,250	23,266	-16	27,219	27,224	-5	1,264	1,267	-3

Skamania	2,233	2,232	**+1**	2,525	2,522	**+3**	178	178	**0**
Snohomish	139,189	139,070	**+119**	145,628	145,553	**+75**	6,861	6,852	**+9**
Spokane	90,581	90,573	**+8**	105,584	105,569	**+15**	3,881	3,878	**+3**
Stevens	6,992	6,992	**0**	12,295	12,293	**+2**	566	566	**0**
Thurston	58,970	58,955	**+15**	49,426	49,413	**+13**	2,575	2,574	**+1**
Wahkiakum	993	993	**0**	1,099	1,100	**-1**	61	61	**0**
Walla Walla	8,008	8,006	**+2**	14,290	14,277	**+13**	378	381	**-3**
Whatcom	44,072	44,056	**+16**	42,000	41,978	**+22**	2,179	2,177	**+2**
Whitman	7,722	7,715	**+7**	9,365	9,363	**+2**	457	457	**0**
Yakima	24,755	24,735	**+20**	46,079	46,044	**+35**	1,351	1,351	**0**
Totals	**1,373,361** (*48.8730%*)	**1,372,442** (*48.8702%*)	**+919**	**1,373,232** (*48.8685%*)	**1,372,484** (*48.8717%*)	**+748**	**63,465** (*2.2585%*)	**63,415** (*2.2581%*)	**+50**

Counties using optical scan systems
Counties using punch-card systems

Results as of December 23, 2004. Gain/Loss figures were only available for counties with 100% of precincts reporting. Taken from WA Sec. of State, 2004c.

Figure 4: Washington 2004 Tabulation Invalidation

County	Base Count		Machine Recount		Tabulation Change		Tabulation Invalidation	
	Rossi	Gregoire	Rossi	Gregoire	Rossi	Gregoire	Rossi	Gregoire
Adams	3459	1517	3486	1529	27	12	0.7806	0.7910
Asotin	4905	3524	4904	3525	-1	1	0.0204	0.0284
Benton	44888	19830	44890	19831	2	1	0.0045	0.0050
Chelan	18436	10074	18437	10077	1	3	0.0054	0.0298
Clallam	18831	16225	18832	16226	1	1	0.0053	0.0062
Clark	85887	72797	85894	72800	7	3	0.0082	0.0041
Columbia	1370	670	1370	671	0	1	0.0000	0.1493
Cowlitz	20087	20236	20047	20207	-40	-29	0.1991	0.1433
Douglas	8662	4357	8666	4359	4	2	0.0462	0.0459
Ferry	1898	1275	1900	1278	2	3	0.1054	0.2353
Franklin	10618	4968	10619	4967	1	-1	0.0094	0.0201
Garfield	839	427	840	428	1	1	0.1192	0.2342
Grant	17385	7800	17429	7826	44	26	0.2531	0.3333
Grays Harbor	13444	13713	13449	13719	5	6	0.0372	0.0438
Island	19992	16888	19997	16888	5	0	0.0250	0.0000
Jefferson	7293	10641	7289	10642	-4	1	0.0548	0.0094
King	350779	505243	351127	505836	348	593	0.0992	0.1174
Kitsap	57712	56149	57693	56164	-19	15	0.0329	0.0267
Kittitas	9541	6106	9567	6125	26	19	0.2725	0.3112
Klickitat	4766	3919	4767	3919	1	0	0.0210	0.0000
Lewis	20838	10243	20842	10245	4	2	0.0192	0.0195
Lincoln	3685	1850	3686	1850	1	0	0.0271	0.0000
Mason	12505	11787	12507	11788	2	1	0.0160	0.0085
Okanogan	9451	6100	9450	6101	-1	1	0.0106	0.0164
Pacific	4730	5209	4730	5210	0	1	0.0000	0.0192
Pend Oreille	3364	2561	3366	2567	2	6	0.0595	0.2343
Pierce	157443	144957	157704	145199	261	242	0.1658	0.1669
San Juan	3661	5872	3660	5872	-1	0	0.0273	0.0000

Skagit	27135	23195	27224	23266	89	71	0.3280	0.3061
Skamania	2522	2232	2522	2232	0	0	0.0000	0.0000
Snohomish	145423	138939	145553	139070	130	131	0.0894	0.0943
Spokane	105435	90452	105569	90573	134	121	0.1271	0.1338
Stevens	12293	6992	12293	6992	0	0	0.0000	0.0000
Thurston	49409	58953	49413	58955	4	2	0.0081	0.0034
Wahkiakum	1099	993	1100	993	1	0	0.0910	0.0000
Walla Walla	14240	7947	14277	8006	37	59	0.2598	0.7424
Whatcom	41978	44053	41978	44056	0	3	0.0000	0.0068
Whitman	9367	7724	9363	7715	-4	-9	0.0427	0.1165
Yakima	46044	24735	46044	24735	0	0	0.0000	0.0000

Overall County & State Averages

	County Level		Population Weighted	
Optical Scan Counties	0.1164	0.1531	0.1100	0.1195
Punch-Card Counties	0.0103	0.0105	0.0075	0.0062
Statewide per Candidate	0.0864	0.1129	0.0882	0.0997
Overall		**0.0997**		**0.0940**

Counties using optical scan systems
Counties using punch-card systems

Results as of November 24, 2004. Gain/Loss figures were only available for counties with 100% of precincts reporting. Taken from WA Sec. of State, 2004b.

Figure 5: Washington 2004 Federal Election Survey

County	Total Counted Ballots	Absentee Ballots Returned	Absentee Ballots Counted	Provisional Ballots Cast	Provisional Ballots Counted	Presidential Race Undervotes	Presidential Race Overvotes	Senatorial Race Undervotes	Senatorial Race Overvotes	Residual Vote (Percent)
Adams	5,204	566,291	565,014	32,996	28,010	68	0	17,760	63	1.307
Asotin	8,961	94,442	93,293	2,819	2,065	0	53	2,120	32	0.591
Benton	67,690	8,877	8,821	870	453	533	268	284	0	1.183
Chelan	29,618	3,994	3,976	189	114	162	25	283	0	0.631
Clallam	37,362	32,766	32,596	221	132	482	114	1,013	45	1.595
Clark	172,277	4,544	4,540	80	70	935	586	118	15	0.883
Columbia	2,145	17,675	17,594	754	630	35	0	738	48	1.632
Cowlitz	42,723	VBM	16,550	106	63	248	45	514	32	0.686
Douglas	13,483	7,169	7,085	159	104	100	NOT REPORTED	328	22	0.742
Ferry	3,385	VBM	6,261	17	7	37	4	123	NOT REPORTED	1.211
Franklin	16,523	248,748	254,555	11,196	9,203	134	222	6,593	84	2.155
Garfield	1,331	6,888	6,860	87	29	10	0	223	1	0.751
Grant	26,263	30,739	30,523	1,536	1,228	136	69	848	4	0.781
Grays Harbor	28,258	VBM	5,167	40	26	205	55	168	1	0.920
Island	39,076	194,923	194,019	9,234	6,937	388	108	4,715	40	1.269
Jefferson	18,772	133,081	131,172	5,681	4,053	109	13	3,053	39	0.650
King	899,199	10,632	10,599	744	560	3,390	120	466	36	0.390
Kitsap	119,443	84,765	84,255	4,937	4,166	641	147	2,898	202	0.660
Kittitas	16,253	1,669	1,665	22	18	106	0	86	0	0.652
Klickitat	9,309	15,366	15,249	473	342	59	1	581	7	0.645
Lewis	32,948	67,037	66,673	4,266	3,214	371	146	2,685	118	1.569
Lincoln	5,900	6,538	6,244	1,522	783	71	18	392	0	1.508
Mason	25,839	54,719	54,410	2,870	2,383	362	80	1,394	13	1.711
Okanogan	16,613	566,291	565,014	32,996	28,010	207	65	17,760	63	1.637
Pacific	10,620	94,442	93,293	2,819	2,065	134	55	2,120	32	1.780
Pend Oreille	6,268	8,877	8,821	870	453	52	NOT REPORTED	284	0	0.830
Pierce	317,012	3,994	3,976	189	114	2,138	1,071	283	0	1.012
San Juan	10,145	32,766	32,596	221	132	43	2	1,013	45	0.444
Skagit	52,705	4,544	4,540	80	70	254	24	118	15	0.527

Skamania	5,193	17,675	17,594	754	630	32	2	738	48	0.655
Snohomish	297,187	VBM	16,550	106	63	1,296	258	514	32	0.523
Spokane	203,886	7,169	7,085	159	104	804	195	328	22	0.490
Stevens	20,606	VBM	6,261	17	7	175	91	123	NOT REPORTED	1.291
Thurston	113,996	248,748	254,555	11,196	9,203	881	319	6,593	84	1.053
Wahkiakum	2,255	6,888	6,860	87	29	19	0	223	1	0.843
Walla Walla	23,269	30,739	30,523	1,536	1,228	231	77	848	4	1.324
Whatcom	91,515	VBM	5,167	40	26	838	265	168	1	1.205
Whitman	18,122	194,923	194,019	9,234	6,937	98	0	4,715	40	0.541
Yakima	73,647	133,081	131,172	5,681	4,053	668	74	3,053	39	1.008
Totals										
Statewide	2,885,001	1,916,812	1,982,457	93,781	74,100	16,452	4,572	59,927	1,379	
Optical Scan Counties						11,630	2,361	44,075	442	
Punch-Card Counties						4,822	2,211	15,852	937	
State Residual Vote Rates (Percent)										
							Presidential Undervote	**Presidential Overvote**	**Senatorial Undervote**	**Senatorial Overvote**
Optical Scan Counties							0.403	0.082	1.528	0.015
Punch-Card Counties							0.167	0.077	0.549	0.032
State Total							0.570	0.159	2.077	0.048
Total Residual								**0.723**		**2.125**

Counties using optical scan systems
Counties using punch-card systems

Results as of November 24, 2004. Gain/Loss figures were only available for counties with 100% of precincts reporting. Taken from WA Sec. of State, 2004b.