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IN THE SUPERIOR COURT OF THE STATE OF WASHINGTON
IN AND FOR THE COUNTY OF CHELAN

Timothy Borders, et al.,)
)
Petitioners,)
)
v.)
King County and Dean Logan, its Director of)
Records, Elections and Licensing Services, et al.,)
)
Respondents,)
)
v.)
Washington State Democratic Central)
Committee,)
)
Intervenor-Respondent,)
)
v.)
Libertarian Party of Washington State et al.,)
)
Intervenor-Respondents.)

No. 05-00027-3

**DECLARATION OF HARRY
KORRELL REGARDING
EXHIBITS TO PETITIONERS'
WITNESS LIST**

HARRY KORRELL declares as follows:

I am an attorney at Davis Wright Tremaine LLP, attorneys of record for Timothy Borders et al., ("Petitioners"). I make the statements in this declaration based on personal knowledge, and if called and sworn as a witness in any proceeding, could and would testify competently thereto.

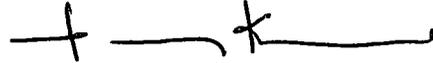
Attached hereto are the following exhibits to Petitioners' Witness List:

Exhibit A: Expert Report of Anthony Gill, Ph.D.

- 1 Exhibit B: Expert Report of Jonathan Katz, Ph.D
2 Exhibit C: List of Persons Attempting to Correct County Errors Regarding
3 Signature Verification
4 Exhibit D: List of Voters Who Claim Their Ballots Were Wrongly Rejected by
5 Counties for Signature Match Problems.

6 I declare under penalty of perjury under the laws of the State of Washington that
7 the foregoing is true and correct to the best of my knowledge and belief.

8
9 Executed at Seattle, Washington, this 15th day of April, 2005.

10
11 

12

HARRY KORRELL

EXHIBIT A

Report Regarding Invalid Ballots Cast in the 2004 Washington State Gubernatorial Race

Anthony Gill, Ph.D.
Associate Professor
Political Science, Box 353530
University of Washington
Seattle, WA 98195-3530

Executive Summary

- 1) Based upon a tipping point analysis, there are a sufficient number of uncontested invalid ballots in King County alone to believe the 2004 Washington State gubernatorial election may have resulted in a victory for Mr. Dino Rossi had those invalid votes not been cast or expunged prior to the manual recount completed on December 23, 2004. (See Section C of this report.)
- 2) Using precinct level data to estimate how invalid votes would have been distributed across all candidates (and “other” write-in or non-votes), the analysis shows that expunging the invalid ballots prior to the completion of the manual recount would have resulted in an electoral victory for Mr. Rossi. In all cases where the likely vote distribution of invalid ballots included King County – where the largest number of invalid ballots were cast – the result of the manual recount would likely have been altered to give Mr. Rossi an electoral victory if invalid votes had not been counted. An analysis of King County alone reveals that the invalid vote distribution would result in a Rossi victory, even when excluding contested votes (as of April 4, 2004) from the analysis. (See Section D of this report.)
- 3) Based upon previous research by Profs. Christopher Uggen and Jeff Manza, it is likely that the estimate of how felons voted in this analysis is too conservative, giving Ms. Gregoire the benefit of the doubt. In other words, the rate at which felons vote for a Democratic candidate is likely to be higher than the estimates provided by the precinct-level of analysis here. (See Section E of this report.)

A. Introductory Statements

A.1. Background.

In early February of 2005, I, Anthony Gill, was contacted by lawyers from the Dino Rossi for Governor Campaign (forthwith "Rossi Campaign") regarding the possibility of testifying as an expert witness in the trial involving the 2004 Washington State Gubernatorial Election. The general task to be assigned to me was to evaluate data on invalid votes to determine whether this subset of ballots could have affected the outcome of the election, which was decided by 129 votes favoring Christine Gregoire following a manual recount of ballots.

In mid-February of 2005, I was contacted by Clark Bensen and Polidata ® Political Data Analysis of Lake Ridge, VA and Mark Braden, a lawyer working for the Rossi Campaign. Clark Bensen was responsible for providing me with the datasets to be analyzed. From that point in time, we remained in contact regarding the progress being made on the construction of various datasets.

A.2. Biography.

Dr. Anthony Gill is a tenured associate professor in the Department of Political Science at the University of Washington, Seattle, where he has been employed since the autumn of 1994. Tenure and promotion to associate professor were granted in autumn of 2000. My primary fields of study include comparative politics, religion and politics and political methodology. I have taught numerous classes in these fields, including introductory undergraduate courses in political statistics and graduate courses in research design and statistics. In 1999, I was awarded the University of Washington's Distinguished Teaching Award. My publications include a book and numerous articles on religion and politics employing a variety of methodological techniques including statistical analysis.

I received a B.A. in political science and history at Marquette University (1987) and an M.A. (1989) and Ph.D. (1994) from the University of California, Los Angeles. While in graduate school, my major fields of concentration included methodology (including research design, formal theory and statistics) and comparative politics. A minor concentration in political economy rounded out my coursework and training at UCLA.

Between the summer of 1990 and autumn of 1991, I was employed as a research analyst for I/H/R Research, a privately-owned marketing research firm in Tustin, California. The company also operated two related firms – Restaurant Research Associates and Scientific Telephone Samples – where I was also employed. My work for these companies included the statistical analysis of survey data and generation of random telephone numbers for marketing research polls.

A.3. The Datasets Used

As mentioned in Section A.1, datasets were provided by Clark Bensen and Polidata. Two datasets were provided for analysis in the court case: 1) a statewide file of election results broken down by precincts with identified felons placed in the precincts where their ballots were cast; and 2) a file of King County election results broken down by precinct with invalid votes. The version of the statewide file used here for analysis was received April 10, 2005 and version of the King County file was used here was received April 8, 2005.

The statewide election result file was compiled based upon information gathered by the Rossi Campaign and Polidata using the official canvass from each county elections office. With respect to invalid votes, the statewide file only included invalid votes cast by felons. The seven contested felon votes were not identified in this file. The statewide file did not include information regarding deceased voters, invalid scanned provisional ballots, dual multi-state ballots, dual in-state ballots and non-citizen ballots. The dataset provided the precinct location of each invalid felon ballot.

The King County election result data file was compiled using information provided directly from the King County Elections Office. This file included not only data on felon voters, but invalid ballots based upon deceased voters, invalid scanned provisional ballots, dual multi-state, dual in-state, and non-citizen ballots. The file provided the precinct location of each invalid ballot cast. It also included information on invalid ballot challenges and which precincts those challenged invalid ballots were located.

Additional questions regarding the construction and proofing of the datasets should be directed towards Clark Bensen and Polidata (Lake Ridge, VA). The reasoning behind the determination of invalid ballots should be directed to the relevant parties as I played no role in determining what constituted an invalid ballot cast.

All analysis forthwith was based upon data and results from the manual recount of ballots certified by the Washington State Secretary of State on December 23, 2004.

B. Central Objective and Considerations

B.1. Central Objectives

The central objective of this study is to determine whether the invalid ballots could have made a difference in the Washington State gubernatorial election outcome between Christine Gregoire and Dino Rossi. The final results of the manual recount posted on 23 December 2004 show that Christine Gregoire received 129 more votes than Dino Rossi. **Based upon statistical calculations of invalid votes, is there reason to believe that this 129 vote gap between Ms. Gregoire and Mr. Rossi could be erased?**

B.2. Level of Analysis.

The ideal situation in resolving whether the set of invalid ballots could have made a difference in the gubernatorial election outcome would be to specifically identify each invalid ballot cast and note whether that ballot was cast for either Ms. Gregoire, Mr. Rossi, another candidate (including write-in candidates) or was cast as an undervote (no vote tallied) or an overvote (multiple candidates marked). This is not possible in this instance given that ballots are cast anonymously and all ballots – both valid and invalid – are part of a large voting pool.

Given that it is not possible to identify the exact invalid ballot and examine it directly, the next best solution is to examine how ballots were cast at the individual precinct level.

Examining ballots at the precinct level is possible given how ballots are tallied and reported. An examination of the election canvass reveals that votes often cluster by geographic region; rural precincts tend to vote for Republicans in higher numbers than Democrats and urban regions tend to favor Democrats more than Republicans. Additionally, precincts tend to contain individuals with similar demographic traits such as income level, marital status, race/ethnicity, and other characteristics that have been shown to be significant factors in voting behavior. For instance, a precinct with a large number of rental apartments is more likely to contain a higher percentage unmarried and childless individuals as compared to a precinct in suburban areas with single family homes. This is not to say that all individuals within a precinct are identical, but rather there is a tendency towards clustering. **Considering the tendency for important demographic traits to cluster in small geographic areas, using the smallest level of aggregation for votes – i.e., the precinct in this case – is the most appropriate means of estimation.**

Thus, for all calculations estimating the probable breakdown of invalid ballots, the precinct-level analysis will be the most preferred. Nonetheless, this report will examine one other level of aggregation – the county level – to provide an alternative view. It should be noted that counties have a wider variation of demographic characteristics than lower level precincts.

B.3. Other Considerations.

To illustrate the various techniques used, I will provide the reader with hypothetical and simplified examples. Through my teaching experience, I have found that people understand a concept better if they see a demonstration of a hypothetical and simplified example and then apply the techniques learned in that example to a real-life situation. All hypothetical and simplified examples, along with the procedures used to calculate results, will be presented in a shaded box and properly labeled.

All statistical tables are labeled to correspond to the section in which they appear in this report.

B.4. Summary of Invalid Votes

In the datasets provided to me for analysis (see section A.3), it was determined that between these two datasets there were 1,053 invalid votes cast. There were a total of 879 ballots cast by felons, with 8 of these ballots being contested in King County. (Because it was not possible to identify the precinct of one of the challenged felon ballots in King County by the time of my analysis, this felon vote was not tagged in the dataset. The inability to locate the precinct of this challenged felon ballot would have no effect on the substantive conclusions drawn in this analysis.¹ In the table below, then, I only report 7 challenged felon ballots in the King County dataset.) Of these 879 ballots cast by felons, 660 were identified to have been cast in King County, with the remaining ones scattered throughout 12 other counties. It was reported to me that five of the felon ballots cast outside of King County were challenged, but the location of these ballots was not reported to me in the statewide analysis. Nonetheless, I did account for these challenges in the analysis. The remaining invalid votes, all determined to be from King County, included invalid scanned provisional ballots, ballots cast by deceased individuals, ballots cast by individuals voting twice (either in-state or in Washington and one other state), and non-citizen ballots. Sixteen of these non-felon invalid votes were challenged in King County and their precinct location was identified in the King County dataset. Two non-felon invalid ballots were challenged outside of King County but the dataset I used for calculations based on statewide results did not include non-felon invalid votes.

Table B.4-1 provides a breakdown of the invalid votes as provided to me in the two datasets described above. Table B.4-2 provides the county-by-county breakdown of felon votes. If a county was not listed in Table B.4-2, then no felon ballots were reported for that county.

¹ In the analysis in Section D, where the invalid vote distribution between the candidates is conducted at the precinct level, the inability to identify the exact precinct of this additional challenged felon vote would not affect the substantive results. We could cautiously assume that this ballot was cast for Mr. Rossi and subtract one ballot from the felon vote differential between Gregoire and Rossi and the substantive results – i.e., that there are more than enough felon ballots to have altered the election results given the current distribution of these votes – would still hold.

Table B.4-1
 Summary of Invalid Votes
 As of April 4, 2005

Type	Total	King County Only	Other Counties	Statewide Dataset (Felons Only)
Felons	879	660	219	219
Deceased	53	39	14	NA
Dual Multi-State	5	4	1	NA
Dual In-State	22	20	2	NA
Other (non-citizens)	2	2	0	NA
Invalid Scanned Provisionals	92	92	0	NA
Sum	1053	817	236	219
Felon Challenges	12	7	5	NA
Other Challenges	18	16	2	NA
Provisional Sum	1023	794	229	219

NA = data not available in the statewide dataset provided by Polidata.

Table B.4-2
 Breakdown of Felon Ballots by County
 (Includes Contested Felon Ballots)

County	Number of Felons
Benton	16
Clark	33
King	660
Kitsap	6
Lewis	7
Pierce	28
Skagit	1
Snohomish	26
Spokane	20
Thurston	37
Walla Walla	2
Whatcom	13
Yakima	30
Total	879

C. Tipping Point Analysis

C.1. Explanation of the Tipping Point Concept.

As noted above, the Washington State gubernatorial election was decided by 129 votes out of over 2.8 million ballots cast. A “tipping point” analysis asks whether there were a sufficient number of invalid votes cast that had these invalid ballots been identified beforehand and removed from the vote total, could they have altered (or “tipped”) the election outcome? **The “tipping point” is the minimum number of invalid ballots that would be required to have possibly changed (or “tipped”) the election outcome.**

C.1.a. Baseline Tipping Point

The baseline tipping point is simply the number of votes that separate the top two candidates. If there are more invalid ballots than the number of votes separating the two candidates, and if there is a possibility that all those invalid votes were cast for the winning candidate, then the election result could be altered by expunging those invalid votes from the vote count (or, alternatively, having identified those invalid ballots prior to the final electoral certification and removing them from the vote tallies).

Hypothetical Illustration of a Baseline Tipping Point

Imagine an election wherein 1 million votes were cast. In this election, Candidate A received 100 more votes than Candidate B. Following the election, it was revealed that 80 votes were cast illegally. In this hypothetical scenario, those invalid votes would not have made the difference. All these ballots could have been removed from Candidate A’s vote tally and Candidate A would still have won the election by 20 votes (the 100 vote margin minus the 80 invalid votes).

However, if it was determined that there were 1,000 illegal votes cast, it is possible that all 1,000 votes were cast for Candidate A and if one subtracts those votes from Candidate A it would result in a 900 vote victory for Candidate B (i.e., the 100 vote margin favoring Candidate A minus the 1,000 illegal votes for Candidate A). In this situation, the election would have been “tipped” in favor of candidate B.

In this scenario, the minimum number of invalid ballots required to create a baseline tipping point resulting in an electoral deadlock would be 100 -- the difference between the two candidates. A situation with 100 invalid ballots creates a situation wherein if all those ballots were cast for the winning candidate, erasing these 100 ballots would result in a tie. The minimum number of invalid ballots required to create a baseline tipping point that changes the victor in the election would be 101.

C.1.b. Probabilistic Tipping Point Analysis

While the baseline tipping point analysis described above provides us with a floor with which to begin a challenge to an electoral contest, it could be asserted that not all invalid ballots would go to the winning candidate. There is a possibility that all the invalid ballots were cast for the losing candidate, which in that case those ballots would not have an effect on the election outcome. Realistically, the vote breakdown for the candidates is likely to be divided between the two candidates. We can use the best available information on how votes broke down between the two candidates – i.e., the final election canvass – to estimate what the percentage breakdown of those invalid ballots might be. Here, we would need to calculate how many invalid ballots would need to be cast given the current percentage difference between the two top candidates to determine a probabilistic tipping point. Allow me to illustrate with a hypothetical example.

Hypothetical Illustration of Probabilistic Tipping Point

Imagine the election above wherein Candidate A and Candidate B were separated from each other by 100 votes. We noticed that in a specific geographic area (e.g., a small town within a county) there were some irregularities in the processing of ballots that resulted in some number of invalid ballots being cast. We know from the final electoral canvass that in this small town, 60% of the residents voted for Candidate A and 40% of the residents voted for Candidate B. This means that the difference between the two candidates was 20% or, stated in proportions,² 0.20. If 100 votes separated the two candidates in the entire election, how many invalid ballots would be required to create a tipping point in this small town if the percentage breakdown of the invalid ballots matched the percentage breakdown of the total canvass in the small town? This can be calculated as follows:

$$Tipping_Point = \frac{Vote_Difference}{Proportion_difference_between_candidates}$$

Since we know the vote difference and the proportion difference between the two candidates, we can estimate the minimum number of invalid ballots required to create a tipping point through simple algebra. In our hypothetical town the calculation would run as follows, where 100 = vote difference between the two candidates and the candidates are separated by 0.20 (or 20%).

$$Tipping_Point = \frac{100}{0.20} = 500$$

In other words, it would take 500 invalid ballots wherein candidates were divided by 100 votes in a town that voted 60/40 for the winning candidate

² A proportion is a percentage divided by 100. Statistical calculations are conducted in proportions.

for the election to be affected if those invalid ballots were also split at a 60/40 ratio (or, stated in different terms, a 20% percentage point differential between the candidates).

To verify this result, you could multiply the 500 ballot tipping point by the percentage breakdown in the hypothetical small town. Thus, 500 multiplied by 0.60 (or stated differently, 60% of 500) yields 300 invalid votes for Candidate A and 500 multiplied by 0.40 for Candidate B yields 200 invalid votes. If all five hundred invalid votes were expunged, we would take away 300 invalid votes from Candidate A and 200 votes from Candidate B, resulting in an electoral deadlock (since they were separated by 100 votes initially). To calculate the tipping point for where the election would have yielded a victory for Candidate B, we would use the level of 101 to calculate our tipping point, in that a swing of 101 votes would result in Candidate B winning in this hypothetical scenario.

C.2. Importance of a Tipping Point Analysis

Why would a tipping point analysis be necessary for an electoral challenge based on invalid ballots? In the case of the Washington gubernatorial election, it has been widely reported by various media outlets that a variety of invalid votes have been discovered over the course of the past several months. Additionally some of the ballots that were declared to be invalid by one party were contested by another party. In essence, the actual number of invalid ballots tends to be shifting. The tipping point analysis will give us some basic threshold to keep in mind while the number of invalid ballots shifts. **If the number of uncontested invalid ballots remains above this tipping point, there are sufficient grounds to believe that these invalid ballots could have affected the election outcome. This tipping point analysis allows us to continue examining the election results even as a small handful of invalid ballots are being contested.**

C.3. Baseline Tipping Point for the 2004 Gubernatorial Election

The 2004 Washington gubernatorial election was decided by a margin of 129 votes. At a minimum, it would be necessary to identify 129 votes for the election to have been altered. In the case that there were 129 invalid ballots cast, and all 129 invalid ballots were cast in favor of Ms. Gregoire, the election would have resulted in a deadlock after subtracting those 129 invalid votes. In the case that there were 130 or more invalid ballots cast, and all of those ballots were cast in favor of Ms. Gregoire, the result of erasing those invalid votes would result in a victory for Mr. Rossi. Thus, we can state a minimum number of invalid ballots cast to begin questioning whether the election results might be affected by the removal of these invalid votes is 129 for an electoral tie and 130 for a change in the victor from Ms. Gregoire to Mr. Rossi.

Baseline Tipping Point (Deadlocked Election) = 129

Baseline Tipping Point (Altered Result) = 130

Looking across the entire state (Table B.4-1), we see that the total number of invalid ballots (1,053) and uncontested invalid ballots (1,023) exceeds the baseline tipping point by a substantial margin. However, on a more cautious note and for reasons explained in the first paragraph of C.4), we could look solely at a single county – King County – and see as well that the number of uncontested invalid ballots (794) exceeds the baseline tipping point by a substantial margin of 665 for a deadlocked election and 664 for an altered result.

The current number of uncontested invalid ballots both statewide and in King County alone exceeds the baseline tipping point for both a deadlocked election and an altered result, giving us sufficient reason to continue examining the invalid ballots.

C.4. Probabilistic Tipping Point Calculation – County Level

In the state of Washington, election processing – including the maintenance of voter registration records, processing absentee ballots and assigning poll workers – is done by county governments, typically a county election board. Indeed, during both the machine and manual recounts of the 2004 gubernatorial election, it was the county governments that were responsible for tabulating and reporting results. For this reason, the tipping point analysis should be done at no level of aggregation higher than the county level. Irregularities regarding ballots would typically appear at that level. Moreover, looking at Tables B.4-1 and B.4-2, we can see that invalid ballots tended to be concentrated in certain areas, namely King County. In no other county did the number of invalid ballots exceed the 129 vote margin between Ms. Gregoire and Mr. Rossi (see Table B.4-2),³ thus there is no need to calculate a tipping point for those counties. For this reason, the probabilistic tipping point is only calculated for King County based upon the information in Table C.4-1 below which was derived from the King County dataset I was provided with and checked against the official manual recount results as posted on the Washington Secretary of State's website (<http://vote.wa.gov>) as of April 10, 2005.⁴

³ Although non-felon invalid votes were not reported in the statewide dataset I was provided with, one could easily see that the addition of 17 invalid ballots to the total number of felon ballots in any given county would not exceed the 129 baseline tipping point. If all 17 non-felon invalid votes were in Thurston county, the county with the highest number of felon ballots, the maximum number of invalid ballots in that county given current information would be 54.

⁴ The Secretary of State's website did not include a tally of write-in votes, undervotes and overvotes. The numbers checked were only each candidate's vote tally.

Table C.4-1 King County Manual Recount Results – Entire County			
	Votes	Proportion of Vote	Gregoire-Rossi Difference
Gregoire	506,194	0.5629	0.1722
Rossi	351,306	0.3907	
Bennett	18,952	0.0211	
Write-in (scatter)	1,363	0.0015	
Undervotes	21,297	0.0237	
Overvotes	87	0.0001	
Total	899,199	1.0000	
Precincts Reporting = 2,616			

Based upon the results above, we can calculate the county-wide probabilistic tipping point for both a deadlocked election and an altered results.

$$Tipping_Point_Deadlock = \frac{129}{0.1722} = 749.13$$

$$Tipping_Point_Altered_Result = \frac{130}{0.1722} = 754.94$$

If we round up in both cases – a more cautious approach that would set the level of proof at a higher standard – the results would be a tipping point of 750 invalid ballots for an electoral deadlock and 755 invalid ballots for an altered election result, both calculated at the countywide margin of victory for Ms. Gregoire (17.22% or 0.1722).

Examining Table B.4-1, we can see that the number of invalid ballots (817) and uncontested invalid ballots (794) for King County alone exceeds both tipping point calculations. For that reason, it would be sufficient for us to expect that the presence of these invalid ballots could have affected the results of the November 2004 gubernatorial election.

C.5. Additional Tipping Point Calculation – Problem Precinct Level (Pooled)

There is yet another, and I would argue more accurate, tipping point analysis that can be conducted. It should be noted that the invalid ballots were not randomly and evenly distributed throughout King County, but tended to cluster in certain areas. In keeping with an effort to get down to the lowest level of aggregation, we can calculate the pooled election results for only the precincts where **at least one uncontested invalid ballot** was cast. Note, this is a more cautious analysis than one that would rely upon all invalid ballots – both uncontested and contested; I am assuming that the contested invalid ballots

may actually be valid – an assumption that may or may not prove true over time, but one that would favor Ms. Gregoire in a tipping point analysis.

The canvass results for this analysis, based on the King County dataset provided by Polidata, are summarized in the Table C.5-1.

	Votes	Proportion of Vote	Gregoire-Rossi Difference
Gregoire	121,176	0.5917	0.2368
Rossi	72,677	0.3549	
Bennett	5,244	0.0256	
Write-in (scatter)	391	0.0019	
Undervotes	5,277	0.0258	
Overvotes	36	0.0002	
Total	204,801	1.0000	
Precincts = 552			

As can be seen in Table C.5-1, in the 552 pooled precincts where there was at least one invalid vote cast, Ms. Gregoire received a higher percentage of the vote (59.17%) than in the countywide canvass (56.29%). Likewise, Mr. Rossi received a lower percentage of the vote in the pooled precincts with at least one invalid ballot cast. The resulting percentage difference between the two candidates for the pooled precincts with invalid ballots was 23.68% (or 0.2368 stated in proportions). The resulting calculations for the probabilistic tipping point are:

$$Tipping_Point_Deadlock = \frac{129}{0.2368} = 544.76$$

$$Tipping_Point_Altered_Result = \frac{130}{0.2368} = 548.97$$

If we round up in both cases – a more cautious approach that would set the level of proof at a higher standard, as noted above – the results would be a tipping point of 545 invalid ballots for an electoral deadlock and 549 invalid ballots for an altered election result. Again, in this instance, **the number of invalid ballots (817) and uncontested invalid ballots (794) in King County exceeds both the tipping point for an electoral deadlock (545) and for a tipping point resulting in an altered election result (549).**

Again, I would consider this tipping point analysis to be the best analysis since we were able to get to the lowest level of aggregation – looking at only the precincts where there were uncontested invalid ballots cast.

C.6. Conclusions of Tipping Point Analysis

Based upon several levels of analysis and different perspectives, the tipping point for invalid ballots in the 2004 gubernatorial race exists in a range between 129 and 755. The 129 figure refers to the minimum number of ballots needed if all invalid ballots were cast for Ms. Gregoire. Expunging these invalid ballots would result in an electoral tie between Ms. Gregoire and Mr. Rossi. The 755 tipping point figure is based upon canvass results for all King County precincts, including precincts that did not have invalid ballots. The best analysis of a tipping point would be based upon results from only precincts with uncontested invalid ballots. This would result in a tipping point of 549 invalid ballots.

In all cases, including the most conservative 755 tipping point figure, the current number of uncontested invalid ballots (as of April 4, 2005) exceeds the tipping point.

Based upon a tipping point analysis, and with the highest tipping point calculated (755), there are a sufficient number of uncontested invalid ballots in King County alone to believe the 2004 Washington State gubernatorial election may have resulted in a victory for Mr. Dino Rossi had those invalid votes not been cast or expunged prior to the manual recount completed on December 23, 2004.

D. Estimation of Probable Breakdown of Invalid Ballots

The next step in our analysis of the 2004 Washington State gubernatorial election is to isolate the invalid ballots and estimate how those invalid ballots might have been cast for various candidates (or as undervotes or overvotes). As noted in B.2, the best way to conduct this analysis is to find the lowest level of aggregation possible. Since votes are anonymous, and it is not possible to fish out the exact invalid ballots from the current canvass, the individual level of analysis is not available to us. The next best level of analysis is the precinct level as it is the smallest unit in which ballots are tallied and reported by election boards.

D.1. Estimation Procedures.

To determine how invalid ballots would break between a variety of candidates, we would first examine what the breakdown of ballots was in the precinct where the invalid ballot was cast. If 75% of the precinct voted for Candidate A and 25% for Candidate B, we would estimate that there is a 75% chance that the invalid ballot was cast for Candidate A and a 25% chance for Candidate B. Likewise, if there were three candidates and Candidate A received 70% of the precinct vote, Candidate B received 20% and Candidate C received 10%, we would assume that there was a 70% chance that the invalid ballot was for Candidate A, a 20% for Candidate B and a 10% chance for Candidate C.

In attempting to estimate how the invalid ballots broke, we can use the percentage (or proportion) breakdowns of the precincts to divide and allocate votes between candidates in each of the precincts. This will obviously involve giving candidates a fraction of a

vote in each precinct in most cases. To estimate the total breakdown of all invalid ballots cast in the election, we would then sum up the results from each precinct to see how many would be allocated to each candidate. Then, we can compare the total number of invalid votes estimated for each candidate and compare the top two candidates to see if this estimation would have resulted in an altered election result. Allow me to illustrate with another example.

Hypothetical Illustration of Invalid Vote Estimation

Assume we have an electoral contest decided by 10 votes – Candidate A received 4 more votes than Candidate B. We noticed that 20 invalid votes were cast in this election, a number above our baseline tipping point. Now assume that these 20 invalid votes were distributed across 5 precincts; an additional precinct with no invalid ballots cast was also included to demonstrate that it would have no effect on the calculation (as there would be no invalid votes to distribute across candidates). The hypothetical table below shows how these invalid votes were distributed and the proportion of the vote each candidate received. The two far right columns show how the votes would be distributed between candidates.

Precinct	Vote Proportion Candidate A	Vote Proportion Candidate B	Total Invalid Ballots	Invalid Vote Distribution Candidate A	Invalid Vote Distribution Candidate B
Alpha	0.20	0.80	1	0.20	0.80
Beta	0.65	0.35	7	4.55	2.45
Gamma	0.70	0.30	6	4.20	1.80
Delta	0.58	0.42	2	1.16	0.84
Epsilon	0.63	0.37	4	2.52	1.48
Zeta	0.23	0.77	0	0.00	0.00
Total	NA	NA	20	12.63	7.37

As can be seen in Precinct Alpha, there was only one invalid vote cast. Based upon the hypothetical election returns, we assigned Candidate A 0.2 invalid votes and Candidate B received 0.8 invalid votes summing up to 1 in that precinct. Likewise in Precinct Beta, with 7 invalid votes, we distributed 4.55 (= 0.65 x 7) invalid votes to Candidate A and 2.45 (= 0.35 x 7) invalid votes to Candidate B. After all calculations were done for the five precincts, we summed each of the candidate's invalid vote distribution. Candidate A received 12.63 invalid votes and Candidate B received 7.37 invalid votes. What we would do then is to subtract 12.63 invalid votes from Candidate A's vote tally and 7.37 invalid votes from Candidate B's vote tally. Given that the gap between 12.63 for Candidate A and 7.37 for Candidate B is 5.26, and the hypothetical election was determined by only 4 votes, this analysis would suggest that the invalid votes may very well have affected the results. The official election results, which included the invalid ballots, should be brought into question.

The aforementioned procedures were conducted on the two datasets provided by Polidata, and included the breakdown for all three named candidates (Bennett, Gregoire and Rossi) as well as write-ins and other votes (undervotes, overvotes). For the statewide analysis, I only had data on invalid felon ballots, and was not provided information on which felon ballots were contested. I performed an analysis on the entire statewide dataset and also segmented the analysis between King County and non-King County. Since King County had more invalid votes than all other counties combined, and the number of invalid votes exceeded all of our tipping point estimates, it seemed reasonable to segment out King County.

The King County dataset provided additional information on other forms of invalid votes, including deceased voters, multiple voters (voting twice in state or in different states), non-citizen ballots, and invalid provisional ballots that were inadvertently scanned and became part of the canvass. Moreover, the King County dataset identified where contested invalid ballots were cast. In an effort to provide a cautious and conservative estimate, I did not include the contested invalid ballots. In other words, I assumed that the contested invalid ballots were valid. The results of this analysis are as follows.

D.2. Estimation of Invalid Ballot Breakdown – Statewide Dataset (Felons Only).

D.2a. Statewide Dataset – All Counties Included.

There were 689 precincts with at least one invalid felon ballot included in the vote tally throughout the entire state, including King County. When multiplying the number of invalid votes in each precinct by the proportion of vote for each candidate and an “other” category (including write-in votes, overvotes and undervotes), the following results were generated. (Note: Unlike the hypothetical example above wherein I listed each precinct, the large number of precincts involved would make this prohibitive in this report.)

In this analysis, a positive number for the Gregoire-Rossi Differential represents more invalid ballots calculated for Gregoire than Rossi. Hence, any number in the Gregoire-Rossi Differential column greater than 129 would represented an altered election outcome had those invalid ballots been expunged before the manual election recount.

Table D.2a-1 Invalid Felon Vote Distribution – Statewide Dataset, All Counties		
Candidate/Category	Invalid Vote Distribution	Gregoire-Rossi Differential (Vote Swing for Rossi)
Gregoire	510.02	191.38
Rossi	318.64	
Bennett	24.57	
Other	25.77	
Total	879.00	
Number of precincts with invalid felon votes = 689		

As can be seen from Table D.2a-1, Ms. Gregoire received 191.38 more of the invalid vote distribution than Mr. Rossi, a figure that would represent a vote swing in Mr. Rossi's favor. This figure is above the 129 votes that separated Ms. Gregoire from Mr. Rossi in the final manual recount. Had these invalid ballots been eliminated prior to the manual recount, the result would have been a 62 vote victory for Mr. Rossi (the 191 vote swing noted above minus the 129 vote advantage of Ms. Gregoire in the manual recount). The invalid vote distribution was also calculated based upon the three party vote distribution – Gregoire (Democrat), Rossi (Republican), and Bennett (Libertarian). The results here showed a 198.04 invalid vote differential between Ms. Gregoire and Mr. Rossi, a result higher than the 129 manual recount vote margin and the calculation reported above.

Based upon a statewide analysis of invalid felon ballots, the estimated vote distribution of invalid votes would be sufficient to alter the manual election recount results. Even if one distributed all 13 contested felon ballots to Mr. Rossi – a cautious and conservative estimate – the margin of difference in the invalid vote distribution would be 178.38, still above the 129 vote margin that Ms. Gregoire won the manual recount by.

D.2b. Statewide Dataset – All Counties Except King County.

To see how this analysis would be affected by removing King County from the dataset and examining all other counties, we would get the following result (Table D.2b-1).

Candidate/Category	Invalid Vote Distribution	Gregoire-Rossi Differential (Vote Swing for Rossi)
Gregoire	99.94	-6.93
Rossi	106.86	
Bennett	5.78	
Other	6.41	
Total	218.99	
Number of precincts with invalid felon votes = 195		

The results above indicate that if all counties other than King County are considered, he would lose 6.93 more votes than Ms. Gregoire. Thus, if all counties except King County were considered, the invalid felon votes would not have affected the results of the election – indeed, Ms. Gregoire's electoral margin would have increased from 129 to 136. Of course, ignoring Washington State's most populous county, and the county with the greatest number of invalid ballots, would not be advised. In fact, as seen below, invalid ballots in King County alone would overwhelm any advantage Mr. Rossi had elsewhere in the state. (It should be noted that this differential of 6.93 in Ms. Gregoire's favor is subsumed in the results presented in D.2a.)

D.2c. Statewide Dataset – King County Only.

As noted above, it would be a mistake to ignore Washington State’s most populous county. Moreover, given that King County alone has more than 129 invalid felon ballots, above our baseline tipping point and above our probabilistic tipping point based on the pooled precinct results for King County, it is imperative to give this county a close examination.

The results for King County only, based on the statewide dataset and including only invalid felon votes, are presented in Table D.2c-1.

Candidate/Category	Invalid Vote Distribution	Gregoire-Rossi Differential (Vote Swing for Rossi)
Gregoire	410.08	198.30
Rossi	211.78	
Bennett	18.79	
Other	19.35	
Total	660.00	
Number of precincts with invalid felon votes = 494		

As can be seen in the table directly above, Ms. Gregoire would have 198.30 more invalid felon votes distributed to her than Mr. Rossi. Again, this figure exceeds the 129 vote margin given to Ms. Gregoire in the manual recount. The invalid vote distribution was also calculated for the three major party candidates and the result was 204.96.

Based upon a King County analysis of invalid felon ballots from the statewide dataset, the estimated vote distribution of invalid votes would be sufficient to alter the manual election recount results. Even if one distributed all 7 contested felon ballots to Mr. Rossi – a cautious and conservative estimate – the margin of difference in the invalid vote distribution would be 191.30, still above the 129 vote margin that Ms. Gregoire won the manual recount by.

D.2d. Comparison of Election Results Based on Estimation of Invalid Vote Distribution

Table D.2d-1 places the aforementioned analysis in comparative perspective and reveals how the different estimations of how the invalid ballots were cast would have affected the outcome of the election had these invalid ballots been removed prior to the manual recount. A positive number in the Rossi Vote Swing Advantage column indicates that Ms. Gregoire received more invalid votes (based on the above estimations) than Mr. Rossi. A negative number indicates that Mr. Rossi would have lost votes based upon the invalid vote distribution estimates above. As we know from section D.2b, Mr. Rossi

would have lost ground to Ms. Gregoire if only counties other than King County were examined. However, the size of King County is too big to ignore in this analysis.

Table D.2d-1 Comparison of Election Results Based on Estimation of Invalid Vote Distribution Statewide Dataset, Felons Only			
Set/Subset of Invalid Votes	Rossi Vote Swing Advantage	Gregoire Manual Recount Advantage	Election Result
All Invalid Felon Votes – Statewide	191	129	+ 62 Rossi Victory
All Felon Votes – King County Excluded	-7	129	+ 136 Gregoire Victory
All Felon Invalid Votes – King County Only	198	129	+ 69 Rossi Victory

It is also possible to recalculate the above table based upon a cautious assumption that all 13 contested invalid felon ballots – 8 in King County and 5 outside of King County – were cast for Mr. Rossi. This assumption would give Ms. Gregoire the benefit of the doubt and provide a slightly higher bar for Mr. Rossi to hurdle in his election challenge. I am making this assumption for the statewide dataset since that dataset does not indicate in which precincts the contested invalid felon votes were cast. Table D.2d-2 present the results of that conservative assumption.

Table D.2d-2 Comparison of Election Results Based on Estimation of Invalid Vote Distribution Statewide Dataset, Felons Only Assuming Contested Felon Ballots Cast for Rossi				
Set/Subset of Invalid Votes	Rossi Vote Swing Advantage	Contested Felon Ballot Tallied for Rossi	Gregoire Manual Recount Advantage	Election Result
All Invalid Felon Votes – Statewide	191	-13	129	+ 49 Rossi Victory
All Felon Votes – King County Excluded	-7	-5	129	+ 141 Gregoire Victory
All Felon Invalid Votes – King County Only	198	-8	129	+ 61 Rossi Victory

Again, in the two instances where King County is included in the analysis, the presence of uncontested invalid felon votes likely made a difference in the gubernatorial election outcome.

D.3. Estimation of Invalid Ballot Breakdown – King County Dataset.

In contrast to the Statewide Dataset, the King County Dataset (as discussed in section A.3) includes information regarding invalid felon ballots, deceased voters, multiple ballot voters, non-citizen ballots and invalid scanned provisional ballots. Moreover, the King County Dataset pinpoints which precincts the contested invalid ballots are in, making it possible to remove those from the invalid vote distribution calculation, thereby providing a more cautious analysis. This dataset also provided a more precise breakdown of the “other” vote category, segmenting it into write-in (or “scatter”) votes, and non-votes (either an overvote or undervote). Results for the invalid ballot vote distribution were calculated according to the procedures enumerated in section D.1.

The results are presented in the following series of tables. Results are presented for all identified invalid ballots in the dataset, only the uncontested invalid ballots, all invalid felon ballots, only the uncontested invalid felon ballots, and the invalid scanned provisional ballots. The last categorical breakdown – invalid scanned provisional ballots – only contained 92 ballots, a number not sufficient in-and-of-itself to overcome the 129 vote margin in the manual recount. Nonetheless, given the large number of these invalid scanned provisional ballots (92), I wanted to show the precise calculated breakdown for the reader. I only report the differential results (and not the precise breakdown) for deceased, dual voters and non-citizen voters due to the low number of invalid ballots in each category. It should be noted that these types of ballots are included in the calculations done in section D.3a and D.3b below.

D.3a. King County Dataset – All Invalid Ballots (Including Contested).

If we examine all invalid ballots cast in King County (included invalid ballots that are contested), and calculated the vote distribution based on precinct-level data, we would predict that Ms. Gregoire would receive 497.02 of the invalid votes while Mr. Rossi would receive 273.76 (see Table D.3a-). This means that Ms. Gregoire would have 223.26 more invalid votes to her credit than Mr. Rossi. This figure – 223 rounded downwards in Ms. Gregoire’s favor (since it is a vote that would be taken away) – exceeds the 129 vote margin that Ms. Gregoire enjoyed in the manual recount.

Another way of understanding the table below is to think of the Gregoire-Rossi Differential as being a “vote swing.” A positive number (reflecting more invalid votes cast in Ms. Gregoire’s favor) would be beneficial to Mr. Rossi, while a negative number (Ms. Gregoire having fewer invalid votes than Mr. Rossi) would favor Ms. Gregoire. In the case below, **with a vote swing of 223 votes in Mr. Rossi’s favor, the result of the election had invalid votes been expunged prior to the manual recount would be a margin of victory for Dino Rossi of 94 votes** (calculated as 223 votes in his favor minus the 129 vote margin Ms. Gregoire held after the manual recount).

Table D.3a-1 Invalid Vote Distribution – King County Dataset, All Invalid Ballots		
Candidate/Category	Invalid Vote Distribution	Gregoire-Rossi Differential (Vote Swing for Rossi)
Gregoire	497.02	223.26
Rossi	273.76	
Bennett	21.99	
Write-In	1.73	
Other	22.52	
Total	817.02	
Number of precincts with invalid ballots = 564		

D.3b. King County Dataset – All Uncontested Invalid Ballots.

If we eliminate the contested invalid ballots from our analysis, which according to the King County dataset totals to 23 ballots, and recalculated the invalid vote distribution, the gap between Ms. Gregoire and Mr. Rossi would shrink to 215.34. This result remains well above the 129 vote margin in the manual recount. In other words, based on the calculations in Table D.3b-1 below, we would expunge 482.18 votes from Ms. Gregoire’s final tally in the manual recount and only 266.84 votes from Mr. Rossi’s tally. This would result in a roughly a 215 vote swing in the election, leaving Mr. Rossi the victor in the gubernatorial contest by 86 votes (the 215 vote margin calculated in Table D.3b-1 minus the 129 vote lead that Ms. Gregoire obtained in the manual recount).

Table D.3b-1 Invalid Vote Distribution – King County Dataset, All Uncontested Invalid Ballots		
Candidate/Category	Invalid Vote Distribution	Gregoire-Rossi Differential (Vote Swing for Rossi)
Gregoire	482.18	215.34
Rossi	266.84	
Bennett	21.49	
Write-In	1.68	
Other	21.82	
Total	794.01	
Number of precincts with uncontested invalid ballots = 551		

D.3c. King County Dataset – All Invalid Felon Ballots (Including Contested).

Examining all invalid felon ballots (including contested ballots), we notice that Ms. Gregoire would still receive a greater share of the invalid felon vote, resulting in a 198.16 vote swing in favor of Mr. Rossi – wherein the vote swing is calculated as the difference between the invalid felon ballots likely cast for Ms. Gregoire and the invalid felon votes likely cast for Mr. Rossi.

Table D.3c-1 Invalid Vote Distribution – King County Dataset, All Invalid Felon Ballots		
Candidate/Category	Invalid Vote Distribution	Gregoire-Rossi Differential (Vote Swing for Rossi)
Gregoire	409.89	198.16
Rossi	211.73	
Bennett	18.77	
Write-In	1.47	
Other	18.16	
Total	660.02	
Number of precincts with invalid felon ballots = 494		

D.3d. King County Dataset –Uncontested Invalid Felon Ballots.

Eliminating the contested invalid felon ballots from the dataset and recalculating the invalid felon vote distribution, we see that the Gregoire-Rossi vote differential decreases slightly to 196.43. Comparing this vote swing

Table D.3d-1 Invalid Vote Distribution – King County Dataset, Uncontested Invalid Felon Ballots		
Candidate/Category	Invalid Vote Distribution	Gregoire-Rossi Differential (Vote Swing for Rossi)
Gregoire	405.68	196.43
Rossi	209.25	
Bennett	18.64	
Write-In	1.45	
Other	18.00	
Total	653.02	
Number of precincts with uncontested invalid felon ballots = 487		

D.3e. King County Dataset –Invalid Scanned Provisional Ballots.

Although the number of invalid scanned provisional ballots (92) did not exceed the vote difference between Ms. Gregoire and Mr. Rossi in the manual recount (129), the rather large number of these ballots warrants a close examination. As can be seen below, the invalid scanned provisional ballots would have given Mr. Rossi an additional 10 vote advantage over Ms. Gregoire.

Candidate/Category	Invalid Vote Distribution	Gregoire-Rossi Differential (Vote Swing for Rossi)
Gregoire	48.77	10.11
Rossi	38.66	
Bennett	1.86	
Write-In	0.15	
Other	2.57	
Total	92.01	
Number of precincts with invalid scanned provisional ballots = 57		

D.3f. King County Dataset – Other Invalid Ballots.

D.3g. Comparison of Election Results Based on Estimation of Invalid Vote Distribution

Table D.3g-1 summarizes how the election result would be affected if different sets and subsets of the invalid ballots were expunged from the electoral canvass prior to the posting of the manual recount results on December 23, 2004. The column labeled Rossi Vote Swing Advantage indicates the difference in invalid votes between Ms. Gregoire and Mr. Rossi. A positive number indicates that Ms. Gregoire received more invalid votes (based on the estimations above) than Mr. Rossi and that eliminating these invalid votes from the canvass would give Mr. Rossi an advantage. The manual recount, as you may recall, gave Ms. Gregoire a 129 vote margin of victory. By subtracting Mr. Rossi's Vote Swing Advantage from Ms. Gregoire's Manual Recount Advantage we can see how the election might have changed had these invalid votes not been counted in the manual recount. In all cases, Rossi's Vote Swing Advantage was rounded downward, giving the "benefit of the doubt" to Ms. Gregoire in the analysis.

This comparative analysis was based only on the set of all invalid ballots, all uncontested invalid ballots, all invalid felon ballots and all uncontested invalid felon ballots since each of these sets of ballots exceeded the 129 vote margin of victory for Ms. Gregoire in the manual recount.

Table D.3g-1 Comparison of Election Results Based on Estimation of Invalid Vote Distribution			
Set/Subset of Invalid Votes	Rossi Vote Swing Advantage	Gregoire Manual Recount Advantage	Election Result
All Invalid Votes	223	129	+ 94 Rossi Victory
All Uncontested Invalid Votes	215	129	+ 86 Rossi Victory
All Felon Invalid Votes	198	129	+ 69 Rossi Victory
All Uncontested Felon Invalid Votes	196	129	+ 67 Rossi Victory

In all cases, including analyses that only considered felon votes (and excluded deceased voters, invalid scanned provisional ballots, and other invalid ballots), the result of how invalid voters were distributed according to precinct-level estimations would have resulted in an electoral victory for Dino Rossi.

In short, the presence and likely distribution of the uncontested invalid votes discovered since the end of the manual recount are likely to have a significant impact on the outcome of the election. Indeed, based on the analysis above, had the uncontested invalid ballots been removed prior to the hand recount, Mr. Rossi would likely have been the victor in the manual recount and be governor today.

E. Additional Considerations.

One of the central components of the aforementioned analysis in Section D was to estimate the likely vote distribution of felons who cast invalid ballots in the 2004 Washington State gubernatorial election. The assumption underlying this analysis is that the likely vote distribution of invalid felon ballots can be estimated based upon the known vote distribution of the precinct in which the ballot was cast. Nevertheless, I wondered if any social scientists had previously studied the voting behavior of felons. Such research would provide us with an independent check on our estimations of felon voting behavior, namely whether or not they tend to vote Democratic or Republican. Not surprisingly, since felons are not allowed to vote in most states (including Washington), there has been almost no research done on this topic.

However, I did discover a 2002 article by Christopher Uggen and Jeff Manza in the *American Sociological Review* that undertook a study of this topic.⁵ Uggen and Manza attempt to predict the impact that felons would have on a variety of presidential and senatorial elections if they were given the franchise in different states. Unlike this

⁵ Uggen, Christopher and Jeff Manza. 2002. "Democratic Contraction? Political Consequences of Felon Disenfranchisement in the United States." *American Sociological Review* 67: 777-803.

analysis, they do not assume that felons have actually voted, but rather based upon a set of common demographic predictors of votes – gender, race, income, marital status, age, education and employment status – they estimate both the likely voter turnout rate for felons and the probability they would vote Democratic or Republican. The research design and methodology they employ is rather ingenious and creative. The data sources they employ are standard datasets in political science (e.g., the National Election Study).

Their results indicate that felons would be likely to vote overwhelmingly Democratic in major elections – for U.S. President and U.S. Senate.⁶ In fact, they estimate that the minimum vote for a Democrat in a presidential election dating back to 1972 would have been 66.5% (for James Carter in 1980). The maximum vote was estimated to be 85.4% for William Clinton in 1996. The average Democratic vote for US President was 73.4%.⁷ In Senate elections, the minimum estimated vote percentage by felons for a Democratic candidate was 52.2% (in 1994) and the maximum was 80.4% (1996). The average vote support for a Democratic Senate candidate was 73.8%.⁸

Compare these estimations with the results from this study and the two datasets provided by Polidata. In the Statewide dataset, the percentage of the pooled precincts with at least one invalid felon ballot was 54.12%.⁹ In King County, the percentage of uncontested invalid felon ballots cast for Ms. Gregoire was 60.12%.¹⁰ In both cases, the percentage of the Democratic vote was lower than the average estimate of Uggen and Manza's estimated Democratic vote for felons. Only in one case out of 23 elections analyzes in their Table 1 is the estimated Democratic vote of felons below the pooled averages we have for precincts with at least one felon in Washington and King County.¹¹

This comparison of the current Washington State canvass with the results of Uggen and Manza are important to consider. One might be tempted to say that since most felons are men and since men vote Republican on average, that the felon vote would be more Republican. But this assumption only factors in one variable – gender. Uggen and Manza bring a number of other important demographic predictors of voting behavior (e.g., income, race, marital status) to bear on the analysis.

The bottom line of this analysis is that the calculations in Section D of this report may be overly conservative when it comes to estimating the likely vote distribution of invalid felon votes. This, in turn, would disadvantage Mr. Rossi in this analysis as he was the Republican candidate. Given that the calculations in Section D indicated that the final result of the manual recount would have been different (giving Mr. Rossi a victory) had

⁶ Ibid, p. 787 (Table 1).

⁷ Author's calculation based on Uggen and Manza op. cit., p. 787 (Table 1).

⁸ Author's calculation based on Uggen and Manza op. cit., p. 787 (Table 1).

⁹ It is critical to remember that the calculations conducted in Section D were based upon precinct-level analysis. Some precincts contained 2 or more invalid felon votes. Because of this, a straightforward multiplication of the pooled precinct percentage for Ms. Gregoire would result in a different estimate of the felon vote distribution. As argued earlier, the precinct-level of analysis is at a lower level of aggregation and more accurate.

¹⁰ See footnote 8.

¹¹ Cf. Uggen and Manza, op. cit., p. 787 (Table 1).

the invalid votes been expunged prior to certification of the manual recount, a less conservative analysis based on the findings of Uggen and Maza would only strengthen the conclusion that Mr. Rossi would have won the election had no felon ballots been cast.

F. Conclusion

Based on the above analysis, I conclude the following (also stated in the Executive Summary).

- 1) Based upon a tipping point analysis, there are a sufficient number of uncontested invalid ballots in King County alone to believe the 2004 Washington State gubernatorial election may have resulted in a victory for Mr. Dino Rossi had those invalid votes not been cast or expunged prior to the manual recount completed on December 23, 2004. (See Section C of this report.)
- 2) Using precinct level data to estimate how invalid votes would have been distributed across all candidates (and “other” write-in or non-votes), the analysis shows that expunging the invalid ballots prior to the completion of the manual recount would have resulted in an electoral victory for Mr. Rossi. In all cases where the likely vote distribution of invalid ballots included King County – where the largest number of invalid ballots were cast – the result of the manual recount would likely have been altered to give Mr. Rossi an electoral victory if invalid votes had not been counted. An analysis of King County alone reveals that the invalid vote distribution would result in a Rossi victory, even when excluding contested votes (as of April 4, 2004) from the analysis. (See Section D of this report.)
- 3) Based upon previous research by Profs. Christopher Uggen and Jeff Manza, it is likely that the estimate of how felons voted in this analysis is too conservative, giving Ms. Gregoire the benefit of the doubt. In other words, the rate at which felons vote for a Democratic candidate is likely to be higher than the estimates provided by the precinct-level of analysis here. (See Section E of this report.)

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AWARDS AND HONORS

Distinguished Teaching Award. University of Washington. 1999.
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WORKS IN PROGRESS

Independent Research:

The Political Origins of Religious Liberty. Draft book manuscript.

“Welfare Spending and Religious Participation in the 50 US States.”

“Regulating Religious Minorities in Europe: The Case of Islam” with Carolyn Warner (ASU, Political Science), George Thomas (ASU, Sociology) and Steve Pfaff (UW, Sociology).

“The State and Secularization Theory” Conference on New Perspectives on the Study of Religion in Modern Societies. New York University (April 2004).

“Religious Beliefs and Political Attitudes in Latin America: Evidence from the World Values Survey.”

CONFERENCE PAPERS

“Religious and Political Attitudes in a New and Changing Europe/” American Political Science Association Annual Meeting (Sept. 2004), with Carolyn Warner and Steven Pfaff.

"Protestant Problems? What Protestant Problems?: The Coming of the Golden Age of Catholicism in Latin America." Workshop on Contemporary Challenges to Catholicism in Latin America. Notre Dame University (October 2003).

"The Political Origins of Religious Liberty in Britain and the United States." Paper to be presented at the Society for the Scientific Study of Religion Annual Meeting (October 2003).

"State Welfare Spending and Religiosity: A Cross-National Analysis." Paper presented at the American Political Science Association Annual Meeting (August 2003).

"Religious Fundamentalism and Democracy: A Volatile Mix?" Paper presented at the American Political Science Association Annual Meeting (Sept. 2002).

"The Political Origins of Religious Liberty." Paper presented at the 2000 European Consortium for Political Research (April 2000), the International Conference of Americanists (July 2000) and the American Political Science Association (APSA) Annual Meeting (Sept. 2000).

"A Continental Divide? Rational Choice Theory and Culture in Latin American Studies." Paper presented at a roundtable on rational choice at the APSA Annual Meeting (Sept. 2000).

"Religion and Political Attitudes in Latin America: Evidence from the World Values Survey." Paper presented at the APSA Annual Meeting (Sept. 1999) and the Annual Conference of the Society for the Scientific Study of Religion (Nov. 1999).

"Religion and Democracy in South America: Challenges and Opportunities." Paper presented at the APSA Annual Meeting (Sept. 1998) and the Latin American Studies Association's (LASA) XXI Congress (Sept. 1998).

"State-Building and Religious Resources: An Institutional Theory of Church-State Relations in Latin America and the Middle East." Co-authored with Arang Keshavarzian (Princeton University). Paper presented at the APSA Annual Meeting (Aug. 1997).

"Protestant Growth in Latin America: A Supply-Side Explanation." Paper presented at the LASA XX Congress (April 1997) and Religion, Economics and Politics: Exploring the New Paradigm (mini-conference organized by Anthony Gill at the University of Washington, June 1997).

"An Economic Model of Church-State Relations." Paper presented the APSA Annual Meeting (Aug. 1996).

"Rationality, Religion and Politics: A Methodological Exploration." Paper presented at the APSA Annual Meeting (Aug. 1996).

"The Politics of Religious Regulation in Mexico: Preliminary Observations." Paper presented at the APSA Annual Meeting (Aug. 1995) and the LASA XIX Congress (Sept. 1995).

"The Institutional Limits of Catholic Political Change: An Economic Approach." Paper presented at APSA Annual Meeting (Aug. 1994) and the LASA XVIII Congress (March 1994).

"To Fall from Grace: The Church-State Obsolescing Bargain in Latin America." Paper presented at the APSA Annual Meeting (Aug. 1993).

"Rendering Unto Caesar?: Religious Competition and Church-State Relations in Latin America." Paper presented at APSA Annual Meeting (Aug. 1992) and the LASA XVII Conference (Oct. 1992).

"Preferring the Poor: Religious Competition and Catholic Development Strategy." Paper presented at the CIBER/UCLA Latin American Center Conference (May 1992).

"Responses to Authoritarianism: The Effect of Religious Competition on Catholic Strategy." Paper presented at WPSA Annual Meeting (March 1992).

OTHER CONFERENCE ACTIVITIES

Author Meets Critics

Author/respondent on panel reviewing *Rendering Unto Caesar*. Society for the Scientific Study of Religion and Religious Research Association's Annual Convention (November 1998). *Discussants included Elizabeth Brusco, Roger Finke, Virginia Garrard-Burnett and Laurence Iannaccone.*

Author/respondent on panel reviewing *Rendering Unto Caesar*. LASA XXII Congress (March 2000). *Discussants included David Dixon, Carol Drogus, Ken Serbin and David Stoll.*

Conference Organizer

"Religion, Economics and Politics: Exploring the New Paradigm." Conference held at the University of Washington (June 1997). *Involved 14 scholars from around the country, Europe and Japan presenting papers on rational choice and religion.*

Roundtable Discussant

Keynote Address Discussant. ASREC Annual Meeting (October 2004).

"Rational Choice Institutionalism in Latin America." APSA Annual Meeting (Sept. 2000).

"Threats to Democracy in Latin America." University of British Columbia. Vancouver, Canada (March 1999).

"New Methods for Comparative Politics." WPSA Annual Meeting (March 1999).

"Evangelization and Religious Freedom in Latin America." LASA XXI Congress (Sept. 1998).

Chair and Discussant

- “The Politics of Taxation in Developing Nations.” APSA Annual Meeting (Sept. 2000).
- “Religion and Politics in Comparative Perspective.” WPSA Annual Meeting (March 1999).
- “Issues in Latin American Democratization.” WPSA Annual Meeting (March 1999).
- “Institutions and Economic Reform in Latin America.” WPSA Annual Meeting (March 1998).

Chair

- “Religious Institutions and Politics in Comparative Perspective.” APSA Annual Meeting (August 1997).
- “Religion and Politics in a Neoliberal Latin America.” APSA Annual Meeting (August 1995).

Discussant

- “Religious Politics in Post-Communist States.” APSA Annual Meeting (Sept. 2001)
- “Establishing Justice and the Rule of Law in Emerging Democracies” APSA Annual Meeting (Sept. 2001).
- “Rules of the Game in Medieval Europe.” UCLA Center for Governance (Feb. 2001).
- “Religion and Politics in Israel.” APSA Annual Meeting (Sept. 1996).
- “Aguascalientes Vive: Second Anniversary of the Uprising in Chiapas – Roundtable Discussion.” Roundtable Discussion sponsored by the University of Washington’s Jackson School of International Affairs and Ethnic Cultural Center (Jan. 1996).
- “The Political Economy of Neoliberalism.” WPSA Annual Meeting (March 1994).

Program Chair

- Religion and Politics Section. APSA Annual Meeting (Sept. 2001).

RESEARCH FELLOWSHIPS AND GRANTS

Grants and Fellowships Received.

- Seed Grant. Center for the Study of Religion and Conflict. Arizona State University.
Collaborative grant with Carolyn Warner (ASU), George Thomas (ASU) and Steve Pfaff (UW) to study how European governments regulate Muslim religious minorities. \$20,000. Currently under review at the National Science Foundation.
- Royalty Research Fund Grant (University of Washington), 1999-2000.
Research grant provided for research on the regulation of religion in Argentina, Chile and Uruguay. \$39,000.
- Institute for Teaching Excellence (University of Washington), 1999.
Fellowship and week-long training program for designing innovative curriculum. \$1,000.
- Junior Faculty Development Award (University of Washington). 1998.
Grant providing seed money research on religious liberty. \$3,000.

- National Science Foundation Educational Development Grant (co-PI), 1997.
Grant provided to develop a political science computer laboratory at the University of Washington. Steven Majeski, PI. \$45,000.
- Jackson School of International Studies and the UW Graduate School, 1997.
Grant to hold a conference entitled "Religion, Economics and Politics: Exploring the New Paradigm" in June 1997. \$8,000.
- Society for the Scientific Study of Religion Small Grant, 1996.
Grant for research on the regulation of religion in Argentina. \$500.
- Royalty Research Fund Grant (University of Washington), 1995-96.
Research grant provided for research on the regulation of religion in Mexico. \$10,000.
- Arts and Sciences Exchange Program Travel Grant (University of Washington), 1995.
Grant provided for developing an undergraduate student exchange program between the University of Washington and University of Patagonia, Argentina. \$8,000.
- National Science Foundation Dissertation Grant, 1993-1994.
Grant for research on Catholic political strategy in Chile and Argentina. \$10,000.
- UCLA Latin American Center Grant, 1993-1994.
Seed money for research on Catholic political strategy in Argentina. \$1,500.
- UCLA Graham Fellowship, 1993 and 1994.
Fellowship paying tuition and stipend for graduate education.
- Ford Foundation Graduate Student Teaching Grant, UCLA 1993.
Grant provided to develop and teach specialized seminar in Latin American politics. Covered tuition and salary.
- Ford Foundation Cluster Program Teaching Grant, UCLA 1992.
Grant provided to develop and teach specialized seminar in social science analysis. Covered tuition and salary.
- UCLA Latin American Center Grant, 1992-1993.
Seed money for research on Catholic political strategy in Chile. \$1,800.
- UCLA Graduate Fellowship, 1987-1988.
Fellowship paying tuition and stipend for graduate education.

INVITED LECTURES

Open invitations to give weeklong seminars at Koc University (Istanbul, Turkey) and George Mason University (Department of Economics). Both scheduled for winter 2004.

“The Emergence of Religious Liberty in Latin America”

Arizona State University. February 2004.

“Social Welfare and Religiosity: A Comparative Approach”

Duke University. September 2004.

Pacific Northwest National Laboratories. August 2004.

Baylor University. December 2003.

“The Political Origins of Religious Liberty.”

Georgetown University. November 2004.

Baylor University. December 2003.

Arizona State University. Center for the Study of Religion and Conflict. April 2003.

Harvard University. Weatherhead Center. April 2002

Rice University. Dept. of Political Science. April 2001.

“Elementary, Dr. Watson: Deductive Theorizing in Comparative Politics.”

University of Pittsburgh. Dept. of Political Science. February 2001.

“The Economics of Evangelization.”

University of Pittsburgh. Dept. of Political Science. February 2001.

UCLA, Dept. of Sociology. Feb. 2001.

University of New Mexico. Dept. of Political Science. April 2000.

Harvard University. Rockefeller Center. November 1999.

Emory University. Law School. October 1999.

University of Washington, Tacoma. March 1999.

“Religion and Democracy in Latin America.”

McGill University. Dept. of Political Science. November 1998.

“Rendering Unto Caesar: The Political Economy of Church-State Relations in Latin America.”

Santa Clara University. Dept. of Economics. January 1998.

“The Political Economy of Religious Competition in Latin America.”

University of Chicago. “Rational Models Seminar” (organized by Gary Becker and David Laitin). December 1997.

“A Town Meeting on Challenges in Latin American Development: Focus on Peru.”

World Affairs Council, Seattle WA. May 1996.

“La economía política de religión en América Latina.”

Universidad de las Americas, Puebla (Mexico). June 1995.

BROWN BAG LUNCH PRESENTATIONS (UW)

These talks are part of a series organized by Anthony Gill and sponsored by the UW Latin American Studies Program, involving approximately 8-9 speakers per year.

- “Religious Values and Politics in Latin America” (April 2000).
- “Catholicism Meets Communism: Reflections on the Pope’s Visit to Cuba” (Feb 1998).
- “Protestant Growth in Latin America: A Supply-Side Explanation” (March 1997).
- “The Politics of Regulating Religion in Mexico” (October 1996).
- “To Fall from Grace: Church-State Obsolescing Bargains in Latin America” (April 1995).

OTHER PROFESSIONAL ACTIVITIES

Book Review Editor, *Comparative Political Studies* (1998 – present).

Founding Board Member, *Association for the Study of Religion, Economics & Culture*.

Editorial Boards

Comparative Political Studies (1998 – present).

Journal for the Scientific Study of Religion (2003 – present)

Georgetown University Press, series on religion (2002 – present)

Guest Editor, *Journal for the Scientific Study of Religion*. Special edition on liberation theology. Winter 2002.

Section Officer, APSA Religion and Politics Section (1998 – present).

Program Chair. Religion and Politics Section. 2001 APSA Conference.

Article Referee

American Journal of Political Science

American Political Science Review

Comparative Political Studies

Comparative Politics

American Sociological Review

Rationality and Society

Journal for the Scientific Study of Religion

Book Manuscript Referee

Princeton University Press

University of Notre Dame Press

University of Pittsburgh Press

University of Florida Press

Rowman & Littlefield

Lexington Books

Broadview Press

Oxford University Press

Referee for Best Book Award. Society for the Scientific Study of Religion (2004).

Referee for Best Paper Award “Religion and Politics” section of the APSA (1995).

Referee for Widlasky Award given for Best Dissertation in the field of religion and politics. Given by the “Religion and Politics” section of the APSA (1998-99).

Referee for Best Student Paper Award for the Society for the Scientific Study of Religion/Religious Research Association (1999).

Departmental Committees/Activities (University of Washington)

Chair, Undergraduate Education Committee (1997 – 2000, 2001-02).

Executive Committee (1997 – 2000, 2001-present)

CPE/IPE Hiring Search Committee (1998 - 2000).

Development Committee (1999 - present), chair (2003 – present)

Political Economy Undergraduate Advisor (1994 - 1999).

Representative to Center for Social Science Computing & Research (1994 - 1999).
Political Economy Field Committee (1994 - present).
Comparative Politics Field Committee (1994 - present).
Committee on Undergraduate Education (1994 - 2002).
Computer Collaboratory Committee (1995 - 1999).
UW Political Science Graduate Admissions (1995).

Organizer, UW Latin American Studies Program's "Brown Bag Lunch Series" (1994 - 1998).

TEACHING EXPERIENCE

Courses Taught

Research Design and Data Analysis (graduate seminar)
Quantitative Data Analysis (graduate seminar)
Comparative Politics (graduate core course)
Rational Choice in Comparative Politics (graduate seminar)
Latin American Politics (undergraduate and graduate)
International Political Economy of Latin America
Political Science as a Social Science (undergraduate methodology)
Introduction to Political Economy
Introduction to Comparative Politics
Religion and Politics (graduate and undergraduate)

Participant in the University of Washington's Faculty Initiative on Instruction (1994).
Participant in Institute for Teaching Excellence. University of Washington (June 1999).
Facilitator. "Uses of Technology in Teaching." Fourth Annual Faculty Workshops on Teaching and Learning. University of Washington (August 1999).
Facilitator. "Course Design" and "Microteaching Video Sessions." Faculty Fellows Program. University of Washington (Sept. 2000 - 2004).
Facilitator. "Uses of Technology in Teaching." Collegium on Teaching Large Lectures (April 2000 and 2001).

TEACHING FIELDS

Comparative Politics	Methodology
Political Economy	Religion & Politics
Latin American Politics	

Ph.D. THESIS

Rendering Unto Caesar: Religious Competition and Church-State Relations in Latin America, 1930-1979.

Barbara Geddes, chair; Jeffrey Frieden; Michael Wallerstein, David Lopez.

PROFESSIONAL AFFILIATIONS

American Political Science Association.
Society for the Scientific Study of Religion.
Western Political Science Association.

LANGUAGES

Spanish Proficient speaking. Fluent reading and writing.

PERSONAL

Hobbies include: Running (2 time marathoner), basketball, weightlifting, racquetball, swimming, hiking, astronomy, geology, and photography.

REFERENCES

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DEMOCRATIC CONTRACTION? POLITICAL CONSEQUENCES OF FELON DISENFRANCHISEMENT IN THE UNITED STATES

CHRISTOPHER UGGEN
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Northwestern University

Universal suffrage is a cornerstone of democratic governance. As levels of criminal punishment have risen in the United States, however, an ever-larger number of citizens have lost the right to vote. The authors ask whether felon disenfranchisement constitutes a meaningful reversal of the extension of voting rights by considering its political impact. Data from legal sources, election studies, and inmate surveys are examined to consider two counterfactual conditions: (1) whether removing disenfranchisement restrictions alters the outcomes of past U.S. Senate and presidential elections, and (2) whether applying contemporary rates of disenfranchisement to prior elections affects their outcomes. Because felons are drawn disproportionately from the ranks of racial minorities and the poor, disenfranchisement laws tend to take more votes from Democratic than from Republican candidates. Analysis shows that felon disenfranchisement played a decisive role in U.S. Senate elections in recent years. Moreover, at least one Republican presidential victory would have been reversed if former felons had been allowed to vote, and at least one Democratic presidential victory would have been jeopardized had contemporary rates of disenfranchisement prevailed during that time.

THE RIGHT TO VOTE is a cornerstone of democratic governance and a fundamental element of citizenship in democratic societies—one that “makes all other political rights significant” (Piven and Cloward 2000:2). Although the timing and sequencing of the establishment of formal voting rights has varied from country to country, it has almost always been a slow, contested,

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and uneven process (Bowles and Gintis 1986:43–44, 56; Collier 1999; Rokkan 1970: 31–36; Rueschemeyer, Stephens, and Stephens 1992; Therborn 1977). As Dahl (1998) puts it, “In all democracies and republics throughout twenty-five centuries the rights to engage fully in political life were limited to a minority of adults” (p. 89). Political and economic elites often resisted the extension of voting rights to subordinate

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groups, including women, youth, the non-propertied, workers, poor people, racial and ethnic groups, and others (Keyssar 2000; Markoff 1996:45–64; Wiebe 1995).

Yet over the course of the nineteenth and twentieth centuries, restrictions on the franchise within countries claiming democratic governance have gradually eroded, and universal suffrage has come to be taken for granted as a key component of democracy in both theory and practice (Dahl 1998:90). One recent survey reports that by 1994, fully 96 percent of nation-states claimed to formally enfranchise adult men and women citizens alike (Ramirez, Soysal, and Shanahan 1997:735).¹ To proclaim democratic governance today means, at a minimum, universal suffrage for all citizens.

We consider a rare and potentially significant counter-example to the universalization of the franchise in democratic societies: restrictions on the voting rights of felons and ex-felons. Felon disenfranchisement constitutes a growing impediment to universal political participation in the United States because of the unusually severe state voting restrictions imposed upon felons and the rapid rise in criminal punishment since the 1970s. While a number of other countries (including the United Kingdom, Russia, and many of the post-Soviet republics) deny voting rights to prison inmates, the United States is unique in restricting the rights of nonincarcerated felons (who, as we show below, make up approximately three-quarters of the disenfranchised population). In many European countries, including Ireland, Spain, Sweden, Denmark, and Greece, as well as Australia and South Africa, inmates retain the legal right to vote even while in prison (Australian Electoral Commission 2001; Ewald 2002; Fellner and Mauer 1998).² In a number of other countries, voting restrictions are contingent on the length

¹ To be sure, many of these countries have incomplete or “façade” democracies without fully competitive elections (Markoff 1996, chap. 5). Even within the most democratic countries, barriers to participation inevitably persist (e.g., registration requirements, barriers faced by disabled voters, difficulties accessing polling places, especially when elections are held on working days). Every country excludes noncitizen immigrants from voting in national elections.

or type of sentence imposed (among these countries are Austria, Belgium, Italy, and Norway in Europe, and Canada, Australia, and New Zealand elsewhere). Among postindustrial democracies, the United States is virtually the only nation to permanently disenfranchise ex-felons as a class in many jurisdictions, and the only country to limit the rights of individuals convicted of offenses other than very rare treason or election-related crimes. Finland and New Zealand disenfranchise some ex-felons for specific election offenses, but only for a limited time (Fellner and Mauer 1998). Germany allows, by judicial discretion, the disenfranchisement of those convicted of election offenses and treason for a maximum of five years beyond their sentence (Demleitner 2000). The United States stands alone in the democratic world in imposing restrictions on the voting rights of a very large group of nonincarcerated felons.

As many recent analysts have documented (Donziger 1996; Lynch 1995; Savelsberg 1994; Sutton 2000), the United States is also exceptional for the rate at which it issues felony convictions (and thus removes the right to vote). For example, the incarceration rate in the United States in 2000 was 686 per 100,000 population, compared with rates of 105 in Canada, 95 in Germany, and only 45 in Japan (Mauer 1997a; U.S. Department of Justice [henceforward USDOJ] 2002; Walmsley 2002), and similar disparities can also be found for nonincarcerated felons.

Whether felon disenfranchisement in the United States actually constitutes a threat to democracy, however, is not a simple question. Modern democratic governance entails a set of macro-political institutions that register citizens' preferences through (among other things) regular competitive elections (Bollen 1979; Dahl 1998; Przeworski 1991, chap. 1). For democratic governance to be threatened, disenfranchisement must reach levels sufficient to change election outcomes. Raw counts of the size of the disen-

² We thank Joe Levinson at the Prison Reform Trust, and Femke van der Meulen at the International Centre for Prison Studies, both in London, for making the results of their international survey of felon voting rights in Europe available to us.

franchised felon population are inconclusive: However much the loss of voting rights matters for affected individuals, there may be no effect on political outcomes and hence, no substantive macro-level impact. Group-level analyses face the same limitations. Some analysts have focused on the disproportionate racial impact of felon disenfranchisement (Harvey 1994; Shapiro 1993) and on the widely reported statistical estimate that approximately one in seven African American men are currently disenfranchised (Fellner and Mauer 1998). While unquestionably important for many reasons, the disproportionate racial impact of felon disenfranchisement cannot by itself address the implications for American democracy as a whole. Given these considerations, we develop an appropriate, macro-level test. We suggest that determining whether felon disenfranchisement has had an impact on American democracy requires examining the extent to which it has directly altered actual electoral outcomes.

Because felon voting rules are state-specific, the handful of earlier studies of the political consequences of felon disenfranchisement estimated the average impact of disenfranchisement on election turnout rates across the states (Hirschfield 2001; Miles 2000). In the analyses developed here, by contrast, we advance an alternative, counterfactual approach. We examine specific elections and test whether the inclusion of felon voters at predicted rates of turnout and party preference would have been sufficient to change actual election outcomes. We use data on voter turnout from the Current Population Survey's Voter Supplement Module, and data on voting intention from the National Election Study, to estimate the likely voting behavior of the disenfranchised felon population. We utilize information on felon characteristics from censuses and surveys of prison inmates to estimate the size and social distribution of the felon population. Combining these data sources, we are able to estimate the net votes lost by Democratic candidates in closely contested U.S. Senate and presidential elections, and to assess the overall impact of felon disenfranchisement on the American political landscape. Finally, we use unique longitudinal data on criminal background and political behavior to test the

reasonableness of the assumptions we make in our voting analyses, drawing on newly available data from the 2000 wave of the Youth Development Study (Mortimer forthcoming).

We present our paper in five parts. First, we develop the theoretical and historical background of our topic, situating our empirical analyses in the literatures on democratic theory and American criminal justice. Second, we describe the logic of our investigation. Third, we address data sources and methodological issues, presenting our estimates of the size of the disenfranchised felon population in each state. Fourth, we offer two sets of results: estimates of the likely turnout and vote choice of felons if they had the right to vote, and confirmatory analyses from the Youth Development Study. Last, we discuss some of the implications of our results.

THEORETICAL AND HISTORICAL BACKGROUND

MODELS OF UNIVERSAL SUFFRAGE AND AMERICAN DEMOCRACY

The current state of democracy in America is frequently characterized as troubled. Low turnout rates (Piven and Cloward 2000; Putnam 2000), high levels of public apathy (Eliasoph 1998), poor information and citizen ignorance (Delli Carpini and Keeter 1996), declining trust in the political system (Brooks and Cheng 2001; Nye, Zelikow, and King 1997), a "crisis" of the party system (Burnham 1982) characterized by rising independent partisanship, candidate-centered politics, and voter dealignment (Wattenberg 1991, 1994) are among the symptoms most frequently identified in the recent literature. Yet, virtually no attention has been paid to issues surrounding the right to vote.³

A lack of attention to voting rights reflects the predominant scholarly consensus that suffrage has been a settled issue since the passage and enforcement of the Voting Rights Act of 1965. Observing the early ex-

³ A partial exception to this claim has resulted from the aftermath of the 2000 presidential election and the controversies growing out of the Florida vote (e.g., National Commission on Federal Election Reform 2001).

tension of the franchise to nonpropertied white men in the United States in the 1830s, Tocqueville ([1835] 1969) famously asserted, "When a nation begins to modify the elective qualification one can be sure that sooner or later it will abolish it altogether. That is one of the most invariable rules of social behavior" (p. 59). To be sure, democratic governance has been overturned in many countries over the course of the past 150 years, in some cases more than once (Markoff 1996).⁴ Such societal-wide democratic reversals have typically entailed the elimination of democratic institutions and free elections as part of larger shifts to authoritarian forms of governance. In such cases, the right to vote in meaningful elections is either completely eliminated or rendered irrelevant; *selective* disenfranchisement of particular groups, however, is rarely the source of the turn away from democracy. Democratic theory suggests that suffrage rights are exceptionally sticky: Once the vote is extended to a particular segment of the population, it is rarely removed as long as the polity as a whole remains democratic.

The history of suffrage rights in the United States has appeared to many observers to have more or less followed a Tocquevillian model, even if unevenly. Although the struggle to extend the franchise to all continued for some 130 years after Tocqueville wrote, the history of suffrage has been generally viewed as a steady march toward universalism (Flanigan and Zingale 2002:31-34; Verba, Nie, and Kim 1978:5; Williamson 1960). As keen an observer of the limitations of American democracy as Schattschneider (1960) could assert that "one of the easiest victories of the democratic cause in American history has been the extension of the suffrage. . . . The struggle for the ballot was almost bloodless, almost completely peaceful, and astonishingly easy" (p. 100). The dominant assumption in the literature today is that

⁴ Among the most important of these anti-democratic waves were the rise of fascist governments in Europe between the two world wars and the uneven development of democratic governance in Asia and Central and South America after World War II (for a global overview, see Rueschemeyer et al. 1992).

"at least since the voting rights reforms of the 1960s, political rights have been universalized in the United States. With relatively insignificant exceptions, all adult citizens have the full complement of political rights" (Verba, Scholzman, and Brady 1995:11).

Recent critical historical accounts have challenged unilinear models of democratic extension, emphasizing the uneven development of suffrage over the course of American history (Keyssar 2000; Rogers 1992; Shklar 1991; Wiebe 1995). This more recent scholarship describes the halting, and at times reversible, processes through which universal suffrage finally came to be adopted in the United States. Examinations of state and local variation in the timing and extension of the franchise reveal this pattern most clearly. The possibility that growing felon disenfranchisement may constitute a challenge to the legitimacy of democratic elections, however, has not generally been considered (for one notable exception, see Keyssar 2000:308).

The widespread consensus around the view that universal suffrage has been attained seems to be driven by a simple but plausible assumption: There is no reason to think that disenfranchisement has any substantive impact on political outcomes, as it affects only a small group of individuals; hence, while it may be an interesting legal or philosophical question, it does not by itself pose an empirical threat to democratic governance. Yet there are reasons to believe that felon disenfranchisement has not had a neutral impact on the American political system.

Racial minorities (Kennedy 1997; Mauer 1999; Tonry 1995) and the poor (USDOJ 1993, 2000b; Wilson and Abrahamse 1992; Wolfgang, Thornberry, and Figlio 1987) are significantly overrepresented in the U.S. criminal justice system. We estimate that 1.8 million of the 4.7 million felons and ex-felons currently barred from voting are African Americans (see Appendix Tables A and B). Because African Americans are overwhelmingly Democratic Party voters (Dawson 1994; Huckfeldt and Kohfeldt 1989; Tate 1993), felon disenfranchisement erodes the Democratic voting base by reducing the number of eligible African Americans voters. Moreover, the white felon population is

principally composed of poor or working-class offenders (USDOJ 1993, 2000b) who are also likely to vote Democratic (although not nearly to the same extent as African Americans) (Form 1995; Hout, Brooks, and Manza 1995). According to a nationally representative survey of state prison inmates, less than one-third of all state prisoners had completed high school, and fewer than half reported an annual income of \$10,000 in the year prior to incarceration (USDOJ 1993:3, 2000b). In the southern states, where disenfranchisement laws tend to be most restrictive, education and income levels are even lower (tables available on request from authors). For all of these reasons, then, the possibility at least exists that felon disenfranchisement affects the outcomes of democratic elections by taking net votes from the Democratic Party.

CRIMINAL JUSTICE AND FELON DISENFRANCHISEMENT

The possibility that felon disenfranchisement could be influencing recent electoral outcomes is largely tied to changes in the criminal justice regime over the past three decades. For a 50-year period, from the 1920s to the early 1970s, United States incarceration rates fluctuated within a narrow band of approximately 110 prisoners per 100,000 people. The policy consensus accompanying this stability was undergirded by a model of "penological modernism" in which the rehabilitation of offenders was the primary goal of incarceration (Rothman 1980). Structural elements of the criminal justice system, including probation, parole, and indeterminate sentencing, were designed to reform offenders and reintegrate them into their communities. The model began to break down in the 1960s, however, as Republican presidential candidates Barry Goldwater (in 1964), and Richard Nixon (in 1968), and other conservative and moderate politicians (such as Nelson Rockefeller in New York) successfully promoted more punitive criminal justice policies (Beckett 1997; Jacobs and Helms 1996; Savelsberg 1994). By the mid-1970s, a rising chorus of conservative scholars, policy analysts, and politicians were advocating punitive strategies of deterrence and incapacitation, dis-

missing the rehabilitative model as "an anachronism" (Martinson 1974:50; Wilson 1975). These trends continued in the 1980s and 1990s, with the Reagan, Bush, and Clinton administrations aggressively focusing the nation's attention on problems associated with drug use and the incarceration of drug offenders (Beckett and Sasson 2000).

The success of the conservative crime policy agenda over the past three decades has had a remarkable impact, producing an enormous increase in felony convictions and incarceration, and a corresponding increase in rates of felon disenfranchisement. Since 1970, the number of state and federal prisoners has grown by over 600 percent, from fewer than 200,000 to almost 1.4 million (USDOJ 1973:350, 2001a:1). Other correctional populations have also grown by rate and number, with the number of felony probationers and parolees quadrupling from 1976 to 2000 (USDOJ 1979, 2001b). When jail inmates are added to state and federal prisoners, approximately 2 million Americans are currently incarcerated, with an additional 4.5 million supervised in the community on probation or parole (USDOJ 2000a), and some 9.5 million ex-offenders in the general population (Uggen, Manza, and Thompson 2000).

Not all of these felons and ex-felons are disenfranchised, as ballot restrictions for felons are specific to each state. Restrictions were first adopted by some states in the post-Revolutionary era, and by the eve of the Civil War some two dozen states had statutes barring felons from voting or had felon disenfranchisement provisions in their state constitutions (Behrens, Uggen, and Manza 2002; Keyssar 2000:62-63). In the post-Reconstruction South, such laws were extended to encompass even minor offenses (Keyssar 2000:162), as part of a larger strategy to disenfranchise African Americans—a strategy that also included devices such as literacy tests, poll taxes, and grandfather clauses (see Kousser 1974). In general, some type of restriction on felons' voting rights gradually came to be adopted by almost every state, and at present 48 of the 50 states bar felons—in most cases including those on probation or parole—from voting. At least 10 of those states also bar ex-felons from voting, 2 other states permanently disenfran-

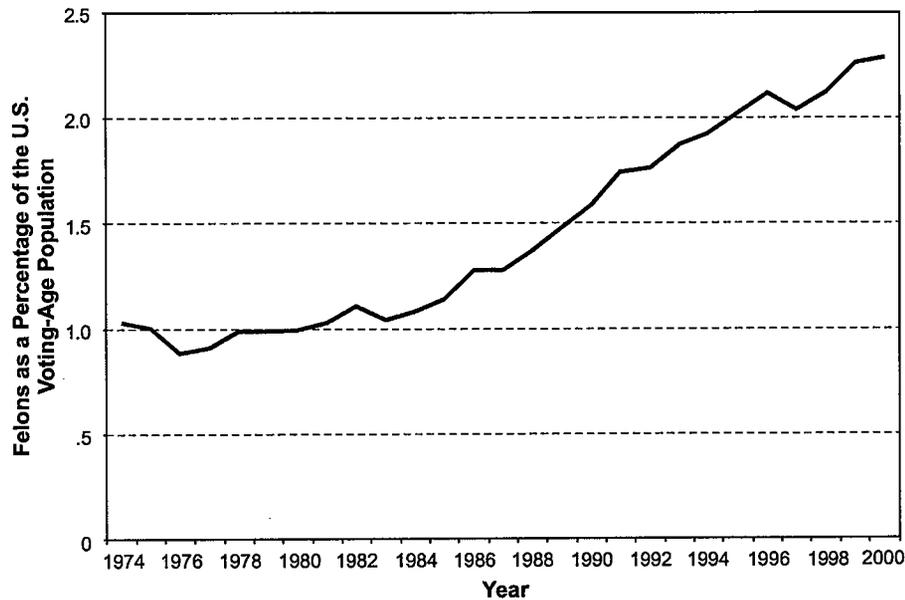


Figure 1. Felon Disenfranchisement as a Percentage of the U.S. Voting-Age Population, 1974 to 2000

Note: Estimates are based on life tables constructed from U.S. Department of Justice and U.S. Census Bureau publications (U.S. Bureau of the Census 1948–2000; USDOJ 1948–2001). All sources are described on pages 785–86.

chise recidivists, and 1 state requires a post-release waiting period.⁵

Overall, the combination of an increasing number of convictions, state laws that prevent most felons from voting, and the steady cumulative growth of the disenfranchised ex-felon population in those states that permanently restrict their voting rights has produced a significant overall growth in the disenfranchised population. Our estimates suggest that the total disenfranchised population has risen from less than 1 percent of the electorate in 1976 to 2.3 percent of the electorate

in 2000. Figure 1 shows the steady growth of the percentage of the voting age population disenfranchised over this period. The slight dips in the mid-1970s and late-1990s reflect certain states liberalizing their restrictions on ex-felons (see Behrens et al. 2002; Manza and Uggen forthcoming).

PRIOR RESEARCH AND STRATEGY OF ANALYSIS

Our primary research question is whether felon disenfranchisement has had meaningful political consequences in past elections. In other words, would election outcomes have differed if the disenfranchised had been allowed to vote? To fully answer this counterfactual question, we must determine how many felons would have turned out to vote, how they would have voted, and whether those choices would have changed the electoral outcomes. If so, a closely related consideration is whether disenfranchisement has affected public policy through feedback processes tied to these electoral outcomes. Figure 2 provides a schematic representation of the questions we pose. Our burden is to estimate who votes (a), their vote choice (b), and the electoral

⁵ At present, Vermont and Maine are the only states that allow incarcerated felons to vote. Referenda eliminated voting rights for Utah and Massachusetts inmates in 1998 and 2000, respectively. Alabama, Florida, Iowa, Kentucky, Mississippi, Nevada, Tennessee (for those convicted prior to 1986), Virginia, Washington (for those convicted prior to 1984), and Wyoming permanently disenfranchise felons unless reinstated by a clemency procedure. Arizona and Maryland permanently disenfranchise certain recidivists (those with two or more felony convictions), and Delaware requires a five-year waiting period. New Mexico rescinded permanent ex-felon disenfranchisement in 2001, and Maryland narrowed its voting ban on ex-felons in 2002.

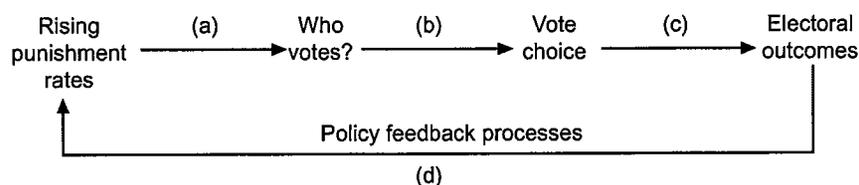


Figure 2. Schematic Diagram of the Impact of Felon Disenfranchisement on American Electoral Outcomes and Policy

outcomes (c). In the conclusion we suggest some possible views regarding the feedback process (d) as well.

These are difficult questions. A group the size of the disenfranchised felon population *could* have a considerable political impact, but given its composition, neither its rate of political participation nor its preferences are likely to mirror those of the general population. In this case, and in observational research more generally, information is missing on an important counterfactual condition (Holland 1986). If we could assume unit homogeneity—that felons would have voted in the same numbers and with the same preferences as nonfelons—we could simply count the disenfranchised felons and apply national turnout and party-preference averages. But because felons differ from nonfelons in ways that are likely to affect political behavior, this sort of blanket assumption is likely untenable.

Another way to measure political impact is to estimate the average causal effect of a treatment—in this case laws stripping criminals of their voting rights. In a state-level analysis of National Election Study data, Miles (2000) reports that rates of voter registration and turnout tend to be lower in states with strict felon disenfranchisement laws than in states lacking such laws, but that the differences are not statistically significant (cf. Hirschfield 2001). Although such studies provide evidence about the statistical significance of the *average* effect of disenfranchisement—and suggest that this average effect is likely to be small—it is possible that even such small differences may have great practical significance.

First, it may be reasonable to examine the impact of disenfranchisement on particular elections rather than the overall impact because political choices are less about average causal effects than about tipping points.

In some elections, particularly those in two-party systems requiring a simple plurality for victory (as in most U.S. elections), a small number of votes are often decisive. In this case, we also have a great deal more information at our disposal than the standard statistical approach assumes, as we have access to population data rather than sample data. We know the precise number of votes cast for each candidate and the plurality or margin of victory in every election. We also know the exact number of prisoners, probationers, and parolees in each state who cannot vote, and we can reasonably estimate the number of ex-felons in states that restrict their voting rights. The only real questions, then, are how many felons and ex-felons would have turned out to vote, and which candidate they would have selected.

Assuming that nothing else about the candidates or elections would have changed, we therefore undertake a historical accounting of the counterfactual condition: What would have happened had felons been allowed to vote in U.S. Senate and presidential elections? We calculate the number of felons and ex-felons affected, then estimate voter turnout and vote choice on the basis of their known characteristics to determine the number of votes lost to Democratic candidates. To assess the political consequences of disenfranchisement, we then compare the actual margin of victory with counterfactual results that take into account the likely political behavior of disenfranchised felons.

DATA AND METHODS

TURNOUT AND VOTE CHOICE

Our analyses of turnout and vote choice utilize standard election data sources. To derive turnout estimates for the disenfranchised population, we analyze data from the Voter

Supplement File of the Current Population Survey (CPS). The CPS is a monthly survey of individuals conducted by the U.S. Census Bureau. Since 1964, in each November of even-numbered (national election) years, the survey includes questions about political participation. All sampled households are asked, "In any election some people are not able to vote because they are sick or busy or have some other reason, and others do not want to vote. Did [you/another household member] vote in the election on November ___?"

Questions of this type produce slightly inflated estimates of turnout in the CPS series, with the inflation factor ranging from a low of 7.5 percent (1968) to a high of 11.1 percent (1988) in presidential elections between 1964 and 1996 (U.S. Bureau of the Census 1998:2). Accordingly, after obtaining estimated turnout percentages for the felon population, we reduce them by a CPS inflation factor, multiplying predicted turnout rates by the ratio of actual to reported turnout for each election.⁶ Because turnout is most overreported among better-educated citizens (Bernstein, Chadha, and Montjoy 2001; Silver, Anderson, and Abramson 1986), inflation rates are likely lower among disenfranchised felons than among non-felons, so this procedure is likely to produce conservative estimates for our study.

Our estimates of the expected vote choice of disenfranchised felons are developed using National Election Study (NES) data for 1972 to 2000. We begin in 1972 because it is the first presidential election year for which we have reasonably proximate sociodemographic information about incarcerated felons and because it immediately precedes major increases in incarceration rates. The NES is the premier source of U.S. voting data. It includes a rich battery of sociodemographic and attitudinal items and the lengthy

⁶ The use of proxy respondents to report on the voting behavior of others in the household is a potentially greater threat to validity. However, U.S. Census Bureau verification tests show that proxy and self-reports were in agreement about 99 percent of the time in 1984 and 98 percent of the time in 1992 (U.S. Bureau of the Census 1986:10, 1993). Also, the CPS has produced much more reliable turnout estimates than the National Election Study, which typically overestimates turnout by 18 to 25 percent.

time-series needed for this investigation. The biggest drawback of the NES series is that while it asks respondents how they voted in presidential and congressional elections, there are too few respondents ($N < 2,500$) to permit meaningful state-level analyses.⁷

To analyze the expected turnout and vote choice of disenfranchised felons, we do not have any survey data that asks disenfranchised felons how they would have voted. We can, however, "match" the felon population to the rest of the voting-age population to derive such an estimate and then test the reasonableness of this approach with a supplementary survey analysis. Our models of political behavior include sociodemographic attributes that have long been shown in voting research to contribute to turnout and vote choice: gender, race, age, income, labor force status, marital status, and education (Manza and Brooks 1999, chap. 7; Teixeira 1992; Wolfinger and Rosenstone 1980). We analyze age and education (in years) as continuous variables. Income is a continuous variable measured in constant 1999 dollars. Labor force status, marital status, gender, and race are dichotomies (an African American–non-African American dichotomy necessitated by the lack of information about Hispanic voters in the NES series prior to the 1980s). We use similar measures for both the turnout analyses (using CPS data) and vote choice analyses (using NES data).⁸ Once we have estimated political participation and party preference equations on the general population, we insert the mean characteristics of disenfranchised felons into these equations to obtain their predicted

⁷ It would be possible to obtain state-level data for many elections, such as data collected in recent elections by the Voter News Service. Unfortunately, these surveys generally lack the battery of items needed to match the characteristics of the felon population to those of the survey respondents, and are therefore not suitable for deriving estimates of felon voting behavior.

⁸ Ideally, we would also have data on partisanship, and candidate and policy preferences to develop estimates of felons' voting behavior. Because such information is currently unavailable, below we supplement the national analysis with additional analyses from a longitudinal study that allows us to more directly compare the voting behavior of felons and nonfelons.

rates of turnout and Democratic Party preference. We obtain information on the socio-demographic characteristics of convicted felons from the *Survey of State Prison Inmates* data series (USDOJ 1993, 2000b).

The dependent variables in both the turnout and vote-choice analyses are dichotomous, so we estimate logistic regression models of the probabilities of participation and Democratic vote choice, respectively. In the turnout equations, the outcome is coded 1 for voted, and 0 for did not vote. In the voting equations, the outcome is coded 1 for Democratic and 0 for Republican choice. We consider only major party voters, as in Senate elections few third-party or independent candidates have come close to winning office.⁹ Coefficients from these regressions are reported in Appendix Table C.

LEGAL STATUS AND CORRECTIONAL POPULATIONS

In addition to estimating the likelihood of voting and the partisan alignment of felons, we must also determine their absolute numbers in each state. To establish which correctional populations to count among the disenfranchised population, we examined the elector qualifications and consequences of a felony conviction as specified in state constitutions and statutes (Manza and Uggen forthcoming) and referenced secondary sources detailing the voting rights of offenders (Allard and Mauer 1999; Burton, Cullen, and Travis 1986; Fellner and Mauer 1998; Mauer 1997b; Olivares, Burton, and Cullen 1996; USDOJ 1996). To establish the number of disenfranchised felons currently under supervision, we sum the relevant prison, parole, felony-probation, and convicted felony jail populations. The data on felons under supervision come from Justice Department publications, such as the *Correctional Populations in the United States* series. We estimate that on December 31, 2000, 3 million current felons were legally disenfranchised, or slightly less than half of the 6.5 million adults under correctional supervision (USDOJ 2001b). For most states, this calcu-

lation involves a rather straightforward accounting of the prison, parole, and felony probation populations.¹⁰ Convicted felons who serve their sentences in jail represent a smaller but potentially important group not considered in prior estimates (Mauer 1997b). In 1998, for example, 24 percent of felony convictions resulted in jail sentences (USDOJ 1998). We therefore include a conservative estimate of the number of convicted felons in jail—10 percent of the total jail population.

These “head counts” are based, by social scientific standards, on excellent data. Estimating the number of disenfranchised ex-felons not currently under supervision, however, is a greater challenge. Existing estimates vary with the assumptions made by researchers. Important early work by the Sentencing Project (Fellner and Mauer 1998; Mauer 1997b) based estimates on national felony conviction data and state-level reports of criminal offenses between 1970 and 1995. Although valuable, such procedures may make untenable assumptions about stability and homogeneity, such as applying national information on racial composition and criminal convictions to individual states. Moreover, such procedures do not account for deceased felons, nor do they consider those convicted prior to 1970 or after 1995.

We develop alternative estimates based on exits *from* (rather than entry *into*) correctional supervision. Our data sources include the annual *Sourcebook of Criminal Justice Statistics* and *Correctional Populations* series, *Probation and Parole in the United States*, and *Prison and Jail Inmates at Mid-year*. For early years, we also referenced *National Prisoner Statistics*, and *Race of*

⁹ The only independent candidate to win a Senate seat since 1972 was Harry F. Byrd Jr. of Virginia in 1976.

¹⁰ Connecticut, Rhode Island, Vermont, Delaware, Alaska, and Hawaii combine their prison and jail systems. In such cases, we classify felons serving greater than one year as prisoners and felons with shorter sentences as jail inmates (taking 10 percent of the latter group to represent convicted felony jail inmates). For five states that do not distinguish felony and nonfelony probationers, we estimate that 50 percent of probationers are felons (a more conservative figure than the 52 percent national average) (USDOJ 2001b). Jail figures for 2000 were estimated by applying state-specific 1999–2000 prison growth rates to 1999 jail populations.

Prisoners Admitted to State and Federal Institutions, 1926–1986 (all of these are USDOJ publications). We determine the median age of released prisoners based on annual data from the National Corrections Reporting Program (USDOJ 1983–1996). We use recidivism data from national probability samples of prison releasees (USDOJ 1989) and probationers (USDOJ 1992) to establish the number who reoffend. We then compile life tables for the period 1948–2000 to determine the number of released felons lost to recidivism (and therefore already included in our annual head counts) and to mortality each year (e.g., see Bonczar and Beck 1997). Each cohort of disenfranchised releasees is thus successively reduced each year and joined by a new cohort of releasees. This allows us to compute the number of ex-felons no longer under correctional supervision for states that disenfranchise ex-felons.

Our recidivism estimates are based on USDOJ studies of prisoners (1989) and probationers (1992). The prisoner and parolee recidivism rate is 18.6 percent at one year, 32.8 percent at two years, and 41.4 percent at three years. For probationers and jail inmates, the corresponding three-year failure rate is 36 percent. To extend the analysis to subsequent years, we computed a trend line based on the ratio of increases in Hoffman and Stone-Meierhoefer's (1980) study of federal prisoners. By year 10, we estimate a 59.4 percent recidivism rate among former prisoners and parolees, which increases to 65.7 percent by year 52 (the maximum duration in the analysis). Because these rates exceed those of most long-term recidivism studies, they should yield conservative estimates of the disenfranchised ex-felon voting base. We calculate mortality based on the expected number of deaths for African American males (the group with the highest mortality rates) at the median age of release for each state, multiplied by a constant factor of 1.46 to match the high death rates observed in the Justice Department's recidivism study (USDOJ 1989). Age-specific and year-specific mortality data were obtained from the *Statistical Abstract* series "Expectation of Life and Expected Deaths, by Race, Sex, and Age" (U.S. Bureau of the Census 1948–2000).

These ex-felon estimates also account for the fact that some states restore the civil rights of many releasees or only disenfranchise certain ex-felons. Florida, for example, has restored voting rights to over 160,000 disenfranchised felons since the 1960s and does not impose felony adjudication for some probationers who successfully complete their sentences.

THE POLITICAL IMPACT OF FELON DISENFRANCHISEMENT

TURNOUT AND PARTY PREFERENCE

Table 1 shows the estimated national participation rates and voting preferences for disenfranchised felons by year since 1972. These estimates are based on the voting behavior of those matching felons in terms of gender, race, age, income, labor force status, marital status, and education, adjusted for overreporting of voting in the CPS. In short, they provide evidence regarding the likely behavior of hypothetical felon and ex-felon voters. Our estimates of felon turnout range from a low of 20.5 percent (for the 1974 Congressional elections) to a high of 39 percent (for the 1992 presidential election). On average, we predict that about 35 percent of disenfranchised felons would have turned out to vote in presidential elections, and that about 24 percent would have participated in Senate elections during nonpresidential election years. Although these numbers are well below the corresponding rates among non-felons, they suggest that a non-trivial proportion of disenfranchised felons were likely to have voted if permitted to do so.

According to our analysis of party choice in Table 1, our hypothetical felon voters showed strong Democratic preferences in both presidential and senatorial elections. In recent presidential elections, even comparatively unpopular Democratic candidates, such as George McGovern in 1972, would have garnered almost 70 percent of the felon vote. These Democratic preferences are less pronounced and somewhat less stable in senatorial elections. Nevertheless, the survey data suggest that Democratic candidates would have received about 7 of every 10 votes cast by the felons and ex-felons in 14 of the last 15 U.S. Senate election years. By

Table 1. Estimated Turnout and Voting Preferences of Disenfranchised Felons: Election Years 1972 to 2000

Year	Candidate	Presidential Elections		Senate Elections	
		Percent Turnout	Percent Democratic	Percent Turnout	Percent Democratic
1972	McGovern	38.2	69.1	38.2	68.2
1974	—	—	—	20.5	77.1
1976	Carter	34.3	80.7	34.3	79.6
1978	—	—	—	23.0	80.2
1980	Carter	35.7	66.5	35.7	69.6
1982	—	—	—	26.2	76.8
1984	Mondale	38.2	70.1	38.2	68.9
1986	—	—	—	25.3	73.6
1988	Dukakis	30.0	72.8	30.0	79.4
1990	—	—	—	23.8	80.5
1992	Clinton	39.0	73.6	39.0	74.7
1994	—	—	—	23.1	52.2
1996	Clinton	36.1	85.4	36.1	80.4
1998	—	—	—	23.9	69.7
2000	Gore	29.7	68.9	29.7	76.1

Sources: Current Population Survey, National Election Study, and *Survey of Inmates of State Correctional Facilities Series, 1974–1997* (USDOJ 2000b).

removing those with Democratic preferences from the pool of eligible voters, felon disenfranchisement has provided a small but clear advantage to Republican candidates in every presidential and senatorial election from 1972 to 2000.

IMPACT ON INDIVIDUAL U.S. SENATE ELECTIONS

We next use these turnout and party preference rates to gauge the impact of felon disenfranchisement on U.S. presidential and Senate elections. We obtained information on victory margins and Senate composition from standard election data sources (Congressional Quarterly's *America Votes* biennial series 1960–2000). Table 2 applies the voting behavior estimates from Table 1 to these election data and identifies seven elections that may have been overturned if disenfranchised felons had been allowed to vote.

To determine the *net* Democratic votes lost to disenfranchisement, we first multiply the number of disenfranchised felons by their estimated turnout rate (in each state), and the probability of selecting the Democratic can-

didate.¹¹ Because some felons would have chosen Republican candidates, we then deduct from this figure the number of Republican votes lost to disenfranchisement, which we obtain in a similar manner. For the 1978 Virginia election detailed in the top row of Table 2, for example, we estimate that 15,343 of the state's 93,564 disenfranchised felons would have voted (16.4 percent). We further estimate that 12,305 of these voters would have selected Andrew Miller, the Democratic candidate (80.2 percent of 15,343), and that the remaining 19.8 percent (or 3,038) would have chosen John Warner, the Republican candidate. This results in a net total of 9,268 Democratic votes lost to disenfranchisement in the 1978 U.S. Senate race in Virginia, almost double the actual Republican victory margin of 4,721 votes.

In recent policy debates over felon disenfranchisement, restoring voting rights has been most widely discussed for ex-felons who have completed their sentences (Bush 2001; Sengupta 2000). Yet some analysts have asserted that ex-felon voting restric-

¹¹ We draw on the large CPS sample to derive state-level turnout estimates for these key races.

Table 2. The Impact of Felon Disfranchisement on U.S. Senate Elections: 1978 to 2000

Election Year	State	Disenfranchised Population			Estimated Voting Behavior			Republican Victory Margin			Senate Composition		
		Current Felons	Ex-Felons	Total	Turnout Percent	Percent Democratic	Net Democratic Votes Lost	Actual Margin	Counter-factual Margin	Republican Held Seat Through	Actual ^a	Counter-factual	Cumulated Counter-factual
1978	Virginia ^b	21,776	71,788	93,564	16.4	80.2	9,268	4,721	-4,547	2008+	58:41-D	60:39-D	60:39-D
1978	Texas ^c	100,707	89,662	190,369	13.4	80.2	15,408	12,227	-3,181	2008+	58:41-D	60:39-D	60:39-D
1980	<i>Unchanged</i>	—	—	—	—	—	—	—	—	—	53:46-R	51:48-R	51:48-R
1982	<i>Unchanged</i>	—	—	—	—	—	—	—	—	—	54:46-R	52:48-R	52:48-R
1984	Kentucky ^d	20,583	54,481	75,064	38.5	68.9	10,925	5,269	-5,655	2008+	53:47-R	52:48-R	50:50 —
1986	<i>Unchanged</i>	—	—	—	—	—	—	—	—	—	55:45-D	56:44-D	58:42-D
1988	Florida ^e	87,264	206,247	293,512	26.5	79.4	45,735	34,518	-11,217	2000	55:45-D	58:42-D	60:40-D
1988	Wyoming ^f	3,013	6,969	9,982	24.5	79.4	1,438	1,322	-116	2006+	55:45-D	58:42-D	60:40-D
1990	<i>Unchanged</i>	—	—	—	—	—	—	—	—	—	56:44-D	58:42-D	61:39-D
1992	Georgia ^g	131,911	0	131,911	29.6	74.7	19,289	16,237	-3,052	2000	57:43-D	60:40-D	63:37-D
1994	<i>Unchanged</i>	—	—	—	—	—	—	—	—	—	52:48-R	51:49-R	54:46-D
1996	<i>Unchanged</i>	—	—	—	—	—	—	—	—	—	55:45-R	54:46-R	51:49-D
1998	Kentucky ^h	31,456	94,584	126,040	25.4	69.7	12,614	6,766	-5,848	2004+	55:45-R	54:46-R	50:50-D
2000	<i>Unchanged</i>	—	—	—	—	—	—	—	—	—	50:50 —	51:49-D	55:45-D

Sources: Congressional Quarterly, Inc., *America Votes* (1978–2000); Current Population Survey (1978–2000); National Election Study (1978–2000).

^a Data on actual Senate composition taken from U.S. Senate (2002).

^b In Virginia, J. Warner (R) defeated Miller (D) in 1978, Harrison in 1984, Spannaus in 1990, M. Warner in 1996, and Spannaus in 2002.

^c In Texas, Tower (R) defeated Krueger (D) in 1978; Gramm (R) defeated Doggett in 1984, Parmer in 1990, and Morales in 1996; Cornyn defeated Kirk in 2002.

^d In Kentucky, McConnell (R) defeated Huddleston (D) in 1984, Sloane in 1990, Beshear in 1996, and Weinberg in 2002.

^e In Florida, Mack (R) defeated MacKay (D) in 1988, and Rodham in 1994; McCollum (R) defeated Nelson (D) in 2000.

^f In Wyoming, Wallop (R) defeated Vinich (D) in 1988, and Thomas (R) defeated Sullivan in 1994.

^g In Georgia, Coverdell (R) defeated Fowler (D) in 1992, and Coles in 1998. After Coverdell's death in 2000, he was succeeded by Miller (D).

^h In Kentucky, Bunning (R) defeated Baesler (D) in 1998 (Class 3 election).

tions are "electorally insignificant" (*Harvard Law Review* 1989:1303). Is this assumption accurate? The results in Table 2 offer a new perspective. Recall that most states only deprive those currently under some form of correctional supervision of the right to vote; only 15 states additionally disenfranchise some or all ex-felons in 2000 (see Appendix Table A). In only one instance (the late Paul Coverdell's election in Georgia in 1992), however, was a Senate election likely to have been overturned as a result of the disenfranchisement of those actively under correctional supervision.¹² Even in this case, however, the number of current prisoners in Georgia (25,290) and convicted felony jail inmates (2,163) was too small to affect the election. Rather, it was the large number of felony probationers (80,639, or a full 61 percent of the state's disenfranchised population) and parolees (23,819, or 18 percent of disenfranchised Georgians) that likely cost the Democrats the election. As this case illustrates, the political impact varies with the particular correctional populations that are disenfranchised. The other reversible cases in Table 2 all include net Democratic vote losses from *ex-felon* voters.

IMPACT ON U.S. SENATE COMPOSITION

Would changes to a handful of elections have had any real impact? Since 1978, there have been over 400 Senate elections, and we find 7 outcomes that may have been reversed if not for the disenfranchisement of felons and ex-felons. Yet even this small number might have shifted the balance of power in the Senate, which has been fairly evenly divided between the two major parties over this period. To assess this possibility, we recomputed the U.S. Senate composition after each election. Because two Republican seats were overturned in the 1978 elections, the Democratic majority would have increased from 58:41 to 60:39. We followed the beneficiaries of these closely contested elections to see how long their seats remained under Republican control. John Warner of Virginia remains in office today, and John Tower's Texas seat also

¹² Georgia's state constitution disenfranchised "until the granting of pardon" until 1983, when the constitutional ban was lifted upon "completion of this sentence."

remains in Republican hands (with Phil Gramm holding office in 2002). Although we cannot know whether the Democratic Party would have held these seats in subsequent elections, the well-known advantages of incumbency make this a plausible scenario. Of the 32 U.S. Senate elections in 1978, the incumbent party retained the seat through at least 1990 in 29 cases (91 percent), through at least 1996 in 27 cases (84 percent), and through at least 2002 in 23 cases (72 percent). Because incumbent parties are unlikely to hold such seats indefinitely, we cumulate the counterfactual using a more reasonable (though untested) assumption: that the Democrats would have retained these seats as long as the Republicans who narrowly defeated them. This procedure makes strong *ceteris paribus* assumptions, however, so Table 2 also shows "limited counterfactual" results, which assume the victor's party would lose the seat immediately after a single six-year term.

After the 1984 elections, the Republicans held a narrow 53:47 Senate majority. Under the cumulated counterfactual scenario in which disenfranchised felons are calculated to have voted, the Democrats may have achieved parity with the Republicans. In the Kentucky election of 1984, the Republican candidate (Mitch McConnell) narrowly defeated the Democratic nominee by 5,269 votes. Because Kentucky disenfranchises ex-felons as well as current inmates, parolees, and felony probationers, the total number disenfranchised was over 75,000 in 1984. Because 1984 was a presidential election year, turnout was relatively high, and our voting preference model indicates that almost 70 percent of the felon voters would have selected the Democratic candidate. Thus, almost 11,000 Democratic votes were likely lost to disenfranchisement in this election, more than twice the 5,269-vote Republican plurality. With the addition of this seat, and the Virginia and Texas seats discussed above, the counterfactual Senate composition in 1984 shows an even 50:50 party distribution.

Pursuing the counterfactual to the present day, we find that Democratic candidates are likely to have prevailed in Florida (1988), Georgia (1992), and in Kentucky's other seat (1998) if felons had been allowed to vote,

with a narrower reversal occurring in Wyoming (1988). Without felon disenfranchisement, our cumulative counterfactual suggests that Democrats may well have controlled the Senate throughout the 1990s. Although it is possible that both parties may have shifted course or that other factors could have arisen to neutralize this impact, it seems likely that the Senate deadlock after the 2000 elections would have been broken in favor of the Democrats if the ballot had been returned to disenfranchised felons. We discuss the implications of these shifts in our conclusion.

FURTHER TESTS

Our counterfactual results are startling, but subject to a number of assumptions that might be challenged. How robust are these results? Our estimates of disenfranchised felon turnout are based on sociodemographic characteristics at the time of incarceration. For ex-felons, who represent more than one-third of the entire disenfranchised population, we are likely to *understate* political participation because our sociodemographic measures are taken at the time of incarceration. That is, they do not consider changes in age and personal circumstances (for example, greater residential stability, labor force attachment, and marriage) linked to turnout. During or after completion of their sentences, many (though certainly not all) ex-felons acquire greater education and more stable attachments to work, family, and their communities (Sampson and Laub 1993) that may conceivably increase their likelihood of voting.

Moreover, the surveyed *inmate* population is generally less educated, less likely to be married, and less likely to be employed than the entire *felon* population, which also includes a large number of felony probationers who were never sent to prison. For these reasons, we might expect felons and ex-felons to be closer to the national turnout mean than suggested by our model, which is based on sociodemographic characteristics at the time of incarceration. If this were the case, higher estimated turnout rates would *increase* the impact on electoral outcomes.

Finally, our estimates count only 10 percent of the total jail population among the

disenfranchised. Although jail inmates serving time for misdemeanor offenses and those being held prior to trial are legally eligible to vote, they lack access to a polling place, rendering them practically—if not legally—disenfranchised. If we had included all 621,149 jail inmates in 2000 among the disenfranchised (USDOJ 2001a), the political impact would have been even greater.¹³

Nevertheless, other unmeasured characteristics of felons and ex-felons, beyond those captured by the individual- and group-level sociodemographic information available in inmate surveys, could significantly depress political participation among this group. Felons may be less cognizant of, or less willing to accept, basic norms of citizenship and acceptable behavior than nonfelons with otherwise identical characteristics (Gottfredson and Hirschi 1990). If so, they may be less likely to vote than our model based solely on sociodemographic traits would predict.

Our counterfactual analysis hinges on the key assumption that the political behavior of disenfranchised felons would approximate that of nonfelons matched to them in terms of age, race, gender, education, income, and marital status. Although we cannot provide a conclusive test of this assumption, we gathered new data to examine how experiences with the criminal justice system affect voting behavior. The Youth Development Study is a longitudinal survey begun among a sample of ninth graders in 1988 in St. Paul (Minnesota) Public Schools (Mortimer forthcoming). By 1998, when most respondents were 24 to 25 years old, approximately 23 percent had been arrested and 7 percent had been incarcerated. We estimated logistic regression models to see whether a bivariate association exists between criminal justice experiences and voting and, if so, how much of the observed association is due to the socioeconomic and demographic characteristics that we account for in the models we have presented above.

Table 3 shows the effects of arrest on voter turnout and party preference (results for the jail analysis are similar, although there are

¹³ Absentee ballots are not routinely available in jails, although there have been scattered efforts to register jail inmates in recent elections (Mitchell 2002).

Table 3. Logistic Regression Predicting 1996 Voter Turnout and 1996 and 1998 Party Preference: Youth Development Study, St. Paul, Minnesota

Predictors	1996 Voter Turnout				1996-1998 Party Preference	
	Model 1	Model 2	Model 3	Model 4	Clinton (D)	Ventura (I)
<i>Criminal Sanction</i>						
Any arrest	-.681** (.217)	-.264 (.252)	—	—	—	—
Property arrest	—	—	-.323 (.326)	.148 (.353)	-.242 (.488)	-.346 (.597)
Drug/alcohol arrest	—	—	-.341 (.342)	-.171 (.380)	1.274* (.633)	1.599* (.789)
Violent arrest	—	—	-1.246* (.501)	-.851 (.541)	-.758 (.860)	.946 (1.150)
Other arrest	—	—	-.065 (.372)	.145 (.397)	.582 (.589)	.198 (.771)
<i>Voting Predictors</i>						
Nonwhite (vs. white)	—	-.663** (.258)	—	-.628** (.261)	1.216* (.517)	-.792 (.422)
Female	—	.066 (.216)	—	.089 (.215)	1.231* (.266)	-.332 (.281)
Years of education	—	.415** (.063)	—	.414** (.063)	.117 (.085)	-.536** (.102)
Income (in \$1,000s)	—	.036** (.012)	—	.036** (.012)	-.004 (.014)	.001 (.016)
Full-time employment	—	-.257 (.240)	—	-.268 (.240)	-.390 (.313)	-.592 (.342)
Married	—	.088 (.224)	—	.018 (.223)	.130 (.293)	.076 (.301)
Constant	.928** (.107)	-5.429** (.925)	.879** (.103)	-5.452** (.923)	-1.228 (1.281)	8.778** (1.554)
Number of cases	550	550	550	550	354	285
-2 log likelihood	673.8**	599.4**	676.1**	603.4**	373.6**	368.7**

Note: Numbers in parentheses are standard errors.
 p* < .05 *p* < .01 (two-tailed tests)

far fewer jail inmates than arrestees; tables available on request from authors). As expected, Model 1 shows a significant bivariate relationship between arrest and turnout in the 1996 presidential election: The odds of voting are only about half as high for arrestees as for nonarrestees ($e^{-.681} = .51$). Model 2, however, shows that this effect is reduced to nonsignificance once race, gender, education, income, employment, and marital status are included in the full voting behavior model. When these independent variables are set to their mean values, the predicted probability of voting in Model 2 is about 63 percent for arrestees and 69 percent for nonarrestees. It is likely that at least part

of this remaining turnout gap is attributable to the legal disenfranchisement of arrestees still under correctional supervision. In Minnesota, those convicted of felonies may not vote until they are "off paper" (i.e., they have completed probation or parole supervision in addition to any prison sentence). Unfortunately, we cannot determine from these data whether individual arrestees were legally eligible to vote at the time of the 1996 election. Model 3 disaggregates the arrest data, showing that those who had been arrested for violent offenses were significantly less likely to vote in 1996. Those convicted of violent offenses are most likely to face long sentences, so a portion of this effect may again be due

to legal disenfranchisement. Although the coefficient for violent arrests remains large in magnitude in Model 4, it is again reduced to nonsignificance when the full set of voting predictors is introduced.

The remaining models in Table 3 predict party preferences in the 1996 presidential and 1998 Minnesota gubernatorial elections. Unlike the turnout models, there is some evidence that criminal justice sanctions remain associated with party preferences, even net of our set of voting predictors. In particular, those arrested for drug- or alcohol-related offenses were significantly more likely to favor the Democratic presidential candidate Bill Clinton in 1996 and the Independent Party gubernatorial candidate Jesse Ventura in 1998. Although Youth Development Study arrestees and jail inmates may not be representative of the U.S. felon population, results from this Minnesota cohort of young adults do help to establish the plausibility of our turnout and party preference models and our inferences regarding the political impact of felon disenfranchisement.

IMPACT ON PRESIDENTIAL ELECTIONS

Although the outcome of the extraordinarily close 2000 presidential election could have been altered by a large number of factors, it would almost certainly have been reversed had voting rights been extended to any category of disenfranchised felons. Even though Al Gore won a plurality of the popular vote, defeating the Republican George W. Bush by over 500,000 votes, he lost narrowly in the Electoral College. Had disenfranchised felons been permitted to vote, we estimate that Gore's margin of victory in the popular vote would have surpassed 1 million votes, as shown in Table 4a. Regardless of the popular vote, however, one state—Florida—held the balance of power. If disenfranchised felons in Florida had been permitted to vote, Democrat Gore would certainly have carried the state, and the election.

As Appendix Table A shows, there are more disenfranchised felons in Florida, approximately 827,000, than in any other state. Had they participated in the election at our estimated rate of Florida turnout (27.2 percent) and Democratic preference (68.9 percent), Gore would have carried the state by

more than 80,000 votes. As a test on the sensitivity of these results, we halved the estimated turnout rate and consider only *ex-felons* in Table 4a. Under the reduced turnout scenario, the Democratic Party's margin of victory is still more than 40,000 votes. More interesting, perhaps, is the finding reported in Table 4a that even if only *ex-felons* had been enfranchised in Florida, they would have yielded an additional 60,000 net votes for Gore, more than enough to overwhelm Bush's narrow victory margin (and to reverse the outcome in the Electoral College). And even if we halve the estimated turnout rate, Gore's margin of victory would have exceeded 30,000 votes. We can thus conclude that the outcome of the 2000 presidential race hinged on the narrower question of *ex-felon* disenfranchisement rather than the broader question of voting restrictions on felons currently under supervision.

What about earlier presidential elections? Here we examine a much different counterfactual condition. Because a greater share of the voting-age population is disenfranchised now than ever before, some closely contested Democratic political victories of the recent past might have gone to the Republicans had contemporary rates of disenfranchisement prevailed at the time. In particular, two Democratic presidential victories in the last 40 years (1960 and 1976) were decided by very narrow margins that might have been threatened under current levels of incarceration and disenfranchisement.

John F. Kennedy won the 1960 presidential election by a popular vote margin of 118,550 and a 303:219 margin in the Electoral College. Had contemporary rates of criminal punishment held at the time, however, it is likely that Richard M. Nixon would have won the popular vote. As Appendix Table A shows, about 4.7 million citizens, or 2.28 percent of the voting age population, were disenfranchised in 2000 because of felony convictions. If this percentage had held in 1960, about 2.5 million voters would have been disenfranchised, as shown in Table 4b (2.28 percent multiplied by the voting-age population of 109,672,000). Because the population percentage of convicted felons was actually much lower in 1960 than today, however, we estimate that only about 1.4 million were actually disenfranchised at the

Table 4a. Disenfranchisement Rates and the 2000 Presidential Election: *What if Felons Had Been Allowed to Vote in 2000?*

Unit	Actual Republican Margin	Total Disenfranchised	Estimated Turnout Percent	Estimated Percent Democrat	Net Democratic Votes Lost	Counterfactual Democratic Margin
U.S. total	-539,947	4,695,729	29.7	68.9	527,171	1,067,118
Florida felons and ex-felons	537	827,207	27.2	68.9	85,050	84,513
50-percent lower turnout	—	—	13.6	68.9	42,525	41,988
Florida ex-felons only	—	613,514	27.2	68.9	63,079	62,542
50-percent lower turnout	—	—	13.6	68.9	31,540	31,003

Sources: Congressional Quarterly, Inc. (2000); Current Population Survey (2000); National Election Study (2000).

Table 4b. Applying Contemporary Disenfranchisement Rates to the 1960 Presidential Election: *What if Felons Were Disenfranchised in 1960 at 2000 Rates?*

Unit	Actual Democratic Margin	Actual Disenfranchised	Counterfactual Disenfranchised	Estimated Turnout Percent	Estimated Percent Democrat	Net Democratic Votes Lost	Counterfactual Republican Margin
U.S. total	118,550	1,378,156	2,502,211	40	75	224,811	106,261
50-percent lower turnout	—	—	—	20	75	112,405	-6,145

Sources: Congressional Quarterly, Inc. (1960); for state laws, Behrens, Uggen, and Manza (2002).

time of the 1960 election.¹⁴ Therefore, at current rates of disenfranchisement, over 1 million additional citizens would have been denied the vote in 1960. If 40 percent of these new felons had voted (in an election in which the overall turnout rate reached a post-World War II peak of 62.8 percent), and 75 percent of this group selected the Democratic candidate, figures in line with our findings for other presidential elections, then Kennedy would have lost approximately 225,000 votes—almost twice the popular vote margin in that election. If the felon turnout rate had been only 20 percent, we find that at current disenfranchisement levels Kennedy would have prevailed by only 6,000 votes. In ap-

¹⁴ Many states altered their disenfranchisement regimes between 1960 and 2000 (Behrens et al. 2002; Manza and Uggen forthcoming), and the 1960 figures account for these legal changes within the limitations of the available data. Prison, parole, and jail information are available for 1960, but probation figures are imputed based on state-specific ratios of probation to other correctional populations. Ex-felon figures are based on releases from 1948 to 1960 only, so they may be understated relative to recent years.

plying the counterfactual to the Electoral College, our analysis suggests that Nixon would likely have been victorious in New Mexico (with 4 electoral votes) but would have lost by very narrow margins in other states. Therefore, if current rates of disenfranchisement had held in 1960, it is likely that Nixon may have beaten Kennedy in the popular vote, but unlikely that he would have surpassed his electoral vote total.

It is doubtful that applying contemporary disenfranchisement rates would have overturned the 1976 election, although Jimmy Carter's victory margin would have been considerably narrower. At current rates of disenfranchisement, about 2.5 million additional citizens would have been denied the vote in 1976. Our National Election Study estimates suggest that 34.3 percent of these would have voted and that 80.7 percent of this group would have selected the Democratic candidate. This would have accounted for about 525,000 votes, or about 31 percent of Carter's final 1,682,970-vote victory margin.¹⁵

¹⁵ The National Election Study does not ask

DISCUSSION AND IMPLICATIONS FOR AMERICAN DEMOCRACY

We find that felon disenfranchisement laws, combined with high rates of criminal punishment, may have altered the outcome of as many as seven recent U.S. Senate elections and at least one presidential election. One startling implication of these findings relates to control over the Senate. Assuming that Democrats who might have been elected in the absence of felon disenfranchisement had held their seats as long as the Republicans who narrowly defeated them, we estimate that the Democratic Party would have gained parity in 1984 and held majority control of the U.S. Senate from 1986 to the present. Changing partisan control of the Senate would have had a number of important policy consequences: In particular, it might have enabled the Clinton administration to gain approval for a much higher proportion of its federal judicial nominees, and key Senate committees would have shifted from Republican to Democratic control.

In examining presidential elections, we find that the Republican presidential victory of 2000 would have been reversed had just ex-felons been allowed to vote, and that the Democratic presidential victory of 1960 may have been jeopardized had contemporary rates of disenfranchisement prevailed at that time. Disenfranchised felons and ex-felons currently make up 2.28 percent of the voting-age population, a figure that we project may rise to 3 percent within 10 years (Manza and Uggen forthcoming; estimates available upon request). Because the margin of victory in 3 of the last 10 presidential elections has

respondents how they voted in specific gubernatorial or other state elections, so we cannot model voting behavior in state elections. We can, however, make some informed assumptions to estimate the effect of felon disenfranchisement in gubernatorial elections. If we apply the mean rate of turnout (24 percent) and Democratic preference (73 percent) in Senate elections to these races, it is likely that at least three Republican gubernatorial victories would have been overturned: in Alabama (with James Folsom [D] defeating James Forrest [R] in 1994), New Jersey (James Florio [D] defeating Thomas Kean [R] in 1981), and Texas (John Hill [D] defeating William Clements [R] in 1978).

been 1.1 percent of the voting-age population or less, felon disenfranchisement could be a decisive factor in future presidential races.

One potentially important implication of these results concerns the differing correctional populations affected by ballot restrictions. We estimate that the disenfranchised population is composed of approximately 35 percent ex-felons, 28 percent probationers, 9 percent parolees, but only 27 percent prison and jail inmates (Manza and Uggen forthcoming). Disenfranchisement of prisoners alone is therefore unlikely to alter elections, but the numbers mount when those felons supervised in the community are added and reach a critical mass in states that disenfranchise ex-felons. Thus, the impact of felon disenfranchisement would have been greatly reduced had ex-felons, probationers, and parolees been permitted to vote in all states. Moreover, the philosophical rationale for disenfranchisement, founded on the liberal legal model and Enlightenment conceptions of the social contract, would appear to be much stronger for current prison inmates than for those who have completed their sentences (ex-felons) or those otherwise deemed fit to maintain community ties (probationers and parolees). Just as disenfranchisement is a powerful symbol of felons' diminished civil rights, restoration of voting rights provides a clear marker of reintegration and acceptance as a stakeholder in a community of law-abiding citizens. Although the public opinion evidence is limited, our recent experimental national survey (Manza, Brooks, and Uggen 2002) suggests that significant majorities of survey respondents believe that an offender's right to vote should be restored upon release from prison.

Although these results are striking, do they signal a true democratic contraction in the United States? Figure 3 presents data placing felon disenfranchisement in historical context, showing the percentages of states holding felon disenfranchisement provisions from the late eighteenth century to present. Most states began to restrict the ballot for felons in the mid-nineteenth century, and there is evidence in some states that lawmakers fully appreciated the partisan consequences of their actions (Behrens et al. 2002; Keyssar 2000; Manza and Uggen forthcoming).

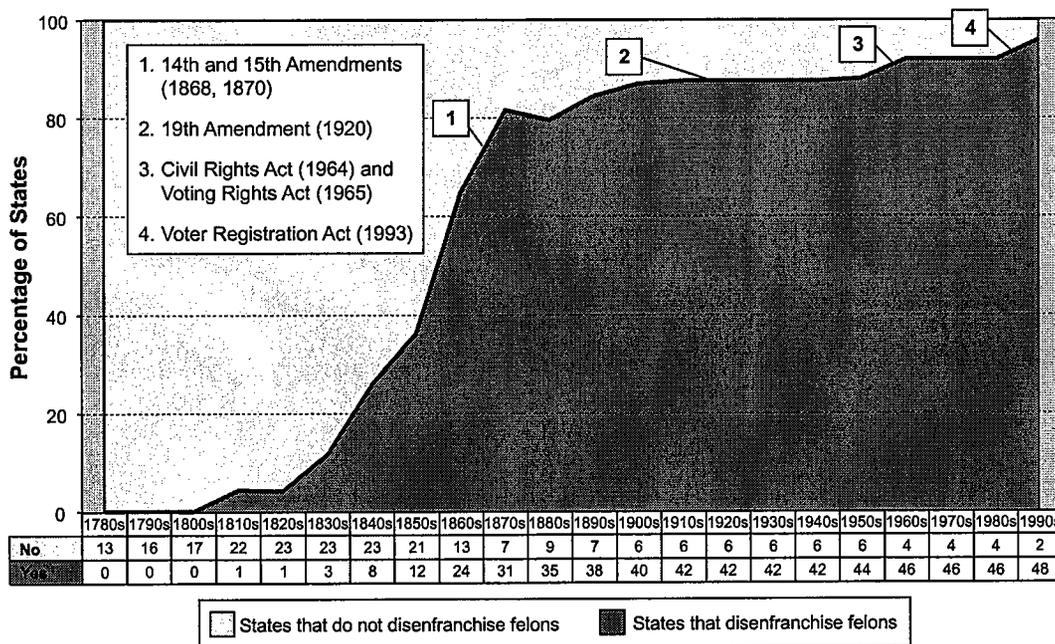


Figure 3. The Percentage of States with Felon Disenfranchisement, 1788 to 2000

Source: Behrens, Uggen, and Manza (2002).

ing; McMillan 1955). Few states rescinded such measures following the enfranchisement of African American males (with passage of the 14th and 15th amendments to the U.S. Constitution) and women (with passage of the 19th amendment). Nor was felon disenfranchisement dismantled during passage of the Civil Rights Act of 1964, Voting Rights Act of 1965, or Voter Registration Act of 1993. Although several states have removed voting restrictions on *ex-felons* since the 1960s (including New Mexico in 2001), most continue today to disenfranchise prisoners, probationers, and parolees. In fact, as Figure 3 shows, a greater percentage of states disenfranchised felons in 2000 than in any prior year.

Today, high rates of criminal punishment, rather than new laws, account for the political impact of felon disenfranchisement. In light of past theory and research on the extension and universalization of suffrage, however, the persistence and expansion of these ballot restrictions are noteworthy. We have shown that about 4.7 million adult U.S. citizens do not enjoy the full complement of political rights. As the number of disenfranchised felons expands, the electorate contracts. Because the contracted electorate now

produces different political outcomes than a fully enfranchised one, mass incarceration and felon disenfranchisement have clearly impeded, and perhaps reversed, the historic extension of voting rights. Nevertheless, we must also note a number of caveats to these findings. First, our counterfactual examples rely upon a *ceteris paribus* assumption—that nothing else about the candidates or elections would change save the voting rights of felons and *ex-felons*. Had these laws changed, other forces might have arisen to negate the political influence of felons and *ex-felons*. Moreover, although the Democrats lose votes to felon disenfranchisement, they may also have gained votes by attempting to be just as punitive as Republicans.¹⁶

¹⁶ By embracing a law-and-order agenda in the 1990s, Democrats have neutralized crime as a partisan political issue (Lin 1998). Research decomposing the unique contribution of crime policy to individual vote choice is needed to determine whether the votes gained by such strategies outweigh the votes lost with the disenfranchisement of potential Democratic voters. We should note, however, that returning the ballot to felons is not necessarily inconsistent with a crime control agenda. One may advocate extending the franchise on public safety and reintegrative

Second, our estimated vote choice and turnout analysis matched nonfelons to felons on the basis of region, gender, race, age, labor force status, marital status and education. Although nonfelon voters resemble felons in many respects, we cannot be certain that the experience of criminal conviction itself may not suppress, (or conversely, mobilize) political participation. Our analysis of new survey data on this question provides some reassurance that our turnout and party preference estimates are reasonable, although the Youth Development Study results do not constitute a conclusive test of the effects of felony convictions on political behavior. Third, our analyses have assumed that felon disenfranchisement laws are well enforced, and that felons and ex-felons do not attempt to vote in disregard of these laws. Surely some disenfranchised felons have cast ballots, although occasional charges of fraudulent voting have not, upon further investigation, produced significant evidence of illegal voting. There is also some evidence that state authorities have improperly purged ex-felons from the rolls, thereby offsetting or perhaps eclipsing the number of votes cast fraudulently (Palast 2000; cf. Stuart 2002).

Despite these important caveats, we find considerable evidence that ballot restrictions for felons and ex-felons have had a demonstrable impact on national elections, and in this sense rising levels of felon disenfranchisement constitute a reversal of the universalization of the right to vote. Further, our focus on national and state-level elections understates the full impact of felon disenfranchisement. Because of the geographic concentration of disenfranchised felons and ex-felons in urban areas, it is likely that such impact is even more pronounced in local or district-level elections, such as House, state legislative, and mayoral races.¹⁷ Moreover, our analysis has only examined past elections. Unless disenfranchisement laws

grounds, arguing that ex-felons who become stakeholders in their communities will have lower rates of recidivism.

¹⁷ Note that in many local races, especially in mostly black urban districts, the partisan impact of felon disenfranchisement might be diminished because Republican candidates are already uncompetitive in these districts.

change, the political impact is likely to intensify in the future. Even if the numbers of those incarcerated begin to level off (USDOJ 2001a), the number of disenfranchised ex-felons will continue to rise for several years in those states that restrict their franchise.

Although we have specified the political consequences of felon disenfranchisement, we have only touched on the origins of these laws and the mass incarceration phenomenon that gives such force to them today. These questions are important for situating felon disenfranchisement within a broader model of social control of dispossessed groups. Proponents of the "new penology" argue that the focus of criminological interest has recently shifted from the rehabilitation of individual offenders to the social control of aggregate groups (Feeley and Simon 1992; Wacquant 2001). The correctional population is subject to a number of exclusions: They are often ineligible for federal grants for education (such as Pell Grants [Page 2000]), they have restricted access to social programs, they face sharp disadvantages in the labor market (Western and Beckett 1999), and they must live with the social stigma associated with a felony conviction. Restricted access to the ballot box is but a piece of a larger pattern of social exclusion for America's vast correctional population.

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Jeff Manza is Associate Professor of Sociology and Political Science, and a Faculty Fellow at the Institute for Policy Research, Northwestern University. His research is in the areas of political sociology, social stratification, and public policy. In addition to his collaborative work with Christopher Uggen on felon disenfranchisement, he is coauthor (with Clem Brooks) of Social Cleavages and Political Change: Voter Alignments and U.S. Party Coalitions (Oxford University Press, 1999), which received a distinguished book prize from the political sociology section of the American Sociological Association.

APPENDIX TABLE A

Estimates of Numbers of Disenfranchised Felons by State: December 31, 2000

State	Prisoners	Parolees	Felony Probation	Jail Inmates	Estimated Ex-Felons	Total	Voting-Age Population	Percent Disenfranchised
Alabama	26,225	5,494	30,887	1,214	148,830	212,650	3,333,000	6.38
Alaska	2,128	507	4,543	212	—	7,390	430,000	1.72
Arizona	26,510	3,474	50,897	1,053	58,936	140,870	3,625,000	3.89
Arkansas	11,915	9,453	29,048	—	—	50,416	1,929,000	2.61
California	163,001	117,647	—	7,714	—	288,362	24,873,000	1.16
Colorado	16,833	5,500	—	967	—	23,300	3,067,000	.76
Connecticut	13,155	1,868	29,641	520	—	45,184	2,499,000	1.81
Delaware	3,937	579	10,808	298	14,384	30,006	582,000	5.16
District of Columbia	7,456	—	—	143	—	7,599	411,000	1.85
Florida	71,233	6,046	131,186	5,228	613,514	827,207	11,774,000	7.03
Georgia	44,232	21,556	217,038	3,451	—	286,277	5,893,000	4.86
Hawaii	3,553	—	—	150	—	3,703	909,000	.41
Idaho	5,526	1,443	8,774	321	—	16,064	921,000	1.74
Illinois	45,281	—	—	1,711	—	46,992	8,983,000	.52
Indiana	20,125	—	—	1,333	—	21,458	4,448,000	.48
Iowa	7,955	2,763	9,326	330	80,257	100,631	2,165,000	4.65
Kansas	8,344	3,829	—	426	—	12,599	1,983,000	.64
Kentucky	14,919	4,909	17,464	1,010	109,132	147,434	2,993,000	4.93
Louisiana	35,047	—	—	2,637	—	37,684	3,255,000	1.16
Maine	—	—	—	—	—	0	968,000	.00
Maryland	23,538	14,143	22,563	1,115	78,206	139,565	3,925,000	3.56
Massachusetts	—	—	—	—	—	0	4,749,000	.00
Michigan	47,718	—	—	1,600	—	49,318	7,358,000	.67
Minnesota	6,238	3,072	31,644	523	—	41,477	3,547,000	1.17
Mississippi	20,241	1,596	15,118	986	82,002	119,943	2,047,000	5.86
Missouri	27,323	12,357	42,607	725	—	83,012	4,105,000	2.02
Montana	3,105	—	—	160	—	3,265	668,000	.49
Nebraska	3,895	473	4,828	231	44,001	53,428	1,234,000	4.33
Nevada	10,012	4,056	8,410	517	43,395	66,390	1,390,000	4.78
New Hampshire	2,257	—	—	159	—	2,416	911,000	.27
New Jersey	29,784	14,899	96,831	1,592	—	143,106	6,245,000	2.29
New Mexico	5,342	1,670	7,279	544	63,565	78,400	1,263,000	6.21
New York	70,198	57,858	—	3,217	—	131,273	13,805,000	.95
North Carolina	31,266	3,352	34,701	1,334	—	70,653	5,797,000	1.22
North Dakota	1,076	—	—	67	—	1,143	477,000	.24
Ohio	45,833	—	—	1,628	—	47,461	8,433,000	.56
Oklahoma	23,181	1,825	26,385	698	—	52,089	2,531,000	2.06
Oregon	10,630	—	—	677	—	11,307	2,530,000	.45
Pennsylvania	36,847	—	—	—	—	36,847	9,155,000	.40
Rhode Island	1,966	353	15,844	132	—	18,295	753,000	2.43
South Carolina	21,778	4,240	25,323	869	—	52,210	2,977,000	1.75
South Dakota	2,616	—	—	111	—	2,727	542,000	.50
Tennessee	22,166	8,094	30,235	1,934	28,720	91,149	4,221,000	2.16
Texas	157,997	111,719	250,642	5,609	—	525,967	14,850,000	3.54
Utah	5,630	3,266	—	—	—	8,896	1,465,000	.61
Vermont	—	—	—	—	—	0	460,000	.00
Virginia	30,168	5,148	29,596	1,847	243,902	310,661	5,263,000	5.90
Washington	14,915	160	109,956	1,078	32,856	158,965	4,368,000	3.64
West Virginia	3,856	1,112	3,635	272	—	8,875	1,416,000	.63
Wisconsin	20,612	9,430	22,715	1,268	—	54,025	3,930,000	1.37
Wyoming	1,680	514	2,760	99	12,797	17,850	358,000	4.99
Total	1,209,243	444,405	1,320,684	57,710	1,654,497	4,686,539	205,814,000	2.28

Sources: USDOJ; see pages 785-86 for details.

APPENDIX TABLE B

Estimated Numbers of Disenfranchised African American Felons by State: December 31, 2000

State	Black Prisoners	Black Parolees	Black Probation	Black Jail Inmates	Estimated Black Ex-Felons	Total	Voting-Age Population	Percent Disenfranchised
Alabama	17,230	2,674	13,248	671	77,932	111,755	800,000	13.97
Alaska	317	53	585	10	—	966	17,000	5.68
Arizona	4,016	543	4,347	143	8,651	17,700	137,000	12.92
Arkansas	6,595	4,715	10,376	—	—	21,686	276,000	7.86
California	80,490	31,457	—	2,697	—	114,644	1,853,000	6.19
Colorado	4,224	1,639	—	199	—	6,063	132,000	4.59
Connecticut	8,302	1,175	8,689	250	—	18,417	221,000	8.33
Delaware	2,524	303	5,069	—	7,162	15,058	108,000	13.94
District of Columbia	7,382	—	—	131	—	7,513	230,000	3.27
Florida	39,427	3,472	43,305	2,774	167,413	256,392	1,600,000	16.02
Georgia	29,583	14,267	115,711	2,124	—	161,685	1,577,000	10.25
Hawaii	201	—	—	6	—	208	27,000	.77
Idaho	105	28	141	6	—	280	7,000	4.00
Illinois	32,780	—	—	1,116	—	33,895	1,249,000	2.71
Indiana	8,664	—	—	634	—	9,297	353,000	2.63
Iowa	2,028	411	1,019	62	7,671	11,192	45,000	24.87
Kansas	3,218	1,359	—	117	—	4,694	112,000	4.19
Kentucky	5,718	1,377	3,916	312	24,632	35,955	207,000	17.37
Louisiana	26,820	—	—	1,870	—	28,690	956,000	3.00
Maine	—	—	—	—	—	—	7,000	.00
Maryland	18,228	10,662	13,105	736	42,519	85,251	1,058,000	8.06
Massachusetts	—	—	—	—	—	—	270,000	.00
Michigan	27,230	—	—	572	—	27,802	977,000	2.85
Minnesota	2,309	1,841	4,587	128	—	8,865	106,000	8.36
Mississippi	15,145	1,130	9,099	698	50,035	76,106	675,000	11.27
Missouri	12,489	4,964	12,719	300	—	30,471	425,000	7.17
Montana	44	—	—	4	—	48	4,000	1.21
Nebraska	1,155	116	758	47	7,164	9,240	49,000	18.86
Nevada	3,118	1,331	1,853	154	11,514	17,970	105,000	17.11
New Hampshire	125	—	—	12	—	138	9,000	1.53
New Jersey	21,301	8,977	47,666	975	—	78,920	856,000	9.22
New Mexico	621	199	515	43	7,750	9,128	37,000	24.67
New York	38,849	43,638	—	1,749	—	84,236	2,309,000	3.65
North Carolina	20,480	2,114	17,448	868	—	40,910	1,173,000	3.49
North Dakota	27	—	—	2	—	29	4,000	.72
Ohio	24,829	—	—	720	—	25,549	895,000	2.85
Oklahoma	8,336	614	6,108	225	—	15,283	185,000	8.26
Oregon	1,506	—	—	74	—	1,580	51,000	3.10
Pennsylvania	23,104	—	—	—	—	23,104	820,000	2.82
Rhode Island	685	100	3,598	35	—	4,419	36,000	12.27
South Carolina	15,262	2,949	13,950	596	—	32,756	816,000	4.01
South Dakota	116	—	—	3	—	119	5,000	2.37
Tennessee	11,277	4,605	12,806	1,125	11,946	41,759	635,000	6.58
Texas	71,915	44,282	46,546	2,130	—	164,873	1,800,000	9.16
Utah	432	244	—	—	—	676	16,000	4.23
Vermont	—	—	—	—	—	—	4,000	.00
Virginia	20,234	3,323	15,085	1,180	121,737	161,559	1,005,000	16.08
Washington	3,376	23	14,647	205	3,824	22,075	154,000	14.33
West Virginia	615	218	316	39	—	1,188	45,000	2.64
Wisconsin	9,940	4,476	5,920	469	—	20,805	193,000	10.78
Wyoming	101	22	85	2	358	567	4,000	14.18
Total	632,474	199,301	433,216	26,215	550,308	1,841,515	24,635,000	7.48

Sources: USDOJ; see pages 785–86 for details.

APPENDIX TABLE C

Logistic Regression Coefficients Predicting Voter Turnout and Democratic Senate and Presidential Votes: 1972 to 2000

Independent Variable	1972	1974	1976	1978	1980	1982	1984	1986	1988	1990	1992	1994	1996	1998	2000
<i>Turnout Analysis (Voted = 1)</i>															
Black	-.061*	-.109***	-.063*	-.033	-.105***	.102***	.161***	.174***	.101***	.058*	-.026	.024	.211***	.263***	.321***
Years of education	.228***	.190***	.245***	.206***	.249***	.211***	.232***	.195***	.283***	.211***	.256***	.238***	.254***	.212***	.277***
Male	-.035*	-.029	-.093***	-.069*	-.126***	-.060***	-.171***	-.073	-.143***	-.089***	-.131***	-.041**	-.153***	-.060***	-.163***
Married	.392***	.517***	.443***	.532***	.528***	.538***	.460***	.541***	.604***	.498***	.418***	.538***	.486***	.535***	.550***
Employed	.291***	.331***	.302***	.266***	.319***	.283***	.261***	.269***	.400***	.260***	.311***	.266***	.229***	.221***	.262***
Age	.031***	.039***	.038***	.041***	.039***	.042***	.034***	.041***	.045***	.039***	.031***	.042***	.036***	.041***	.035***
Constant	-3.753***	-4.653***	-4.384***	-4.763***	-4.464***	-4.754***	-4.149***	-4.776***	-5.615***	-4.904***	-4.265***	-5.368***	-4.750***	-5.181***	-4.945***
<i>Presidential Vote Analysis (Voted Democratic = 1)</i>															
Black	2.553***	—	2.824***	—	3.066***	—	2.375***	—	2.307***	—	2.471***	—	3.241***	—	2.373***
Years of education	-.006	—	-.067***	—	-.064*	—	-.015	—	-.004	—	-.004	—	-.076**	—	.033
Male	-.244	—	-.039	—	-.358*	—	-.151	—	-.162	—	-.270*	—	-.439***	—	-.430**
Married	-.163	—	.049	—	-.136	—	-.070	—	-.021	—	-.439***	—	-.223	—	-.217
Employed	-.026	—	.197	—	.335	—	-.001	—	.154	—	.078	—	.411*	—	.137
Age	-.019***	—	-.010*	—	.001*	—	.000	—	-.003	—	.007	—	.004	—	.000
Income	-.128*	—	-.276***	—	-.123	—	-.303***	—	-.191*	—	-.173***	—	-.160*	—	-.153*
Constant	.723*	—	1.817***	—	.058*	—	-.716	—	.916*	—	.354	—	1.423**	—	-.307
<i>Senate Vote Analysis (Voted Democratic = 1)</i>															
Black	1.719***	2.289**	1.852***	1.392**	1.525***	1.729***	1.930***	1.915***	2.049***	2.052***	1.946***	1.029***	2.072***	1.719***	1.906***
Years of education	-.041	-.026	-.027	-.081**	-.027	-.088*	-.041	-.062	-.068*	-.039	-.048	-.023	-.030	-.042	-.021
Male	-.010	-.184	-.151	.706***	.145	-.028	-.076	-.050	-.130	-.156	-.239	-.513**	-.349	-.061	-.237
Married	.017	.393	.117	-.215	-.157	.079	.262	-.163	-.043	-.106	-.339*	-.081	-.569**	.155	-.128
Employed	.218	.516*	-.090	.236	-.116	.179	.076	-.117	.195	.082	-.057	.110	.076	.291	.047
Age	-.015**	-.014*	-.011*	-.007	.005	-.003	-.001	-.003	-.005	-.002	.001	.008	.003	.008	.001
Income	-.260***	-.319**	-.116	-.253*	-.077	-.123*	-.237*	.022	-.195*	-.134	-.035	-.187*	-.230*	-.038	-.115
Constant	1.673***	1.780**	1.589**	1.763**	.482	1.672*	1.092	1.010	1.894***	1.352	1.054*	.409	1.475*	.117	.876

Sources: Current Population Survey (1972-2000); National Election Study (1972-2000).

* $p < .05$ ** $p < .01$ *** $p < .001$ (two-tailed tests)

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EXHIBIT B

Report on 2004 Washington Gubernatorial Election

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California Institute of Technology

14 April 2005

I was asked by legal counsel in this case to examine the 2004 Gubernatorial election in Washington, which involved the original ballot canvass and two recounts, one by machine and another by hand. In particular, I was asked to evaluate the impact of invalid ballots on the certified election results as well as more general issues with the counting of ballots.

A summary of my basic findings is as follows:

- The closeness of the election — there are only 129 votes separating Christine Gregoire and Dino Rossi — is almost unprecedented in the history of gubernatorial elections in Washington or, for that matter, in any other state. It is highly unlikely that a future statewide election in Washington would ever be as close again.
- The margin of victory in all of the vote counts is likely below the level of accuracy of the tabulation methods used. That is, if yet another statewide recount were conducted, the results would almost surely differ and that the election outcome could easily flip again.
- When the invalid votes, chiefly from felons who were not eligible to vote under Washington law, are removed from the certified election totals using standard and accepted statistical techniques, Dino Rossi would most likely be the winner of the election.

In the next section of the report I review my qualifications. I then look at the closeness of this election in historical context. The following section examines the accuracy of hand recounts, lastly I turn to estimating the impact of invalid votes on the election outcome.

1 Qualifications

I am currently Professor of Political Science at the California Institute of Technology. I was also formerly on the faculty at the University of Chicago and a visiting professor at the University of Konstanz (Germany). A complete copy of my curriculum vitae is in Appendix A.

I received my Bachelor of Science degree from the Massachusetts Institute of Technology and my Masters of Arts and Doctor of Philosophy degrees, both in political science, from the University of California, San Diego. I have also done post-doctoral work at Harvard University and the Harvard-MIT Data Center.

I have done extensive research on American elections and on statistical methods for political science data. I am a member of the Caltech/MIT Voting Technology Project. I have written numerous articles published in the leading journals as set forth in my curriculum vitae. I currently sit on the editorial board of three leading journals — *Political Analysis*, *Electoral Studies* and *Political Research Quarterly* — and have served as a referee of manuscripts for most of the major journals in my fields of research.

As part of my work with the Caltech/MIT Voting Project, I have a number of current research projects related to the evaluation of elections. For example, I have examined data with my colleague R. Michael Alvarez on manual recounts of elections from Los Angeles County.¹ I am also working a project jointly with the Election Science Institute (formerly Votewatch) examining audit data from the 2004 U.S. Presidential election in Ohio.

Over the past decade, I have testified or consulted in numerous elections cases involving the Federal Voting Rights Act, the evaluation of voting systems, or the statistical evaluation of electoral data. I have testified or consulted in court cases in the states of Arizona, California, Georgia, Illinois, Maryland, Michigan, Missouri, New Mexico, Oklahoma and Texas.

2 Closeness of the election

The vote totals for the two major candidates, Christine Gregoire, the Democratic candidate, and Dino Rossi, the Republican candidate, are presented in Table 1.² We see that in the first two counts, Rossi slightly edged out Gregoire. However, the final manual recount gave

¹California law mandates that all jurisdictions randomly select one percent of their precincts to be manually recounted before certifying the vote tallies in any election. I have also personally witnessed two of these recounts.

²The data for the table come from the official results reported in the Washington Secretary of State's website, <http://www.secstate.wa.gov>.

Table 1: Washington 2004 Gubernatorial Election Results

Candidate	Original Canvass	Machine Recount	Manual Recount
Gregoire	1,371,153	1,372,442	1,373,361
Rossi	1,371,414	1,372,484	1,373,232
Absolute Margin	261	42	129
Percent Margin	0.009%	0.001%	0.005%

Gregoire a slight lead. As is often the case, the number of ballots counted increased with each successive recount.

The closeness of the 2004 election is almost unprecedented in Washington history. The maximal margin over all three counts is still tiny; only 261 votes in the original canvass, or as a percentage of total vote casts, this corresponds to a margin of 0.009%. The margin in the certified tally is only 129. No gubernatorial election in Washington has ever been this close. The next closest election for governor would be the 1912 election, which was an odd four way race. The margin of victory in that election was 622 votes corresponding to 0.20% of the votes cast. In terms of percent margin, the 2004 election was more than four hundred times closer than the final count in this election. Perhaps the closest recent statewide election in Washington was Senator Slade Gorton's re-election defeat in 2000. He lost the race by 2,229 votes corresponding to a percent margin of 0.09%, which is 18 times larger than the current governor's race. If we look to other states, the only statewide election that I am aware of that is almost as close as this one would be the 1962 race for governor of Minnesota, which was decided by only 91 votes corresponding to 0.007% of total votes cast.

We can calculate how likely this close of an election is to occur by examining statewide elections from other states. Data on all statewide (partisan) elections held in the U.S. from 1980 to 2004 were made available to me by Clark Bensen of Polidata. Under the assumption that this set of data is representative of statewide partisan elections in Washington, they can be used to estimate the probability that another election would be as close as the 2004 Washington governor's race. If we include all statewide races, then the estimated probability of seeing another election this close is less than 1 in 10,000,000.³ If we restrict ourselves only

³This probability was calculated by assuming that

$$\text{logit}(m) \sim N(\mu, \sigma^2),$$

where m is the percent margin of victory. The parameters, μ and σ^2 , are estimated via maximum likelihood and the probability of an election closer than 0.005% is backed out.

to gubernatorial elections, than the probability decreases by sevenfold.⁴

3 Accuracy of Counting Ballots

Given the closeness of this election, the exact outcome depends crucially on the ability of the voting system and procedures to accurately record and count each voter's intention. However, as we learned from the 2000 presidential election in Florida, this is not a straight-forward task and is fraught with error.

In this case, the Secretary of State certified the election outcome of the third recount that was done manually – i.e., counting the ballots by hand.⁵ The reason for using the manual recount is that humans are often better, or perhaps more forgiving, in reading a voter's intention than a machine. For example, suppose a voter fails to fully fill in the circle on an optical scan ballot, the electronic tabulation equipment might fail to record the vote. On the other hand, a human looking at the ballot could correctly count the ballot as being for a particular candidate.

While a human being may be more astute in determining voter intent, we are not perfect. In fact, the reason for the adoption of electronic tabulation was to improve both the efficiency and accuracy of vote counting. Roy Saltman of National Bureau of Standards, an early leader in voting system research, noted in his important 1988 study that “[h]and counting of large numbers of paper ballots is generally inaccurate, because of human inattention and fatigue, compared with counting of machine-readable ballots.” (Saltman 1988: section 3.2.1)

In fact, we have some evidence on the accuracy of hand counting. In a recent Caltech/MIT working paper, Stephen Ansolabehere and Andrew Reeves examined historical recount data from New Hampshire for the period 1946 to 2002 (Ansolabehere and Reeves 2004) In the early part of their sample, from 1946 to 1962, New Hampshire exclusively used paper ballots. They found that the average discrepancy of 0.83% between two successive ballot counts, with a 95% confidence interval of 0.61% to 1.05% for the estimate.⁶ In fact, this estimate of error in hand recounting is likely an underestimate of the error in this recount because the New Hampshire ballots were actually designed for a human to read, unlike modern scanned ballots. The approximate 1% error dwarfs the margin of victory in the 2004 Washington

⁴This happens because there are a few close non-gubernatorial elections that make the current election look less unusual.

⁵Excluding, of course, the counties that used Direct Record Electronic (DRE) voting machines, where a manual recount is not physically possible.

⁶The 95% confidence interval represents our uncertainty since we are estimating the effect from only a sample of data. The 95% confidence interval is constructed so that if we were to collect a new sample of data and re-estimate the quantity of interest, 95 times out of 100 this new estimate would be in this interval.

Table 2: Invalid Votes in 2004 Washington Gubernatorial Election

Type	King County	Other County	Total
Felons	660	219	879
Deceased	39	14	53
Dual Multi-State	4	1	5
Dual In-State	20	2	22
Non-Citizens	2	0	2
Invalid Provisional	92	0	92
Total	817	236	1053

gubernatorial election. Thus, if we were to conduct a new recount, we would expect the results to differ by approximately 1% on average, which is more than sufficient to flip the outcome of the vote once again.

4 Impact of Invalid Votes on Election Outcomes

The central controversy in the gubernatorial election centers on how the invalid votes cast in the election may have impacted the election outcome. In order to examine this question, I was provided with data from Clark Bensen of Polidata. This dataset included the current statewide count of invalid votes as well as precinct level voting data from all of the recounts for the state. This data, while perhaps containing some minor problems, is as clean as one typically sees from precinct level data in litigation. I do not believe that these possible minor inconsistencies would materially impact my analysis and central findings.

The current number and type of invalid votes is presented in Table 2. These 1,053 invalid votes should not have been included in the tabulation process but were. Clearly, the number of invalid votes is substantially larger than the difference of vote between Gregoire and Rossi. This further calls into question the outcome of the election.

We can see from the table that by far the largest number of invalid votes, 879, comes from convicted felons, who are not permitted to vote in Washington. They make up approximately 83% of the total number of invalid votes cast. Further, we can see from the table that most of the problematic votes come from King County, the largest county in the state. In addition to the felons, there were 92 individuals who had invalid provisional ballots in King County, either because they were not on the voter registration list or were credited with already casting an absentee ballot, yet were incorrectly counted in the final recount. The few other

invalid votes come from citizens who voted even though they had died before the election, cast two ballots (including possibly in another state), or were not U.S. citizens.

In order to determine the impact on the election outcome, we need to estimate how these invalid ballots were allocated to candidates. We can then appropriately subtract them to see how the election results would change.

4.1 Ecological inference

Since we use a secret ballot in the U.S., we can not directly observe the vote choices on the problematic ballots. However, we do observe aggregate voting returns at both the precinct and county level. We are also able to determine the number of invalid votes from a given geographic area. Given these two pieces of information, it is possible to estimate the vote choice on the invalid votes. That is, we will be inferring voting behavior from aggregate information, which is known as ecological inference in the academic literature. There are standard methods for conducting such an analysis that are accepted in the academic literature (see, for example, Gay 2001 or Burden and Kimball 1998 for recent applications of ecological inference) and by the courts (see, for example, *Thornburg v. Gingles*, 478 U.S. 30 (1986)). In fact, ecological inference is the centerpiece of voting rights cases for at least the last 20 years in which the voting behavior of racial groups needs to be estimated. In this case, instead of estimating the voting behavior of African-Americans and Whites, we need to examine the voting behavior of valid (i.e., properly registered voters) and invalid voters. The statistical problem, however, is identical.

The key intuition to ecological inference comes from a simple accounting identity, which is true by definition, that relates the vote share of the Democratic candidate⁷ to the voting behavior of valid and invalid voters:

$$V_i = \lambda_i^I X_i + \lambda_i^V (1 - X_i), \tag{1}$$

where V_i is the Democratic share of the vote in precinct i , X_i is the fraction of invalid voters in the precinct and therefore $(1 - X_i)$ is the fraction of valid voters, λ_i^I is the fraction of invalid voters voting for the Democrat and similarly λ_i^V is the fraction of valid voters who vote for the Democrat. In other words, the equation states the fact that the total vote share for the Democratic candidate equals the proportion of invalid voters who support the Democratic candidate multiplied by the proportion of the electorate who are invalid plus the proportion

⁷We could easily model the Republican share of the vote since it is just one minus the Democratic vote share. The choice is irrelevant for any results or findings.

of the valid voters who support the Democratic candidate multiplied by the proportion of the electorate who are valid voters.

The standard technique for ecological inference, originally developed by Goodman (1959), builds this identity up into a regression model that may be estimated from precinct level data. Unfortunately, this technique does not work well when one of the groups is very small in almost every geographic unit, as is the case with the invalid voters in this case. However, not all is lost.

Since we can not distinguish an invalid voter from valid voter from a given geographic unit, then a randomly selected voter of either type needs to cast his or her vote for the Democratic candidate with an identical probability. Formally in statistics this is known as the principle of insufficient reason: when there is no way to distinguish two events or types, they need to have the same probability.

Recall also that it is still the case that the accounting identity discussed above must hold. The only probability that maintains these two conditions is the one that is equal to the Democratic vote share in the precinct. For example, if in some precinct Gregoire won 57% of the vote, then the probability that a voter from this precinct, valid or invalid, voted for her would be 0.57. Thus, we can calculate the expected number of invalid votes for Gregoire by multiplying this estimated probability by the number of invalid votes in the precinct.⁸

4.2 Estimated Impact

As a first look at the estimated impact of the invalid votes on the election outcome, let us only consider the non-felon invalid ballots. Unfortunately, I can currently only allocate to counties the non-felon invalid voters in King County, where there are 157 such invalid ballots. The remaining 17 invalid ballots come from other counties and I do not have enough information to pin down exactly which one at this time. In King County, where the bulk of non-felon invalid ballots come from, Gregoire won 57.7% of the vote.⁹ We would, therefore, expect that of the remaining 157 invalid ballots from King County, that approximately 90.59 of them would have voted for Gregoire and 66.41 for Rossi.¹⁰ Since there are over a million voters in King county, our confidence interval around this estimate is very narrow. The most that Gregoire would likely to have received of this block of invalid ballots is 90.74 and the

⁸Standard errors may be calculated using the standard formula for the binomial distribution.

⁹Through out the analysis I will be using two party share. This is essentially assuming none of the invalid ballots were cast for Ruth Bennett, the Libertarian candidate who garnered only 2.25% of the statewide vote. It is standard in most voting analysis to ignore minor candidates who win less than 5% of the vote. This assumption is not material to my analysis or findings.

¹⁰The estimates are non-integer values because they are the expected number of votes, the actual realization would be a round number, such as 91.

least being 90.43.¹¹ Thus, we would expect that the net effect of removing the non-felon valid ballot would cut Gregoire's lead in the final recount to 104.82 votes before we consider the much more numerous invalid ballots cast by felons for whom we have more detailed geographic information.¹²

Turning to the felon invalid ballots, Figure 1 plots the number of felons in a precinct by Democratic vote share. The plot shows a positive correlation between Democratic vote share and the number of invalid felon votes. This can also be seen by considering the mean Democratic vote share in those precincts with and without any invalid felon ballots. In the precincts with at least one felon ballot, Gregoire averaged 60.2% of the vote versus only 49.5% in those without any. This strongly suggests Gregoire gained by having these invalid votes counted in the final tally.

Following the estimation strategy outlined above, the estimate of the number of the felons that voted for Gregoire is 542.03, whereas it is only 336.97 for Rossi. This is more than enough of a difference to reverse Gregoire's lead of 104.82 votes. Further, the 95% confidence interval of this estimate imply that the lowest number of felon votes we would expect to see for Gregoire would 508.03, which is still sufficient to reverse the election outcome.

This estimate implies that Gregoire took about 66.3% of the felon vote. This is likely a conservative (i.e., under) estimate of the true proportion given what we know about the demographic characteristics of typical felons. In a Uggen and Manza (2002) study of felon voting behavior in U.S. presidential and Senatorial elections, they found that felons voted for Democratic candidates between 69% to 85% of the time depending on which election they examined. Their study included census and detailed survey data, that would make their estimates more precise and hence the differences with the current estimates. I do note, however, that their estimates are uniformly higher than the mine, thus if we were to use even there low estimate, this would increase Rossi's estimated lead after correcting for the invalid ballots.

¹¹For Rossi, the estimated number of invalid ballots cast for him are 157 minus the estimated vote for Gregoire.

¹²The net effect on the lead is calculated by subtracting the number of invalid ballots cast for Gregoire (90.59) from the current lead (129) and adding the invalid votes credited to Rossi (66.41).

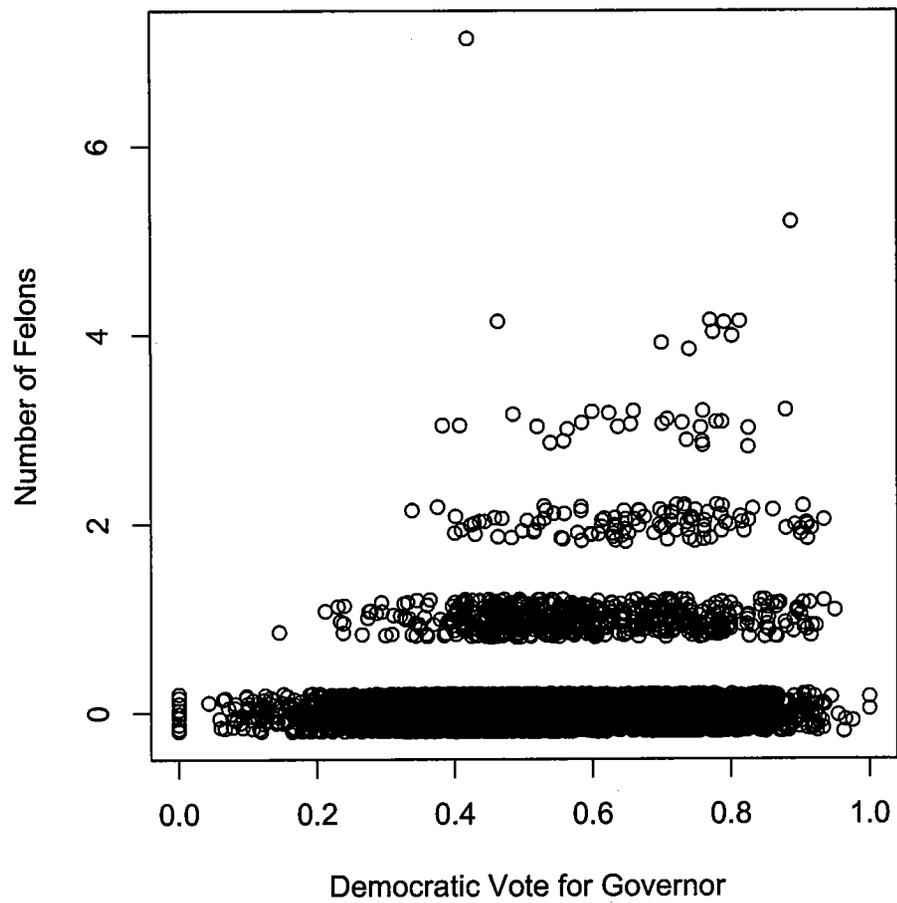


Figure 1: Felon Voters as a Function of Democratic Vote Share

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Aggregation and Dynamics of Survey Responses: The Case of Presidential Approval (with R.M. Alvarez). Caltech Social Science Working Paper No. 1103.

How Much Does a Vote Count? Voting Power, Coalitions, and the Electoral College (with A. Gelman). Caltech Social Science Working Paper No. 1121.

Legislative Analogs of Gerrymandering: Partisan Bias in Congress, 1877-2000 (with G. Cox). Caltech Social Science Working Paper No. 1158.

A New Approach to Measuring the Racial Impact of Redistricting? (with A. Gelman and G. King)

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Ambiguous Candidates and Disillusioned Voters: An Alternative Model of Voting Behavior with Incomplete Information (with P. Ghirardato).

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Indecision Theory: Quality of Information and Voting Behavior (with P. Ghirardato). Caltech Social Science Working Paper No. 1106R.

Aggregation and Dynamics of Survey Responses: The Case of Presidential Approval (with R.M. Alvarez). Caltech Social Science Working Paper No. 1103.

How Much Does a Vote Count? Voting Power, Coalitions, and the Electoral College (with A. Gelman). Caltech Social Science Working Paper No. 1121.

Legislative Analogs of Gerrymandering: Partisan Bias in Congress, 1877-2000 (with G. Cox). Caltech Social Science Working Paper No. 1158.

A New Approach to Measuring the Racial Impact of Redistricting? (with A. Gelman and G. King)

Correcting for Survey Misreports using Auxiliary Information. Presented at the 1998 Annual Meeting of the American Political Science Association and the 1999 Midwest Political Science Association Meetings.

- Ambiguous Candidates and Disillusioned Voters: An Alternative Model of Voting Behavior with Incomplete Information (with P. Ghirardato).
- Bill Scheduling and Legislative Control (with J. Copic).
- Moderation in the Pursuit of Moderation is No Vice: The Clear but Limited Advantages of Being a Moderate for Congressional Elections (with A. Gelman)
- The Impact of Majority-Minority Districts in Congressional Elections (with D. Grigg).
- Machines Versus Humans: The Counting and Recounting of Pre-scored Punchcard Ballots (with R.M. Alvarez and S. Hill).

Awards and Fellowships

- Center for the Advanced Study in the Behavioral Sciences Fellowship. Tentatively scheduled for 2005–2006.
- John Randolph Haynes and Dora Haynes Foundation Faculty Fellow, 2005–2006 (\$10,000).
- National Science Foundation Grant (SES-0213549), 2002-2004.. Co-Principal investigator. Project title: “ Modeling Issues with Time-Series–Cross-Section Data” (\$112,000).
- John M. Olin Foundation Faculty Fellow, 1999–2000 (\$110,000).
- DAAD (German Academic Exchange Service) *Learn German in Germany* fellowship, Summer, 1998.
- National Science Foundation Grant (SBR-9729899), 1998–1999. Co-Principal investigator. Project title: “ Strategic Redistricting and Its Political Consequences” (\$48,000).
- Pi Sigma Alpha award for Best Paper Presented at the 1998 Midwest Political Science Association Meetings.
- CQ Press Award for Best Paper in Legislative Politics Presented at the 1996 Annual Meeting of the American Political Science Association.
- IBM University Equipment Grants Program, 1996–1997. Co-principal investigator. Project title: ‘Individuals and Aggregates: New Computational Techniques for Testing Models of Politics’ (\$134,00).
- John Randolph Haynes and Dora Haynes Foundation Faculty Fellow, 1996–1997 (\$8,000).
- National Science Foundation Graduate Research Fellow, 1991–1994.
- Brooke/Cole Award for Best Graduate Student Paper Presented at the 1993 Midwest Political Science Association Meetings.

University of California Regents Fellow, 1990–1991.

Professional Activities

Member, Expert Panel on Measles Mortality Estimates, World Health Organization, 2004.

Treasurer, Political Methodology Section of the American Political Science Association.
August, 2003 – Present.

Section Organizer and Member of the Program Committee for 2004 Annual Meeting of
the American Political Science Association.

Member, Editorial Board of *Electoral Studies*
January, 2002 – Present.

Director of Graduate Studies, Division of the Humanities and Social Sciences, California
Institute of Technology
July 2001 – Present.

Member, Editorial Board of *Political Analysis*
July, 2001 – Present.

Member, Editorial Board of *Political Research Quarterly*
June, 2000 – Present.

Member, Steering Committee of the USC-Caltech Center for the Study of Law & Politics.
July, 2000 – Present.

Member of 2000 Miller Award Committee. Methodology section of the American Political
Science Association.

Member of Program Committee for Fourteenth Summer Political Methodology
Conference.

Instructor, ICPSR Summer Program in Quantitative Methods, University of Michigan
Summer, 1994 and 1995.

Manuscript Reviewing for *American Journal of Political Science*; *American Political
Science Review*; *American Politics Quarterly*; *Journal of the American Statistical
Association*, *British Journal of Political Science*; *Electoral Studies*; *International
Studies Quarterly*; *Journal of Econometrics*, *Journal of Law, Economics, and
Organization*; *Journal of Political Economy*; *Legislative Studies Quarterly*; *Political
Analysis*; and *Political Research Quarterly*.

Book Manuscript Reviewing for University of Chicago Press, Cambridge University Press,
and Oxford University Press.

Jonathan N. Katz

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Proposal Reviewing for the National Science Foundation.

Member of American Political Science Association, American Statistical Association,
Midwest Political Science Association, Western Political Science Association,
Southern Political Science Association, The Econometric Society.

March 11, 2005

EXHIBIT C

EXHIBIT C
To Petitioners' Witness List

Bill Broughton
David Cummins
Thomas E. Canterbury
Thomas E. Dent
Chris Hanzeli
Thomas G. Huff
Timothy Kavis
Jill Lagergren
Edward Monaghan
Dana Quam
Mike Sheridan
Travis Sines
Edel Sokol
James H. Stevens
Fred A. Simpson
Debra Swecker
Josephine Funes Wentzel

EXHIBIT D

LAWFUL VOTES NOT COUNTED DUE TO REFUSAL TO CORRECT SIGNATURE MATCHING ERRORS

If the Court allows claims regarding ballots wrongly rejected for signature match problems, Petitioners identify the following lawful votes that were not counted due to error, neglect, and/or misconduct of election officials under RCW 29A.68.020(1) and/or 29A.68.011 in refusing to correct errors in signature matching. Petitioners believe these voters cast ballots for Rossi, and the ballots themselves would provide evidence of for whom they voted.

	Voter's Last name	Voter's First name	Voter's Middle name	Residence address	Voter ID/ registration number	Date of birth (Redacted)	County	Precinct
1	Anderson	Ian	C	1011 NE 71st, Seattle, WA 98115	990511985		King	2235
2	Ando	Sarah		24117 SE 30th ST, Sammamish, WA 98075	30328213		King	3214
3	Andress	Christophe	R	150 129th Ave NE, Bellevue, WA 98005	880547216		King	220
4	Azevedo	Pamela	C	31600 126th Ave SE #68, Auburn, WA 98092	950516127		King	3369
5	Backstrom	Jane	M	4320 272nd Ave NE, Redmond, WA 98053	990587676		King	2600
6	Baker	Scott	A	3059 W Lake Sammamish Pkwy NE, Redmond, WA	20380365		King	2634
7	Biggs	Lydia	J	14231 112th PL NE, Kirkland, WA 98034	135195		Pierce	2025
8	Bowden	Randy	L	13828 125th Ave NE, Kirkland, WA 98034	880575082		King	2679
9	Bowzer	Joan	E	16222 NE 145th ST, Woodinville, WA 98072	920683525		King	2456
10	Boyle	Leslie	R	3414 288th Ave NE, Redmond, WA 98053	20348526		King	2652
11	Brock	Gayle	Snyder	22828 NE 61st, Redmond, WA 98053-8141	940833582		King	2601
12	Bryce	John	M	19 Enatai Dr, Bellevue, WA 98004	990610191		King	408
13	Bueravent	Ricardo	J	2606 231st PL SE, Sammamish, WA 98075	921365870		King	1130
14	Burnham	Thomas	A	11701 NE 165th PL, Bothell, WA 98011	840467082		King	3321
15	Butalep	Fatimah		28614 25th PL S, Federal Way, WA 98003	20114142		King	3238
16	Buttke	Mike	D	1045 E Maple ST, Kent, WA 98030	841234537		King	596
17	Cacanindir	Teresa		4854 152nd PL SE, Bellevue, WA 98006	990677314		King	2945
18	Cacanindir	Vincent	A	4854 152nd PL SE, Bellevue, WA 98006	990677310		King	2945
19	Calton	Kyle	A	2022 NE 35th PL, Renton, WA 98056	921719779		King	995
20	Campbell	Jeff	R	2727 181st Ave NE, Redmond, WA 98052	801405193		King	940
21	Campbell	Lisa	D.M.	1011 SE 11th PL, Northbend, WA 98045	980210561		King	3407
22	Carr	Amy	T	18236 SE 136th ST, Renton, WA 98059	10430381		King	1141
23	Chapman	Brenda	B	30608 56th Ave S, Auburn, WA 98001	760805548		King	3441
24	Chea	POV		2512 S 317th ST Federal Way, WA 98003	990700537		King	3055
25	Cheung	Frank		PO BOX 14051, Seattle, WA 98114	910183800		King	3312
26	Chillemi	Joseph	V	12731 NE 94th CT, Kirkland, WA 98083	940217431		King	3397
27	Chisholm	Andrew (Drew)		21433 SE 19th ST, Sammamish, WA 98075	950866446		King	2491
28	Connell	Tara	N	12609 SE 80th Way, Newcastle, WA 98056	990699582		King	878
29	Connolly	Kevin	P	4289 148th Ave NE Apt.J-201, Bellevue, WA 98007	20273364		King	2958

LAWFUL VOTES NOT COUNTED DUE TO REFUSAL TO CORRECT SIGNATURE MATCHING ERRORS

	Voter's Last name	Voter's First name	Voter's Middle name	Residence address	Voter ID/ registration number	Date of birth (Redacted)	County	Precinct
30	Cook	Amiel	G	2037 Larchmount Dr NE, Issaquah, WA 98029	30311035		King	3464
31	Cook	Marci	L	14001 205th Ave NE, Woodinville, WA 98077	880292676		King	2926
32	Copley	Heather	F	6305 160th PL SE, Bellevue, WA 98006	960980841		King	3370
33	Correa	Jose	A	5631 Lakeland Hills Way, Auburn, WA 98092	545279		King	3335
34	Davis	Melissa	M	24629 98th Ave S, Kent, WA 98030	930708950		King	2618
35	Deirnwirth	Gary	R	2934 170th SE, Bellevue, WA 98008	860243091		King	1023
36	Dingmon	Gale	A	17515 SE 373rd ST, Auburn, WA 98092	586064		King	3478
37	Donelson	Janet	A	4610 NE 89th ST, Seattle, WA 98115	800323932		King	2378
38	Durr	Leah	R	8102 126th PL SE, Newcastle, WA 98056	10509114		King	878
39	Durst	Loretta		14608 Bear Creek LN NE, Woodinville, WA 98072	990652501		King	3327
40	Dyckman	Olga	P	470 Lynn Sheet, Seattle, WA 98109	970680071		King	1739
41	Espinoza	Calvin	J	2424 S 315th LN #G103, Federal Way, WA 98003	990681065		King	3055
42	Estey	Norma	Louise	32511 3rd PL S, Federal Way, WA 98003	712666978		King	3001
43	Estrada	Alexander	S	407 V ST SE, Auburn, WA 98002	921088515		King	48
44	Fleming	Aaron	D	32121 Union Drive, Black Diamond, WA 98010	950308265		King	3269
45	Flores	Daniel	R	11740 Greenwood Ave N Apt 310, Seattle, WA 98111	20253134		King	2523
46	Flynn	Sylvia	T	15415 SE 240th St, Kent, WA 98042	920940862		King	493
47	Frederick	Carrie	M	14504 SE 85th St, Newcastle, WA 98059	30050690		King	840
48	Frost	Susan	C	1924 so 254th Pl, Des Moines, WA 98198	800808413		King	2416
49	Gallemore	David	D	23732 NE 22nd St, Sammamish, WA 98074	880084844		King	2965
50	Gardiner	Jason	D	4710 240th ave SE, Issaquah, WA 98029	921762585		King	3326
51	Gover	Ronald	R	18815 201st Ave NE, Woodinville, WA 98077	990699940		King	2493
52	Grigoriu	Viorica		22578 NE 96th St, Redmond, WA 98053	485985		King	179
53	Grinnel	Grant	W	4725 119th Ave SE, Bellevue, WA 98006	921250321		King	306
54	Guyette	Lawrence	P	15820 208th ave ne, Woodinville, WA 98077	930695823		King	1022
55	Hackiewicz	Tatia	L	44229 SE Mt. Si Rd, North Bend, WA 98045	920974473		King	2383
56	Hansen	Kevin	L	15228 SE Lake Holm Rd, Auburn, WA 98092	980350533		King	2615
57	Hanson	Robert	A	14253 SE 83rd St, Newcastle, WA 98059	750254578		King	840
58	Hard	Y. Chinita	L	240 Dorffel Dr. E, Seattle, WA 98112	990652413		King	1911
59	Harris	Gregory	S	5010 243rd Ave NE, Redmond, WA 98053	990673026		King	2600
60	Harris III	Robert	J	14228 111th Ave NE, Kirkland, WA 98034	760586854		King	2421
61	Hayes	Ryan	C	12207 NE 165th Pl, Bothell, WA 98011	10463432		King	2495
62	Henderson	John	L	13533 NE 190th Pl, Woodinville, WA 98072	990181683		King	1225

LAWFUL VOTES NOT COUNTED DUE TO REFUSAL TO CORRECT SIGNATURE MATCHING ERRORS

Voter's Last name	Voter's First name	Voter's Middle name	Residence address	Voter ID/ registration number	Date of birth (Redacted)	County	Precinct
63 Hill	Christopher	S	23949 NE 69th Pl, Redmond, WA 98053	970303588		King	3480
64 Hoek	Hank	DJ	9201 NE 132nd Pl, Kirkland, WA 98034	810107839		King	2457
65 Honsberger	Mary	R	12446 235th Pl NE, Redmond, WA 98053	710251754		King	2653
66 Horand	Mitchel	A	2127 N 176th, Shoreline, WA 98133	800611181		King	2973
67 Horst	Jeff		21 211th Pl NE, Sammamish, WA 98074	881085496		King	3293
68 Inman	Robert	L	14314 NE 7th Pl #2, Bellevue, WA 98007	990606227		King	127
69 Jensen	Kirsten	M	5617 Lakeland Hills Way SE, Auburn, WA 98092	20046643		King	3335
70 Johnson	Daniel	R	14142 SE 238th Lane, Kent, WA 98042	725807040		King	3344
71 Johnson	Jordan	J	2012 145th Ave SE, Bellevue, WA 98007	950159502		King	131
72 Jorgensen	Robert	M	8208 So 121st, Seattle, WA 98178	800171385		King	1069
73 Josie	William	R	42905 236 SE, Enumclaw, WA 98022	990470839		King	684
74 Justice	Robert	A	19601 4th Ave SW, Seattle, WA 98166	712847077		King	856
75 Kaplan	Adam	M	4006 78th Way SE, Mercer Island, 98040	76392		King	769
76 Kern	Cynthia	R	12609 Iss-Hobart Rd, Issaquah, WA 98027	940658519		King	1113
77 Kisinger	Stephanie	G	15813 SE 184th St, Renton, WA 98058	20351551		King	3459
78 Klein	Margaret	L	25048 SE 40th Dr, Issaquah, WA 98029	990476501		King	3204
79 Ko	Caroline		4165 145th Ave NE, Bellevue, WA 98007	985180		King	227
80 Kronblat	Mark		1424 148th SE #L4, Bellevue, WA 98007	10127301		King	136
81 Lavrentiev	Liliya		16609 126th AVE NE, Woodinville, WA 98072	990631732		King	3270
82 Lee	Tye	S	2301 Roosevelt AVE, Enumclaw, WA 98022	930354481		King	413
83 Lehmann	Marilyn	L	1628 105th Ave SE, Bellevue, WA 98004	820099371		King	1246
84 Liao	Hsiu-huei		16015 Inglewood Rd. NE, Kenmore, WA 98028	960534247		King	340
85 Linn	Alden	M	1913 162nd Ave NE, Bellevue, WA 98008	30269691		King	2776
86 Martirosian	Melinda	S	26542 161st Ave SE, Covington, WA 98042	10490341		King	3279
87 McCall	Sandra	M	840 NE 152nd St., Shoreline, WA 98155	770215455		King	423
88 McJunkin	Mark	E	3103 199th Ave SE, Sammamish, WA 98075	840447677		King	2469
89 McLaughlin	Corazon	E	12062 Pinehurst Way NE, Seattle, WA 98125	551571		King	2337
90 Mjelde	Roxanne	M	18401 126th PL SE, Renton, WA 98058	990659654		King	1198
91 Mohr	Linda	R	9202 9th Ave NW, Seattle, WA 98117	980614212		King	2520
92 Munson	Jeff	M	1890 NE 40th St. AP, Renton, WA 98056	721603		King	995
93 Norwest	Adam	G	15026 SE 171st St, Renton, WA 98058	990601135		King	2441
94 O'Hara	Carol	L	3451 24th Ave W #425, Seattle, WA 98199	20010009		King	1816
95 Olson	Eric	A	2406 159th Ave SE, Bellevue, WA 98008	940847524		King	986

LAWFUL VOTES NOT COUNTED DUE TO REFUSAL TO CORRECT SIGNATURE MATCHING ERRORS

	Voter's Last name	Voter's First name	Voter's Middle name	Residence address	Voter ID/ registration number	Date of birth (Redacted)	County	Precinct
96	Palmgren	Lesley	A	1202 101st Pl. NE, Bellevue, WA 98004	890141561		King	115
97	Pang	Garrick	J	12514 SE 25th Place, Bellevue, WA 98005	921545924		King	108
98	Peters	Jacqueline		20838 144th Av SE, Kent, WA 98042	890237304		King	3181
99	Peterson	Kenneth	A	12530 8th Ave. NW, Seattle, WA 98177	722834127		King	2215
100	Rapose	Robert	J	25207 SE 416th St, Enumclaw, WA 98022	990478627		King	684
101	Sanchez	Paula	A	25027 Lk. Wilderness CC Dr SE, Maple Valley, WA	896578		King	1218
102	SCHLICHT	Eric	P	16219 SE 178th Pl, Renton, WA 98058	880016130		King	2710
103	Senescu	Larry	K	17804 NE 27th, Redmond, WA 98052	710166242		King	941
104	Shah	Niharika	S	2708 S 275 Pl, Federal Way, WA 98003	20477474		King	3048
105	Shires Jr.	Tommy	M	811 SW 304th St, Federal Way, WA 98023	930123072		King	3013
106	Sill	Thomas	A	18354 W. Lake Desire Dr. SE, Renton, WA 98058	40287132		King	649
107	Sing	Jamey	L	29209 20th Ave S, Federal Way, WA 98003	880436988		King	3050
108	Smith	Justin	K	16238 12th Ave SW, Burien, WA 98166	980110028		King	848
109	So	Tony	J	1909 SW 331st Pl, Federal Way, WA 98023	990592627		King	3305
110	Staroverov	Viktor	I	1001 17th St SE #603, Auburn, WA 98002	990640792		King	81
111	Stearns	Ryan	P	550 Wilderness Peak Dr., Issaquah, WA 98027	990468818		King	3145
112	Strange	Ryan	A	8888 SE 37th St, Mercer Island, WA 98040	30457196		King	784
113	Tennent	Amy		817 6th St, Kirkland, WA 98033	740256343		King	627
114	Thaxton	Jeffrey	P	9400 Roosevelt Way NE #102, Seattle, WA 98115	990067589		King	2293
115	Thomas	Maria	B	14738 SE 244th, Kent, WA 98042	711772448		King	2704
116	Treverton	William	W	Flat 12, Harlequin Court, 20 Tavistock Street, London	910032623		King	203
117	Twardus	Angela	M	26009 158th Ave SE, Covington, WA 98042	447412		King	3279
118	Ayala	John	R	3513 33rd St NE, Tacoma, WA 98422	205683		Pierce	27335
119	Bahazar	Richard	D	1050 105th Court S, Tacoma, WA 98444	724400		Pierce	29550
120	Baldwin	Corinne	G	5316 Old Stump Dr. NW, Gig Harbor, WA 98332	787060		Pierce	26216
121	Barber	James	W	8811 69th St CT SW, Lakewood, WA 98498	726426		Pierce	28430
122	Blair	Kirk		14413 Sandyglen Ln E, Puyallup, WA 98375	56015		Pierce	25164
123	Brown	Peter	O	2833 Marietta St, Steilacoom, WA 98388	230073		Pierce	28451
124	Caldwell	Renee	D	6720 125th St CT E, Puyallup, WA 98373	30853		Pierce	25152
125	Casello	Shawna	M	14715 Crescent Valley Dr, Gig Harbor, WA 98332	142482		Pierce	26218
126	Coates	Robert	O	8 N Mare Vista Terrace, Tacoma, WA 98403	92800		Pierce	27309
127	Conrad	Steven	James	4109 N 21st, Tacoma, WA 98406	118288		Pierce	27307
128	Cunningham	Cassandra	M	11302 202nd Ave E, Sumner, WA 98390	220086		Pierce	31658

LAWFUL VOTES NOT COUNTED DUE TO REFUSAL TO CORRECT SIGNATURE MATCHING ERRORS

	Voter's Last name	Voter's First name	Voter's Middle name	Residence address	Voter ID/ registration number	Date of birth (Redacted)	County	Precinct
129	Evenson	Sandra	J	18110 Sky Island Dr, Bonny Lake, WA 98390	61391		Pierce	31622
130	Goodwin	Lorina	D	11036 Dear CT SW, Lakewood, WA 98498	757797		Pierce	28434
131	Guerra	Frank	P	703 116th St S, Tacoma, WA 98444	56038		Pierce	29555
132	Jacobs	Christin	D	7505 87th Ave SW, Lakewood, WA 98498	141866		Pierce	28430
133	Knoll	Tom	K	5830 28th AVE NW, Gig Harbor, WA 98335	273068		Pierce	26202
134	Knowles	Mark	A	13802 26th Ave CT NW, Gig Harbor, WA 98332	328746		Pierce	26218
135	Lee	Cecilia		4802 Nassen Ave NE #61, Tacoma, WA 98422	784908		Pierce	27335
136	Lemicux	Richard	A	7112 237th ST CT E, Graham, WA 98338	257701		Pierce	2035
137	Lineberry	Jeanette		1519 N Huson, Tacoma, WA 98406	129947		Pierce	26230
138	Martin	Linda	F	8104 224th ST E, Graham, WA 98338	235807		Pierce	2035
139	Masterman	William	T	3521 66th Ave W, University Place, WA 98466	192173		Pierce	28420
140	Matelski	Sean	M	9332 114th ST SW, Lakewood, WA 98498	793900		Pierce	28438
141	Mattson	Curtis	D	419 Judson ST S, Tacoma, WA 98444	17574		Pierce	29553
142	Mayer	Richard	A	12506 Prairie Ridge Dr E, Sumner, WA 98390	121596		Pierce	31663
143	Meirer	Anthony	P	8622 132nd ST E, Puyallup, WA 98373	334969		Pierce	25163
144	Nale	Robert	S	21801 113th ST E, Bonney Lake, WA 98390	54314		Pierce	31660
145	Nash	Kevin	L	18101 Bonney Lake Blvd, Bonney Lake, WA 98390	158778		Pierce	31622
146	Nguyen	Thoi	T	4801 E Q St, Tacoma, WA 98404	14106		Pierce	27339
147	Palmer	Lanning	R	12814 Old Military RD, Puyallup, WA 98374	45208		Pierce	31625
148	Pichette	Brendon	T	7612 50th Ave E, Tacoma, WA 98443	296431		Pierce	25140
149	Reza	Adrian	R	3918 Irene Ln SW, Lakewood, WA 98499	781769		Pierce	29536
150	Rickabaug	Marc	E	24617 104th Ave CT E, Graham, WA 98338	131344		Pierce	2048
151	Roberts	Christophe	M	119 179th ST E, Spanaway, WA 98387	233447		Pierce	2017
152	Romero	Ruben		1115 99th ST E, Apt.C, Tacoma, WA 98445	328930		Pierce	29565
153	Shannon	William	J	9505 Winona ST, Apt. 1, Tacoma, WA 98498	739497		Pierce	28438
154	Small Jr.	Joseph	B	6803 Whitman ST NE, Tacoma, WA 98422	107705		Pierce	27356
155	Smith	Cindy	R	20701 83rd ST CT E, Sumner, WA 98390	347001		Pierce	31656
156	Smith	Mary	J	1112A 109th ST E, Tacoma, WA 98445	636082		Pierce	25149
157	Sotelo	Bodine	D	35 Oak Park Dr SW, Lakewood, WA 98499	304284		Pierce	29534
158	Stevenson	Jeffrey	M	1820 N Lexington ST, Tacoma, WA 98406	292259		Pierce	27302
159	Straling	Margaret	P	3212 46th ST E Waller Rd, Tacoma, WA 98443	255302		Pierce	25138
160	Sweetman	Felix	E	9110 Highland Ave SW, Lakewood, WA 98498	26414		Pierce	28439
161	Tran	Ky	Van	9212 33rd Ave S, Lakewood, WA 98499	209861		Pierce	29536

LAWFUL VOTES NOT COUNTED DUE TO REFUSAL TO CORRECT SIGNATURE MATCHING ERRORS

	Voter's Last name	Voter's First name	Voter's Middle name	Residence address	Voter ID/ registration number	Date of birth (Redacted)	County	Precinct
162	Turner	Robert	Clarence	1412 12th Ave SE, Puyallup, WA 98372	736634		Pierce	25107
163	Wallington	Christophe	B	3105 N 20th, Tacoma, WA 98406	345161		Pierce	27311
164	Watson	Sharita		8017 31st Ave S, Lakewood, WA 98499	778493		Pierce	29533
165	Werner	Jason		11914 123rd Ave CT E, Puyallup, WA 98374	207706		Pierce	25173
166	Williams	Mark	R	11016 Maury Ln SW, Lakewood, WA 98498	251353		Pierce	28434
167	Bumpaous	Dorothy	E	4904 Bumpaous Rd, Pasco, WA 99301	182175		Franklin	- GRANGE HALL
168	Sommervil	Troy	P	2721 Rd 57, Pasco, WA 99301	206492		Franklin	- GRANGE HALL
169	Christian	Erik	B	1864 N River Rd, Cosmopolis, WA 98537	97930		Grays Harbo	46
170	Forbes	Mark	A	402 Draconis Ave SE, Ocean Shores, WA 98564	9299653		Grays Harbo	801
171	Franke	Selina		802 S Forrest St #10, Westport, WA 98595	55056		Grays Harbo	901
172	Heller	Samuel	J	112 N State St, Oakville, WA 98568	9312860		Grays Harbo	701
173	Hirt	Katherine		826 2nd St, Hoquiam, WA 98550	17322		Grays Harbo	431
174	Joy	David	A	120 E 4th St, Aberdeen, WA 98520	41643		Grays Harbo	131
175	Joy	Julie	Ann	120 E 4th St, Aberdeen, WA 98520	42780		Grays Harbo	131
176	Lybbert	Hedy		1194 SR 12, #13, Montesano, WA 98563	99078		Grays Harbo	31
177	McCauley	Vickie	M	701 Perry St, Hoquiam, WA 98550	62667		Grays Harbo	451
178	Reichenbe	Marilyn	R	959 Cranberry Rd, Grayland, WA 98547	66403		Grays Harbo	23
179	Terry	Gregory	L	358 Dolphin, Ocean Shores, WA 98569	9311918		Grays Harbo	801
180	Ennen	T	Dorothy	912 11th St, #102, Bellingham, WA 98225	5166		Whatcom	63
181	Haveman	Lisa	M	3311 Bay Rd, Ferndale, WA 98148	192059		Whatcom	160
182	Howard	William	H	1807 Main St, Lynden, WA 98264	145640		Whatcom	143
183	Parker	Clark	M	573 E Maberry Dr, Lyndon, WA 98264	193430		Whatcom	145
184	Taylor	Daniel	L	2615 Dakin St, Bellingham, WA 98226	158265		Whatcom	57
185	Treat	Joseph	Guy	4216 Alice St, Bellingham, WA 98226	232806		Whatcom	50
186	Canterbury	Tom	E	1335 Sleepy Hollow Rd, Wenatchee, WA 98801	21958		Chelan	75
187	Richardson	Brooke	L	801 Orondo Ave, Wenatchee, WA 98801	55423		Chelan	56
188	Rowing	John	R	1922 Broadview, Wenatchee, WA 98801	5399		Chelan	61
189	St. Germai	Layna	M	4678 Blair-Slack Rd, Wenatchee, WA 98801	27476		Chelan	3
190	Breitenstei	Maria	R	5717 S Grove Dr, Mukilteo, WA 98275	191241		Snohomish	212220
191	Burton	Christopher	P	1600 121st St SE, Everett, WA 98208	39881		Snohomish	444198
192	Chapman	Matt	J	7616 66th Pl NE, Marysville, WA 98270	275087		Snohomish	441209
193	Crisler	Brandon		10404 21st Ave SE, Everett, WA 98208	90492		Snohomish	444408
194	Curcio	Anthony	J	12515 Wayne Rd, Monroe, WA 98272	99356		Snohomish	444432

LAWFUL VOTES NOT COUNTED DUE TO REFUSAL TO CORRECT SIGNATURE MATCHING ERRORS

	Voter's Last name	Voter's First name	Voter's Middle name	Residence address	Voter ID/ registration number	Date of birth (Redacted)	County	Precinct
195	Dickinson	William	R	16417 77th Ave NE, Arlington, WA 98023	286073		Snohomish	391410
196	Marsh	Matt	L	4504 S 3rd Ave, Everett, WA 98203	121714		Snohomish	382231
197	Quackenbush	Arnie		24215 25th Ave SE, Bothell, WA 98024	3278		Snohomish	114101
198	Thompson	Damion	L	8324 Vernon Rd, Everett, WA 98205	141879		Snohomish	445412
199	Young	Alfred	J	9333 234th St SW, Edmonds, WA 98020	232113		Snohomish	323248
200	Anderson	Keli	A	205 Olympus Blvd, Point Ludlow, WA 98365	32508		Jefferson	303
201	Beste	Duane	P	43 Timber Ridge Dr, Port Ludlow, WA 98365	56625		Jefferson	502
202	Scheidt	Shelvy	J	23 Outlook Ln, Port Ludlow, WA 98365	57257		Jefferson	502
203	English	Paul	A	6716 83rd Ln SE, Olympia, WA 98513	12064277		Thurston	61.1
204	Rice	Mason	M	4938 B Wileshire Ct SE, Lacey, WA 98503	97050339		Thurston	331
205	Adkisson	Joseph	P	8101 NE 144th Ave, Vancouver, WA 98682	4535953		Clark	628
206	Bawm	Mildred	J	7605 NE 126th Ave, Vancouver, WA 98682	3098241		Clark	630
207	Bennett	Jeremy	R	7117 NE 58th Ave, Vancouver, WA 98661	4200591		Clark	330
208	Blick	Jacob	D	3202 E Mill Plain Blvd. #1, Vancouver, WA 98661	3548385		Clark	200
209	Capper	Jennifer	I	1508 NE 131st Circle, Vancouver, WA 98685	4773951		Clark	444
210	Cassidy	Kelly	W	4520 NE 24th Ave, Vancouver, WA 98663	1254410		Clark	147
211	Eggleston	Taylor		8512 NE 30th Ave, Vancouver, WA 98665	4235873		Clark	360
212	Hainsworth	Catlin	S	411 NE 138th Ave, Vancouver, WA 98684	4394938		Clark	659
213	Hansen	Anna	K	30813 NE 132 Ave, Battle Ground, WA 98604	4140335		Clark	540
214	Hicks	Aaron	J	11505 NE 15th ST, Vancouver, WA 98654	4414396		Clark	683
215	McKee	Mary	E	24504 NE 236th Circle, Battle Ground, WA 98604	4779813		Clark	592
216	Rasmussen	Ksenja	L	5910 NE 97th ST, Vancouver, WA 98665	2871456		Clark	565
217	Salverda	Lauren	R	1507 SE 113th Court, Vancouver, WA 98664	4697681		Clark	675
218	Schmidt	John	M	8510 NE 130th Ave, Vancouver, WA 98682	4523872		Clark	630
219	Simpson	Doris	A	8216 E Lorry Ave, Vancouver, WA 98664	621541		Clark	250
220	Sims	Susan	L	14611 SE 13th ST, Vancouver, WA 98683	3184162		Clark	681
221	Sklyarova	Galina	N	3413-D Fruit Valley Rd, Vancouver, WA 98660	4348560		Clark	90
222	Spuhler	Ryan	C	1614 NW 149th ST, Vancouver, WA 98685	4078751		Clark	446
223	Taylor	James	C	6703 Idaho ST, Vancouver, WA 98661	3564899		Clark	220