



# **ELECTION CENTER**

NATIONAL ASSOCIATION  
OF ELECTION OFFICIALS

**San Joaquin County, California  
Registrar of Voters**

# **REVIEW & ANALYSIS**

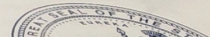
**of Election Billing  
Methodology**

**General  
Election**  
Friday, November 5, 2024  
Today, Vote Today!  
Mail ballot voting period is  
through November 5, 2024,  
from 7:00 a.m. to 8:00 p.m.

Official  
Voter  
Information  
Guide



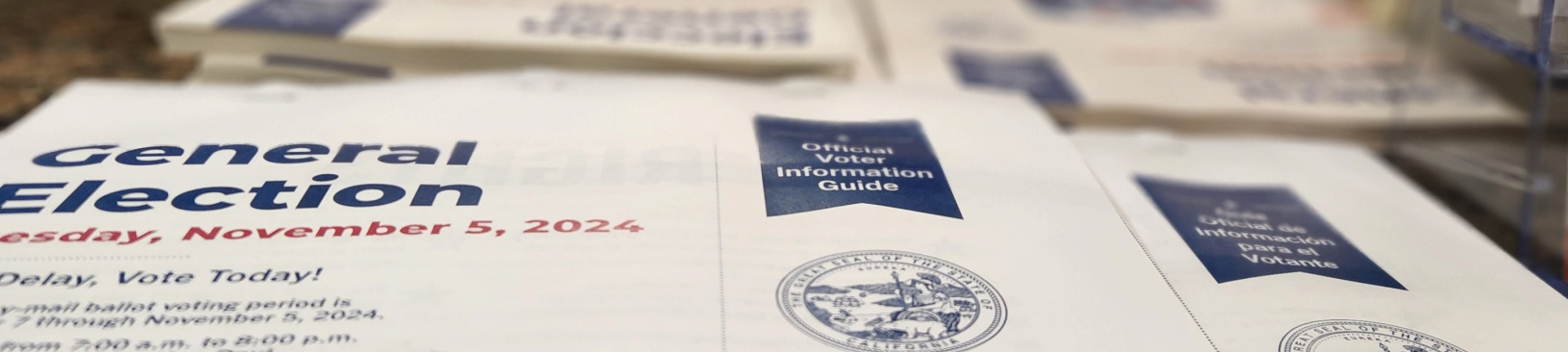
Guía  
Oficial de  
Información  
para el  
Votante



# Table of Contents

Figures and Tables.....	ii
Acronyms.....	ii
Executive Summary.....	1
Introduction.....	3
Context.....	4
Cost Accounting, Billing, and Elections.....	6
Analysis of Laws, Standards, and Best Practices.....	9
California Laws.....	9
Court Cases.....	11
Standards and Best Practices.....	12
Current Practice and Results Analysis.....	16
Evaluation of Legal Compliance.....	20
Recommendations.....	21
Action Plan.....	23
Billing.....	23
Ancillary Issues.....	24
Appendices.....	25
Appendix A: Demographics.....	26
Appendix B: California Election Code Summary.....	27
Appendix C: California Code Cross Reference Document.....	32
Appendix D: Study Process.....	38
Contributors.....	40





# Figures and Tables

Figure 1: Basic Billing Process.....	7
Table 1: Applicable Sections of California Code.....	10
Figure 2: Legacy Billing Method.....	17
Figure 3: Proportional Share Method.....	20

# Acronyms

**CACEO** - California Association of Clerks and Election Officials, a nonprofit, nonpartisan professional association.

**EdC** - Education Code of California, current law regarding education in California at the time of this report.

**EC** - Election Code of California, current law regarding election administration in California at the time of this report.

**GC** - Government Code of California, current law regarding local government in California at the time of this report.

**ICRP** - Independent cost rate proposal, expressed as a percentage usually by the local government using it or the local County Auditor, or some combination to account for overhead costs are not tracked by program but rather as a whole, such as rent and utilities for a local government function.

**ROV** - Registrar of Voters, in this case, the department head of for the local election department

**SJCROV** - Office of the San Joaquin County Registrar of Voters

**VIG** - Voter information guide, a set of voter educational materials mailed to each registered voter prior to a specific election that is required by California law.

# Executive Summary

This report summarizes a review of the San Joaquin County Elections Department's (SJCROV) billing process, the purpose of which is to ensure the current practice and procedures comply with applicable laws and are in line with best practices in the field, as well as to provide an action plan for the future. Note that this is not an audit of the SJCROV, nor is it a program audit. To conduct our analysis, the team reviewed election billings, spreadsheets, and documentation covering the period between November 2022 and March 2024; interviewed fiscal and management staff; conducted site visits; reviewed California state law pertaining to election billing; and reviewed practices from around the state of California and disciplinary best practices. We are pleased to report the SJCROV's billing methodology overall complies with federal and California law and is substantially in line with industry best practice.

In the report, we note several important contextual factors that influence our review of SJCROV billing practices. First, there has been significant turnover in recent years in the county, which challenges the ability of new and existing staff to keep up with and implement best practices. Second, California law mandates cost recovery for election offices. Third, producing an election billing, and ensuring it is accurate, is more than an accounting function and requires executive management oversight as well as adequate staff (including temporary staff) training to ensure that all relevant items are appropriately tracked. Fourth, state law does not treat the costs to local jurisdictions the same for all types of jurisdictions: cities, school districts, and special districts. Fifth, across the state there are multiple methods of splitting out costs and a wide diversity of practices, all consistent with law.

We then review and lay out state law and relevant court cases, as well as the variety of practices that are often used in California to split out election costs. Perhaps the most important of these for this report is Election Code is § 10520 which states that "Each district involved in a general district election in an affected county *shall* reimburse the county for the actual costs incurred by the county elections official thereof in conducting the general district election for that district. The county elections official of the affected county shall determine the amount due from each district and *shall* bill each district accordingly" (emphasis added).



We then lay out and describe current practice and compare that practice with state law, court cases, and other disciplinary best practices and practices across the state. From these, we lay out a series of recommendations, as summarized:

1. Update legacy billing method to proportional share;
2. Discontinue indirect/overhead charges in billing to cities;
3. Including the San Joaquin Board of Education in calculating the billing and considering invoicing them;
4. Modify documentation;
5. Adopt a corrected published fee schedule;
6. Consider adding in other allowable items;
7. Label billing to show state and federal contests and county burden;
8. Expand direct election costs;
9. Review operational versus election specific charges;
10. Consider useful life for new equipment and maintenance costs;
11. Ensure consistency in billing;
12. Perform logic check on voter information guide billing;
13. Clarify internal naming;
14. Institute cost control reviews.

Finally, we conclude with an action plan for both billing and other ancillary issues.



# Introduction

In the late summer and fall of 2024, a team was assembled by the Election Center (National Association of Election Officials) to work with the staff of the San Joaquin County Registrar of Voters Office (SJCROV) and Olivia Hale, the Registrar of Voters. The Election Center's mission is to serve the people who serve democracy by facilitating and providing information sharing, training, technical assistance, and consulting work to support election offices and officials. The charge in this project generally was to evaluate the billing process currently in use by SJCROV, ensure the current practice and procedures comply with applicable laws and are in line with best practices in the field, and to provide an action plan for the future. San Joaquin County is located south of Sacramento in the central valley of California, along the I-5 corridor. Its population is just over 779,000 people with approximately 376,000 registered voters. More detailed demographic information can be found in Appendix A.

This report captures the current practice of election billing at SJCROV, compliance with current law and best practice, and options for moving forward to ensure the most accurate and equitable billing for the voters of San Joaquin County. We note that SJCROV's current billing methodology overall complies with federal and California law and is substantially in line with industry best practice.



San Joaquin County, California

This is not an audit of the SJCROV, nor is it a program audit. Individual accounting transactions were not examined or confirmed. Election billings from November 2022 and March 2024 were examined closely, spreadsheets and documentation from both billings were studied in person and remotely, and fiscal staff and management staff from the SJCROV were interviewed on multiple occasions, both remotely and in person. We also examined the laws of the state of California and the billing practices of Registrars of Voters around California. We then compared the current practices of SJCROV to that of the law and other Registrars' practices to formulate our recommendations.



## Context

We would like to acknowledge that the team of professionals at San Joaquin County have taken on the challenge of this additional project during the busiest election of their cycle, to ensure that they are producing the most accurate product in all areas of their operation, including billing, despite the distractions that currently stretch resources to their limits.<sup>1</sup>

Turnover of staff has had a deep impact on many counties,<sup>2</sup> including San Joaquin. Turnover is occurring at the executive level of election departments across California and the nation, in addition to the loss of support staff. This has resulted in some localities experiencing internal upheaval and can also come with the loss of institutional knowledge that then forces the replacement staff to reinvent processes, procedures and documentation, instead of simply continuing operations. Registrar of Voters (ROV) Olivia Hale is the seventh (7th) registrar in the county over the past two presidential cycles (since 2016), and several key fiscal staff members are also serving voters with less than a four-year cycle of experience in the field. The turnover rate appears to be slowing down dramatically in SJCROV. This is an important consideration when looking at billing, as frequent management and fiscal staff turnover puts pressure on consistency and makes it difficult for new managers to engage in making changes to increase efficiency and implement best practices.

The process of conducting the major service of a department on behalf of other jurisdictions and sending them a bill for the actual costs is a process unique to the Election Department in some counties. For this reason, the practices and procedures tend to be industry specific, with differences across counties and states, and not comparable to the practice of billing out an enterprise fund service like water or sewer. In California Election Code, counties are mandated to bill out the cost of elections, as specified in Election Code § 10520 “Each district involved in a general district election in an affected county shall reimburse the county for the actual costs incurred by the county elections official...” In legal contexts, “shall” is used to indicate a mandatory obligation or requirement, meaning that something is not optional but must be done; thus counties are obligated to collect reimbursements for actual costs.

---

<sup>1</sup> The field of election administration has been forced to adapt over the past decade to respond to the relatively new and popular phenomenon of mis- and disinformation about the field generally. Unfortunately, narratives including mis-, dis- and malinformation about how votes are counted have taken hold across the nation, and this has had a very real and tangible effect on the work of local election officials. This situation has both financial and non-financial costs in election administration.

<sup>2</sup> Local Election Officials Survey. April 2023. The Brennan Center. <https://www.brennancenter.org/our-work/research-reports/local-election-officials-survey-april-2023>

Producing an election billing, and ensuring it is accurate is more than an accounting function. The complex nature of conducting elections in California directly impacts the complexity of producing a lawful and fair sharing of costs between the entity responsible to conduct the election and the districts that have chosen to consolidate with a particular election. In order to evaluate the efficacy of cost recovery and balance the responsibilities of all of the various partner agencies, the billing must be reviewed by executive management staff in the election department (ideally ROV and/or assistant ROV) and the accompanying documentation and methodology must be updated regularly to accommodate for law changes, updates to the cost reimbursement process (i.e. SB 90 mandate process in California), and other outside factors. The documentation of these processes and reviews is also an essential component.

While billing staff have access to all expense and revenue data, if the department line staff supervisors do not train temporary staff to correctly code their time to one function or another, for example, then accounting staff cannot accurately capture full inclusion of labor costs in the billing. While accounting staffers can and should be responsible for aggregating cost data and compiling the billing spreadsheets, executive management generally should have a working knowledge of the billing itself and be able to logic check both the methodology and the product of their work, that is, the billing spreadsheets and invoices. A logic and consistency check will consist of verifying that the vendors, amounts and items included in the budget spreadsheets and county financial reports correspond to the individual items present in the billing spreadsheets for the most recent election, and that the activities and costs incurred match required activities necessary to conduct an election in California. Departmental staff should have a deep knowledge and understanding supplemented by robust documentation in order to ensure a continuity of procedure and adherence to laws and regulations.



# Cost Accounting, Billing, and Elections

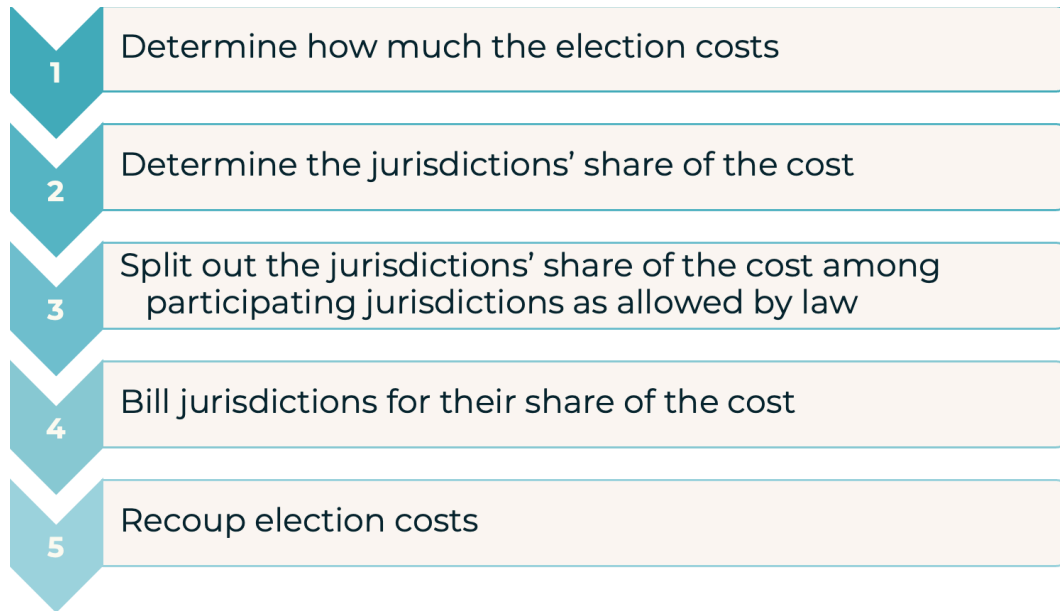
The practice of consolidating elections in California leads to a consistent process for voters, who get to see one ballot with many contests, all conducted in one election cycle and counted by the same election administration body and vote tabulation system. Consolidating elections also means the Election Department or local authority shares the cost burden and expenses with the participating jurisdictions pursuant to state law. It is important and beneficial for public organizations to charge for services provided to discourage possible overconsumption of those services. For example, if there were no charge for running elections, then jurisdictions may want the county to run many special elections outside of the regular election calendar and increase the total amount expended by the county for election services. By charging for the service, you are encouraging more efficient use of election administration resources (and, we would argue, are also serving the voters better). However, unlike the private market for goods and services where consumers have the choice to buy a service, the local jurisdictions often do not have a choice of whether they are going to have an election. Therefore, they have to pay for the cost of running their election as it is defined in law. Additionally, having a transparent process that recovers all of the costs that are allowable under state law is also an important value for public billing for election administration services.

San Joaquin County Registrar of Voters Office



The basic process that all governments have to go through to bill for the election includes the following steps:

**Figure 1: Basic Election Billing Process**



The first step sounds straightforward, but it is not. State law often does not allow costs that have been incurred before the election, or that would not have been incurred if the election had not occurred to be included. This means that the Registrar of Voters must determine when the election starts for time tracking purposes and determine which costs will be billed to the local jurisdiction. As defined in federal cost accounting standards, the key standards for determining which costs can be billed for are “reasonable” and “allowable.”<sup>3</sup>

State laws and regulations determine which costs are allowable, but administrators should also make sure that the costs that they are allocating to their jurisdictions are reasonable as well.

The second step of the process is to determine what share of the costs get passed down to the local jurisdictions that participated in the election. Because the federal government does not pay local governments to conduct elections, the cost of federal elections and in California, the entire burden of state elections, is borne by the county and these costs are essentially an unfunded mandate on the county. Therefore, there has to be a way of determining the amount that is

<sup>3</sup> Mohr, Z., Kropf, M.E., McGowan, M.J., and Pope, J.V. (forthcoming) *A Republic if You Can Afford It: How Much Does it Cost to Administer Elections?* Cambridge University Press.



divided among the jurisdictions. In San Joaquin County's legacy billing method, this is currently decided by determining the number of items appearing on the ballot from each jurisdiction, but as we will discuss below, there are many other ways that this can be done.

The third step necessitates the cost to be borne by each individual jurisdiction be split between all of the local jurisdictions that participated in the election. In our experience, all of the direct costs that can be directly traced to jurisdictions are assigned to that jurisdiction and all additional costs that cannot be directly traced to a jurisdiction are split among all of the jurisdictions. These remaining costs are usually allocated, or split out proportionally, by the number of registered voters in each jurisdiction. The reason for using registered voters is twofold. Using registered votes is a simple and relatively straightforward way of breaking out the cost. Also, it is the way that county offices usually plan for conducting and staffing elections. Therefore, it corresponds with the use of resources quite well. If it were as simple as breaking out the total cost of the election among jurisdictions, this would be a quite easy step, but state law does not treat the jurisdictions equally in terms of what costs it will allow. We describe state law and court cases involving these laws in the sections below.

Finally, the fourth and fifth steps include the county billing the jurisdictions that participated in the election and recouping the costs. In this way, a county charges local jurisdictions that participate in an election.

The point of the previous discussion is to demonstrate why charging for election services should be encouraged and to outline the basic principles that should be used. While reasonable people may disagree about some of the costs that may be charged, it is ultimately the ROV who must understand the law and the election practices in the jurisdiction and use their judgement to determine the cost of the election. From that point, the process of splitting out the costs to be billed to the jurisdictions should be based on a transparent process that conforms with applicable law.

# Analysis of Laws, Standards, and Best Practices

Interestingly, state law does not treat the costs to local jurisdictions the same for all types of jurisdictions: cities, school districts, and special districts. Given that the standards for costing services are “reasonable” and “allowable” and that there are multiple methods of splitting out costs, there is a wide diversity of practices. It is not surprising that one report that we reviewed noted “a bewildering array of billing methods” and “a great variety in the set of items whose costs are apportioned” to create a billing in each county.<sup>4</sup> While we find a similar patchwork among the counties, we note that generally, cost recovery models and processes have been aligned to legal standards and found to be compliant when challenged. Below, we describe the state law and relevant court cases and outline the variety of practices that are often used in California to split out the costs.

## California Laws

State laws provide the foundational legal basis for allowable costs. In Appendix B, we provide the most pertinent laws for election jurisdictions in the State of California. Combined with the court cases that have reviewed the application of these laws, this provides the legal basis for what and how a county can charge jurisdictions for which election services have been provided. The code sections listed below are the laws relevant to general election code, education code, and government code.

In general, California election law specifies in only a few places how and what costs to consider billing out to participating jurisdictions. The Election Code, the Education Code and the Government Code each have a few sections that address billing methodology for elections, but the law does not cover all aspects or answer every question about how billing should be conducted. As noted in the court cases reviewed below, local jurisdictions have discretion in determining how to handle a variety of costs.

---

<sup>4</sup>CACEO, 1991 Report, Billing Subcommittee  
<https://www.caceo58.org/assets/documents/election%20billing%20subcommittee%20report%201991.pdf>

**Table 1: Applicable Sections of California Code**

Election Code Sections	Education Code Sections	Government Code Sections
10100	5420	16100.6
10404.5	5421	50054
13001	5422	51350
10520	5423	
	5424	
	5425	
	5426	
	5227	

The most relevant section from the Election Code is § 10520.

“Each district involved in a general district election in an affected county shall reimburse the county for the actual costs incurred by the county elections official thereof in conducting the general district election for that district. The county elections official of the affected county shall determine the amount due from each district and shall bill each district accordingly.”

The Education Code § 5420 enumerates what costs are reasonable for the election but then says that “but need not be limited to”, which has caused significant disagreement between counties and their education districts as can be seen in the court cases which follows. However, the law is clear in other sections, such as § 5421, that “[t]he cost of any election held within a single district shall be borne by the entire district and shall be paid out of its funds.”

Additionally, § 51350 of the Government Code states that when counties charge cities for services rendered that the county is not to include overhead on those charges.

## Court Cases

Key relevant court rulings further define what costs are reasonable and allowable by law. In our research, we have found two major and two minor cases that should be noted. In this section is a summary of a few court cases as they pertain to election costs that are billed to jurisdictions that participate in elections.



San Joaquin County Registrar of Voters Drop Box

### ***County of Fresno v. Clovis Unified School District, et al. (1987)***

This case was focused on an unsuccessful recall election of school trustees. The point of the case was whether the county could charge for the costs of verifying the unsuccessful recall petition. Judge Dibiaso found that

“Because Ed. Code § 5424 does not apply to the costs here in issue, Elections Code §10000, which imposes the burden of pre-call costs on the county, is controlling.”<sup>5</sup>

The cost of checking the petition is a cost that must be borne by the county if there is not an election.

“Thus, under §10000, if there is no "call" for a city recall election by reason of a deficiency in the petition, the costs of checking the inadequate petition are nonetheless borne by the county, not the city.”

### ***Yolo County v. Los Rios, College District (1992)***

This case also focused on a challenge to an education related election. There are two major issues in this case. The first being the method of proration and the second being the actual costs that could be billed. In this case, the trial judge ruled that "an allocation of the voter opportunity prorated" costs among cities and districts is acceptable. On appeal, Judge Davis stated, “using a proration method not in issue in this appeal.” In essence, the use of cost allocation methodology to split out costs is not at issue.

---

<sup>5</sup> Because of a renumbering that occurred in 1994 (Chapter 920), the above referenced EC §10000 is currently numbered as EC §13001, found here: [https://leginfo.legislature.ca.gov/faces/codes\\_displaySection.xhtml?sectionNum=13001&lawCode=ELEC](https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?sectionNum=13001&lawCode=ELEC). The cross reference matrix for this renumbering can be found in Appendix C.



Like the County of Fresno case, however, the case also was about which costs were allowable. In the decision for the Court, Judge Davis also concluded,

“We conclude that a county cannot charge a school district for the costs of election functions, activities or operations the county would have to undertake or engage in regardless of whether the school district was in the election...We also conclude that a county cannot charge a school district for costs incurred in board races where there is only one candidate for each office...”

Specifically at issue here were costs surrounding voter list maintenance, establishing and reviewing precinct lines, and training poll workers. The court said that voter list maintenance could not be charged to the District, that under some circumstances that the establishment and review of precinct lines could be, and that training poll workers could be prorated to the District because it represents “the kinds of nuts-and-bolts conduct and balloting costs listed in (California Education Code) section 5420.”

### Minor Cases

There are two minor cases that also touch on the practice of costing and billing government services. In *California Association of Professional Scientists v. Department of Fish and Game* (2000) the court reviewed an earlier case of *Mills v. Fish and Game* (1995) and upheld the practice that government has the burden of proof in documenting the reasonable cost of providing services for which it will collect a charge for service. In *Dutcher v. Olson* (1984), the court found that the County could not charge twice for the service of providing candidate statements to the voters and that the law provided discretion in not requiring the candidate statement to be billed.

## Standards and Best Practices

Within the state of California, several analyses of billing practice have been performed in the past several decades. One was produced for the County of San Joaquin in 2017, for the County of Marin in 2002, and for Butte County in 2003. There is reportedly another analysis currently ongoing in Contra Costa County. We also examined documents from Solano County and the California Association of Clerks and Election Officials (CACEO) Fiscal Project that began in 2012. That project continues currently in the form of a Fiscal Staff Workshop that meets regularly within the framework of regular CACEO meetings in person and virtually. That project produced an analysis of the six primary methods used by

counties across California, which we will reference in this report.<sup>6</sup>

In developing data for the study of election billing beginning in 2012, the CACEO Fiscal Project grouped the several ways that counties within California were billing participating jurisdictions. Collected between 2012 and 2016, there were six documented methods that are grouped into three categories (A is the proportional share versions, Category B is the retrospective fee schedule, and C is the cost studies). The six documented methods are listed below:

- A-1. generic proportional share,
- A-2. modified generic proportional share,
- A-3. another modified generic proportional share,
- B. retrospective fee schedule,
- C-1. jurisdictional cost study and
- C-2. modified jurisdictional cost study.

Within California, we generally see three main methods with a few variances to develop the cost to be billed and collected from the participating jurisdictions.

Under A-1, the *generic proportional share method*, costs incurred for elections are prorated based on the number of registered voters in each jurisdiction with contests or measures appearing on the ballot. The steps for A-1 are as follows:

- Step 1 - Determine the costs associated with conducting an election. For example, these costs may include candidate filing, ballot setup and printing, sample ballot and voter information setup and printing, vote by mail costs, poll workers, temporary election staff, and polling place setup. An indirect cost rate percentage (ICRP), also known as an overhead rate, is then applied to the election total direct costs for a specific election to determine the overall cost to conduct an election. The ICRP rate is determined by the county auditor using CFR Title 2, Subtitle a, Chapter 2, Part 200 and may vary from county to county.
- Step 2 - Determine the total number of voting opportunities and the proportional share each participating jurisdiction is responsible for based on its number of registered voters. Voting opportunity is defined as one share for each jurisdiction on the ballot, with added shares for federal, state, and county contests. There is some variation amongst counties for multiple contests within a jurisdiction or category. Cost per voting opportunity is

---

<sup>6</sup> The California Association of Clerks and Election Officials, Election Costs Project and Fiscal Workshops, <https://www.caceo58.org/election-costs>

determined by gathering election costs and dividing those by the total number of registered voters for all jurisdictions on the ballot.

- Step 3 - An election cost for each jurisdiction is determined by multiplying the voting opportunity cost by the number of registered voters in the jurisdiction.

Under the *A-2 modified generic proportional share method*, billing is determined by prorating the number of contests caused and the number of registered voters.

Under the *A-3 modified generic proportional share method*, costs incurred for elections are allocated based on the number of precincts but may be allocated based on the number of voters or vote by mail requests, depending on the cost category.

A-3 is similar to A-1, but prorating the billing begins with ballot type instead of actual costs. If an entity generates 20 ballot types, with federal, state and county contests on 15 of the ballot types, and federal, state, county *and* city contests on the other 5 types, the ballot types with city contests are divided by 4 and billed out, while the other 15 ballot types are divided by 3 and billed out. This method varies more than the A-1 method based on the number of voters in each precinct. If most voters are using ballot types that are divided 3 ways, they share more of the costs than the voters whose ballot types are divisible by 4.

Under B, the *retrospective fee schedule method*, the county looks back at all expenses attributed to the most recent federal election. All expenses are divided by number of registered voters and applied to entities. A base fee is established in which all set-up costs for the previous federal election are divided by the number of entities on the ballot for that same election.

The billing is always based on the election two years in the past, with primary elections always compared to primary elections and general elections always compared to general elections.

C-1, the *jurisdictional cost study method*, establishes a weighted registration factor by multiplying the number of registered voters by the cost per candidate. This method is dependent on the number of candidates per contest.

The actual costs for all categories are added to the indirect costs using an indirect cost rate proposal (ICRP) developed and calculated by the county auditor.

In C-1, there are several steps. They are as follows:

1. Determine all costs.
2. Determine factor for number of contests per jurisdiction. For example, the first contest factor is 1, and the second contest factor is 0.15, for a total of 1.15.
3. Multiply total contest factor times registered voters in each jurisdiction which equals the weighted registration factor per jurisdiction.
4. Add up the weighted registration factor for all jurisdictions.
5. Divide the weighted registration factor for each jurisdiction by the total weighted registration factor to equal a percentage cost factor.
6. Multiply the cost factor times the election cost to get the billed election cost to each jurisdiction (not including any direct costs)

C-2, the *modified jurisdiction cost study method*, is similar to the above, but step 3 (determining jurisdictional costs) is different. Jurisdictional cost is determined by multiplying the number of registered voters by the factor to determine the weighted average of registered voters. The weighted average of registered voters per jurisdiction is then divided by the total weighted average of registered voters, which equals the weighted average factor. Weighted average factor is then multiplied by pooled voter cost, sample ballot costs, and division indirect charges. Direct identified charges are then added to determine total allocated costs.

The six documented methods described above were collected almost ten years ago and may have been refined and updated since; however, this is the most current data available.

In an effort to collect more current data, we surveyed several other comparable counties in California to establish the current state of their billing practices. We requested copies of their current procedures and inquired if each county had reviewed or updated their procedures in the last 10 years. We received a variety of responses; however, many counties expressed a desire to examine and update



their billing procedures outside of an election cycle, likely in 2025, and declined to share their outdated documentation. Several counties reported that their billing procedures are documented and continued through verbal knowledge transfer alongside complex spreadsheets. One county, Contra Costa, is currently undergoing a review from an outside vendor. Sacramento County uses a fee schedule centered methodology and updates its costs and procedures regularly, every two years. Orange County provided a current overview of their current billing practice.

## Current Practice and Results Analysis

SJCROV currently uses what is termed the legacy methodology to create an election billing to districts that delegate the responsibility of conducting elections to SJCROV. The legacy billing method allocates the districts' proportional share to accumulate and distribute costs among participating jurisdictions who have contests appearing on a specific ballot in the election. This cost distribution is then billed to participating districts to reimburse the county for a proportional share of the county's incurred election costs.

The legacy billing methodology consists of a three-step process.

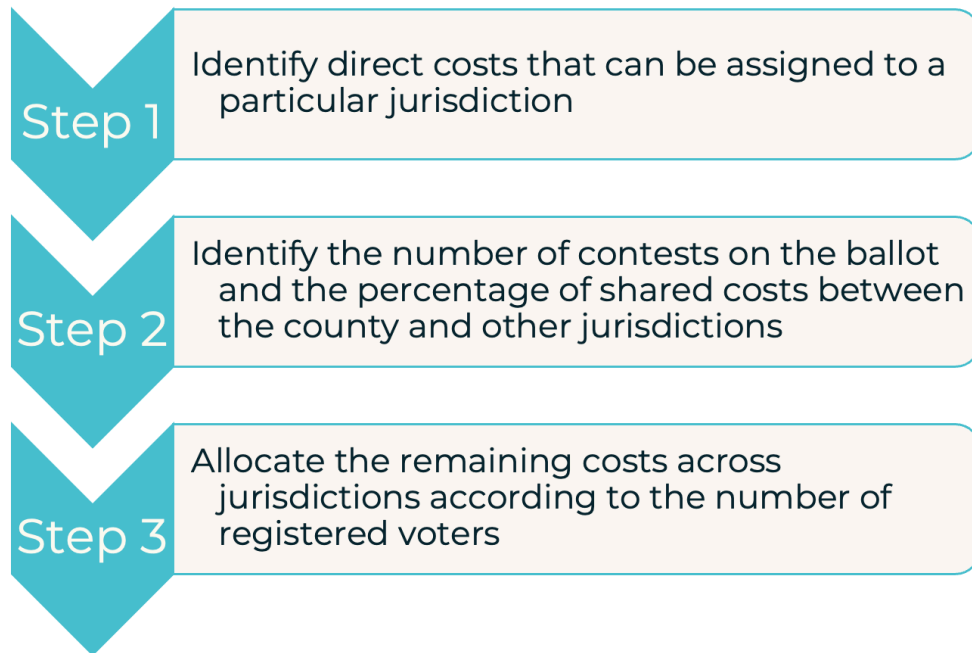
Step one is to identify all costs and any specific direct costs that can be assigned to a particular jurisdiction.

Step two identifies the number of contests on ballot, and the number of those contests that are from consolidating jurisdictions. The contests from each jurisdiction are divided by the total number of contests to determine a percentage that represents the share of cost between the county and all other consolidating jurisdictions. City/District items (contests) on the ballot divided by total number of formula items (contests) on the ballot equals the percentage representing shared cost.

Step three then allocates the pooled remainder costs across the jurisdictions that have appeared on ballot for that specific election based upon registered voters.

While it is clear upon examination that the county is paying for the state, federal and county contests on the ballot based on the second step of the allocation methodology, it may not be clear to the governing boards or to the public.

**Figure 2: Legacy Billing Method**



*We recommend that the department label the county share of cost indicating that it includes the state and federal share in all documents and procedures to call that fact out. It is important for the sake of transparency that the other billed jurisdictions are able to see that the county is paying the most significant share of election costs. Additionally, advocating for the state and federal governments to pay their own way is easier when those costs are identified.*

While reviewing the March 2024 billing, it was noted that there was a cost allocated to the Sacramento County Board of Education which had appeared on the ballot in March 2024. However, the San Joaquin Board of Education contest, which was also on the ballot and involved a significantly higher number of voters, was not included in the billing calculations. Current SJCROV staff commented about this and were unsure as to the origin of this practice, which had been in place for some time. After researching this issue, we discovered that while there are a few counties in California that do not bill their local Board of Education (also known as the County Office of Education) for election services, the vast majority do. We believe this is a remnant of the Office of Education's separation from the county structure statewide which occurred in the 1950's and 1960's. *At a minimum, we recommend that these election costs be included in the calculations even if charges are not billed out. The inclusion of the district in the calculations will affect the other participating jurisdictions based on the proportional sharing of costs.*

*Additionally, we recommend consistency between determining the denominator in step 2 and step 3. Specifically, this means determining a new method of spreading allowable costs across the items that appear on ballot fairly and consistently. Currently, the two equations use very different denominators in a way that can artificially skew the cost spread, by using both the number of contests and the number of voters. We believe a more fair and stable billing would result from comparison between the number of voters in both calculations.*

Step 1 in the legacy method includes direct costs from the sample ballot, or voter information guide, as reported on the invoice from the print vendor. *We recommend a logic check on these very complex invoices to ensure correct amounts are being allocated to specific districts in the future on top of the current invoice audit performed by the fiscal staff at the SJCROV and within the county Auditor's office.*

SJCROV staff have also indicated a desire to assign more costs as 'direct' in the future. *We support adding specifically allocatable costs like postage, translation costs, envelope print costs, and paper ballot printing to the direct category of expenses, thereby charging jurisdictions the most accurate share of expenses when possible.*

After direct charges are identified, all other expenses should be examined and categorized as either operational or election specific charges. Operational costs are either excluded entirely or have some portion allocated for inclusion in the billing's "shared cost." This aggregated shared cost is then spread across participating jurisdictions using the calculation in Step 2.

The analysis and determination of which costs are included as operational versus election specific, and which are direct versus shared, are two separate processes that introduce a high level of complexity to the development of a fair and equitable billing that complies with the law. *The second process of determining direct versus shared costs would benefit from explicit consistency where possible, and robust documentation would provide needed support for the process.*

*When the election department obtains new capital equipment in the future, we recommend that election fiscal staff determine the useful life of the equipment in coordination with the county auditor. That determined value and useful life determined cost over time can then be included in each billing. Once*

the useful life cost is recaptured in full, then only ongoing actual maintenance costs for that capital equipment would be included in billing for each subsequent election.

A significant concern we identified is the calculation of Step 2 and 3 in the current legacy methodology. The calculations are inconsistent. The county is treating the two sets of entities differently between Step 2 and Step 3. In Step 2, all contests are treated the same, regardless of the number of voters served. In Step 3, costs are proportionately shared across jurisdictions based on registered voters. *We recommend that SJCROV update the legacy methodology to create a modified version of their Step 2 that will account for the size and resource use of participating jurisdictions in an election.*

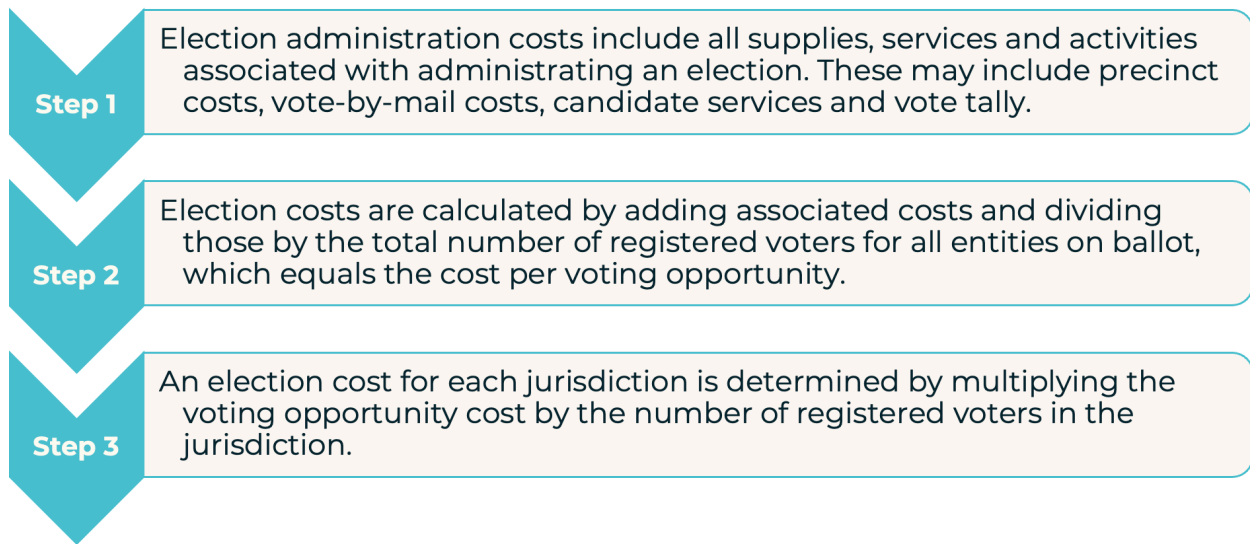
As previously mentioned, CACEO produced a report between 2014 and 2016 that examined the primary methods of election billing used amongst the counties in California. There were six variations of three billing methods that were identified and detailed in that report. *The method we recommend for San Joaquin County is commonly referred to as the proportional share method, labeled A-1 elsewhere in this report.*

The *proportional share method* is a method of sharing costs across participating jurisdictions as a percentage based on the number of registered voters. It develops in Step 2 a cost for “voting opportunities.” As defined earlier in this report, voting opportunity is defined as the number of choices a voter can make on each ballot. The voting opportunity cost is determined by dividing the total cost of the election by the number of voting opportunities. We recommend this methodology because it dovetails nicely into the existing legacy methodology used by SJCROV. SJCROV is already performing the pre-work and the post-work necessary for this step, so implementation would require minimal changes to current practice within San Joaquin County, which we believe has several advantages. It allows staff to continue to work in the way they are accustomed and also to more cleanly and easily develop procedures and documentation, which are an essential component of maintaining consistency through time for election billing.

We recognize that the new method of calculating the second step of the billing may lower election revenue overall that is recovered by the county. Through this analysis we have also discovered that some specific cost elements included in billing have not been included in full. The inclusion of all of these expenses instead of merely a portion of them will increase revenue, which will balance



**Figure 3: Proportional Share Method**



the possible loss of revenue in the Step 2 percentage adjustment. For example, in our recommendations at the end of the report, we recommended the entire cost of the warehouse rent be included in election billing instead of only charging 90%. The inclusion of this entire cost will be proportionally shared among the jurisdictions and the county for each election, and should balance out to a minimal net increase in both revenue and expenses. Another example would be increasing the number of hours worked under the management labor cost to more accurately reflect the investment of time for each election based on determinations made by the department. While this increases the dollar amount of expenses included in the election billing, the update to the proportional share split giving the county an appropriate share based on the number of registered voters in San Joaquin County, and the obligation of the county to conduct federal, state, and county elections without reimbursement, will result in a more equitable outcome.

## Evaluation of Legal Compliance

We are pleased to report the SJCROV's billing methodology overall complies with federal and California law and is substantially in line with industry best practice.

Current practice is to apply ICRP to salaries which is allowable and a reasonable decision. Because of the variety of procedures used by counties around the state to develop and apply ICRPs, and county cost plans and fringe policies, we believe that San Joaquin County is operating within legal parameters and allowable

procedures. In addition, the San Joaquin County Auditor's office has developed the ICRP based on salary calculation, and the election department's application of this rate to their salaries in election billing is consistent and appropriate.

An important exception is the past practice of charging municipalities for indirect or overhead costs. This may not be considered an appropriate cost<sup>7</sup> and it is our understanding that the department ceased this practice beginning with the March 2024 election billing.

## Recommendations

The following list of recommendations consists of items that we strongly recommend be implemented by the SJCROV.

1. Update the legacy billing methodology to the proportional share method (A-1) to provide consistency in the proportional spread of cost responsibilities between the county and participating districts/jurisdictions in a specific election, as allowed by law. Develop documented procedures for such to ensure consistency election to election.
2. Discontinue including indirect or overhead charges in billings to municipalities in the county per California Government Code § 51350.
3. Begin including the San Joaquin Board of Education in the calculation of regular billing of elections in which their candidates appear on ballot per EC § 10404.5 and § 10520, and EdC § 5420 and § 5423. We recommend that county administration engage in negotiations with the County Office of Education to reimburse the County for actual costs incurred in conducting elections where elected board members, at a minimum, appear on ballot.
4. Document both legacy and new billing procedures for historical purposes. This will also facilitate training of new staff members and ensure consistency of practice over time.
5. Review and update the SJCROV's published Fee Schedule, as it is not consistent with current legacy billing practice and will need to match

---

<sup>7</sup> California Government Code 51350 [https://leginfo.ca.gov/faces/codes\\_displaySection.xhtml?sectionNum=51350&lawCode=GOV](https://leginfo.ca.gov/faces/codes_displaySection.xhtml?sectionNum=51350&lawCode=GOV)

and potentially explain the updated billing methodology and process.

6. Consider items not currently included in billing consistently that we recommend are eligible for cost recovery:
  - a. Management team labor costs;
  - b. Panopto cloud storage for poll worker video training;
  - c. Direct charges for publications where they are able to be identified;
  - d. Proportional cost of useful life of capital equipment purchases;
  - e. Camera costs for video surveillance of drop boxes;
  - f. Entire cost of warehouse rent.
7. Label billing to identify that the county share includes the federal and state contests that appear on the ballot without reimbursement. This is the county's responsibility, and costs are already borne by the county. We believe it will be helpful for all stakeholders to be aware of this burden on the San Joaquin taxpayers.
8. Expand the direct election costs that can be easily attributed to specific jurisdictions participating in a given election, such as postage, translation costs, envelope print costs, and paper ballot printing, to the direct category of expenses, thereby charging jurisdictions the most accurate share of expenses when possible.
9. After direct charges are identified, examine and categorize all other expenses as either operational or election specific charges. Operational costs are either excluded entirely or have some portion allocated for inclusion in the billing's "shared cost." This aggregated shared cost is then spread across participating jurisdictions using the calculation in step 2.
10. In the future, when obtaining new capital equipment, work with the county auditor to determine the useful life of the equipment. That determined value and useful life determined cost over time can then be included in each billing. Once the useful life cost is recaptured in full, then ongoing actual maintenance costs for that capital equipment only would be included in billing for each subsequent election.

11. Develop robust documentation to inform Step 2 with explicit consistency and provide needed support for the process.
12. Institute a logic check, at minimum, if planning to continue to use the voter information guide (VIG) print invoice data as the basis for billing jurisdictions for those direct costs to verify the information being transmitted from the VIG print vendor to the billing itself.
13. Update the account name called “Election Software and Services” to eliminate confusion with the election vendor named ES&S.
14. Analyze the costs, goods and services obtained through purchase from outside vendors over time. This will act as a cost control measure. A two or four year look back by vendor and products purchased is recommended to see if the costs increase over time, as compared to the Consumer Price Index or some other standardized inflationary measure, to assist the department in controlling price creep. This will also provide a tool available for use as new invoices arrive to allow price increases to be documented and discovered in real time.

## Action Plan

Implementation of the recommendations above constitutes the bulk of the action plan. Below we list prioritized action steps taken from the detailed Recommendations above.

### Billing

1. Implement the proportional share method (A-1) for San Joaquin County Elections.
2. Use of a proportional share method could include labeling the calculation with a “county, state and federal share” of overall costs, along with labeling public facing communications to specify that cities are not billed for overhead costs.
3. Develop an outreach plan to explain new procedures to participating districts following adoption of new methodology.



4. Perform logic checks of the VIG invoices specifically, and others more generally, if those invoices are used as the basis of direct charges passed on to participating jurisdictions in a specific election.
5. Create and maintain a comprehensive set of process and procedure documentation for billing, and we encourage staff to begin this process as soon as possible, ideally while compiling the November 2024 billing.

## Ancillary Issues

1. Develop comprehensive documentation for all fiscal processes including billing.
2. Review and update of the published Fee Schedule to bring it into alignment with new billing practices.
3. Perform analysis of non-contracted election purchases of goods and services over the past four-year cycle to ensure best stewardship of tax dollars by the department.
4. County Administration should negotiate with the County Office of Education to achieve some measure of reimbursement for conducting Board of Education governing board elections.





Review and Analysis of Billing Methodology for  
San Joaquin County, California Registrar of Voters

# Appendices



# Appendix A: Demographics

Demographics - San Joaquin County, California  
August 2024

- **Population:** 779,233 (2020)
- **Number of registered voters:** 376,181
  - > Democrat: 160,230
  - > Republican: 111,171
- **Potentially eligible voters:** 195,800
- **Turnout (Registered):**
  - > 2024 Primary: 34.9%
  - > 2022 General: 46.14%
  - > 2022 Primary: 28.74%
  - > 2020 General: 79.92%
  - > 2020 Primary: 46.09%
  - > 2018 General: 57.01%
  - > 2016 General: 68.95%
- **Number of Permanent staff:** 30
- **Average number of Temporary staff:** 12
- **Voting System Vendor:** Hart InterCivic
- **VCA participation:** No
- **Number of elections:** 1 per fiscal year (usually)
- **Type of ballot used:** Optical Scan
- **Political competition:**
  - > 2020 Presidential: Biden +13.82%
  - > 2016 Presidential: Clinton +14.18%
- **Comparable Counties:**
  - > Contra Costa
  - > Fresno
  - > Orange (equipment)
  - > Stanislaus
  - > Solano
  - > Sacramento
  - > Merced
  - > Ventura

# Appendix B: California Election Code Summary

This is not an exhaustive list of relevant code section, only the most relevant to our report. Please note that California law changes regularly and this text is from the latest version of the law at the time this report was published.

## CA Elections Code sections

**10100.** Whenever the county elections official is required to examine the signatures upon any nomination paper or petition of any candidate for a municipal office, he or she may employ necessary help for the examination. The cost shall be paid by the city.

**10404.5.** (a) A resolution of the governing board of a school district or county board of education to establish an election day pursuant to subdivision (b) of Section 1302 shall be adopted and submitted to the board of supervisors not later than 240 days prior to the date of the currently scheduled election of the district or for the members of the county board of education.

(b) The final date for the submission of the resolution by the governing board of a school district or county board of education to the board of supervisors is not subject to waiver.

(c) The board of supervisors shall notify all school districts and the county board of education located in the county of the receipt of the resolution to consolidate and shall request input from each district on the effect of consolidation.

(d) (1) The board of supervisors, within 60 days from the date of submission, shall approve the resolution unless it finds that the ballot style, voting equipment, or computer capacity is such that additional elections or materials cannot be handled. Prior to the adoption of a resolution to either approve or deny a consolidation request, the board or boards of supervisors may obtain from the elections official a report on the cost-effectiveness of the proposed action.

(2) Public notices of the proceedings in which the resolution is to be considered for adoption shall be made pursuant to Section 25151 of the Government Code.

(e) Within 30 days after the approval of the resolution by the board of supervisors, the elections official shall notify all registered voters of

the districts affected by the consolidation of the approval of the resolution by the board of supervisors. The notice shall be delivered by mail and at the expense of the school district or if applicable, the county board of education.

- (f) An election day established pursuant to subdivision (b) of Section 1302 shall be prescribed to occur not less than one month, nor more than 12 months, subsequent to the election day prescribed in Section 5000 of the Education Code or pursuant to Section 1007 of the Education Code, as appropriate. As used in this subdivision, “12 months” means the period from the election day prescribed in Section 5000 of the Education Code or pursuant to Section 1007 of the Education Code, as appropriate, to the first Tuesday after the first Monday in the 12th month subsequent to that day, inclusive.
- (g) In the event that the election day for a school district governing board or county board of education is established pursuant to subdivision (b) of Section 1302, the term of office of all then incumbent members of that governing board or county board of education shall be extended accordingly.

**13001.** All expenses authorized and necessarily incurred in the preparation for, and conduct of, elections as provided in this code shall be paid from the county treasuries, except that when an election is called by the governing body of a city the expenses shall be paid from the treasury of the city. All payments shall be made in the same manner as other county or city expenditures are made. The elections official, in providing the materials required by this division, need not utilize the services of the county or city purchasing agent.

**10520.** Each district involved in a general district election in an affected county shall reimburse the county for the actual costs incurred by the county elections official thereof in conducting the general district election for that district. The county elections official of the affected county shall determine the amount due from each district and shall bill each district accordingly.

## CA Education Code sections

**5227.** In those cases in which the boundaries of the school district, high school district, or community college district, governed by a city board of education, are not coterminous with the boundaries of the city, and where elections, either primary, general, or recall, of members of the board of education are by the provisions of the laws governing the cities held at times other than on the day of municipal elections, general or special, the cost and expense of the district

elections shall be a legal charge against the funds of the district or districts governed by the board of education. The city shall be reimbursed by the district or districts for its actual cost and expense incurred in the conduct of the election or elections. The cost and expense of conducting the election in territory common to two or more districts shall be borne by the districts in equal shares. In territory within a single district the cost shall be borne by the district.

In those cases in which the school district, high school district, or community college district is governed by a city board of education, and elections, either primary, general, or recall, of members of the board of education are by the provisions of the laws governing the cities held on the same day as municipal elections, general or special, a proportionate part of the actual cost and expense of the election shall be a legal charge against the school districts governed by the board of education. The city shall be reimbursed for the proportionate cost and expense incurred in the conduct of the election. The cost and expense of the elections within the boundaries of the city shall be apportioned between the city and the districts in the ratio that the total number of offices to be filled and propositions to be voted upon by the electors of the city and the school district or districts, respectively, bears to the total number of offices to be filled and propositions submitted. The cost and expense of the election in territory outside of the municipal boundaries shall be borne by the districts affected. As between the districts, costs and expense shall be apportioned as follows: In territory common to two or more districts the cost of conducting the election shall be borne in equal shares, and in territory within a single district the cost shall be borne by the district.

**5420.** The cost of any school district or community college district election may include, but need not be limited to:

- (a) Compensation of precinct election officers.
- (b) Publication of notices.
- (c) The cost of printing official ballots, sample ballots, indexes, arguments, statements, official notices, and card notices.
- (d) Mailing charges for card notices, arguments, recommendations, statements, and sample ballots.
- (e) Forms for rosters, tally sheets, certificates, envelopes, declaration of results forms, and legal forms required for bond elections.
- (f) Precinct maps.
- (g) The actual cost of supplies such as flags, ballot boxes, chairs and tables, booths, ink pads and stamps, and pencils; provided, that if any such can be borrowed from any state or county office, no charge for rental shall be included in the cost of elections.



**5421.** The cost of any election held within a single district shall be borne by the entire district, and shall be paid out of its funds. Election costs shall be determined by the county elections official and approved by the county board of supervisors.

**5422.** The cost of elections, including consolidated elections, held in territory common to two or more districts shall be borne by the districts concerned in equal shares and paid from district funds.

**5423.** The cost of consolidated governing board elections shall be paid by the county superintendent of schools having jurisdiction from the county school service fund, and the cost shall be prorated among the districts concerned to reimburse the fund.

**5424.** The cost of any recall election shall be borne by the district in which the recall election is held and paid from district funds.

**5425.** The cost of the election for the formation of a community college district shall be paid from the county general fund.

**5426.** The cost of any election held under the provisions of Article 8 (commencing with Section 4400) of Chapter 2 of Part 3 of this division, or Article 7 (commencing with Section 35690) of Chapter 3 of Part 21 of Division 3 of Title 2, or Article 3 (commencing with Section 74630) of Chapter 5 of Part 46 of Division 7 of Title 3, where the election is being held for the assumption of bonded indebtedness of the district to which the territory is being transferred or where the county board of supervisors requires an election to be held in the whole district from which the territory would be transferred, shall be paid from the county general fund.

## CA Government Code sections

**16100.6.** Out of the amount appropriated to the Controller by Section 16100, the Controller shall pay each year to each local government on claims submitted 45 days after the effective date of the addition of this section to the code and on September 1 of each year thereafter the actual increased cost to that local government caused by Section 8106 of the Elections Code. The Controller may reduce any claim that appears to be excessive or unreasonable and shall adjust the payment for the current fiscal year for any underpayment or overpayment in a prior fiscal year. The Controller may audit the records of any local public agency to verify actual cost.

**50054.** Whenever any city or county or city and county renders construction services or constructs public works for any city, county, city and county or any other governmental agency below the level of the state government, the price charged for such services or construction shall be sufficient to reimburse the governmental body performing such services for the full cost thereof including labor, material, equipment costs or rentals and a reasonable allowance for overhead. In computing overhead, without limitation on other factors properly includable, there shall be allocated to the overhead cost its proportionate share of indirect labor and administrative costs.

**51350.** A county which provides services through its appropriate departments, boards, commissions, officers or employees, to any city pursuant to contract or as authorized by law, shall charge the city all those costs which are incurred in providing the services so contracted or authorized. A county shall not charge a city contracting for a particular service, either as a direct or an indirect overhead charge, any portion of those costs which are attributable to services made available to all portions of the county, as determined by resolution of the board of supervisors, or which are general overhead costs of operation of the county government. General overhead costs, for the purpose of this section, are those costs which a county would incur regardless of whether or not it provided a service under contract to a city.

Any determination of general overhead costs shall be subject to court review as to the reasonableness of such determination.

This section does not apply to a contract or agreement in effect on December 31, 1983, made by a county.

# Appendix C: California Code Numbering for Court Cases

Following is a cross reference matrix for California Election Code resulting from a renumbering omnibus bill passed in 1994 and enacted in 1995, Chapter 920.

Derivation Table—1994 Stats., c. 920

Old	New	Old	New	Old	New	Old	New
1	1	51	21000	315	2119	703	2203
2	2	52	13	316	2120	703.5	2204
3	3	53	106	318	2121	704	2205
4	4	54	15450	319	2122	704.5	2206
5	5	55	10	320	2123	705	2207
6	6	58	11	400	2135	707.5	2208
7	7	60	15	401	2136	707.6	2209
8	353	70	200	402	2137	707.7	2210
9	8	75	201	403	2138	707.8	2211
10	310	100	2000	404	2139	708	2212
11	354	200	349	405	2140	709	2213
12	335	201	2020	406	2141	800	2220
13	311	202	2021	407	2142	800.1	2221
14	307	203	2022	408	2143	800.2	2222
15	320	204	2023	500	2150	800.3	2223
16	347	205	2024	501	2151	801	2224
17	321	206	2025	502	2152	802	2225
18	359	206.5	2026	503	2153	803	2226
19	318	207	2027	503.5	2154	804	2227
20	324	208	2028	504	2155	805	2228
21	341	209	2029	505	2156	825	2240
22	340	210	2030	506	2157	826	2241
22	340	211	2031	507	2158	827	2130
23	316	212	2032	507.5	2159	1000	320
23	316	214	346	508	2160	1001	3000
24	357	215	2033	509	2161	1002	3001
25	321	216	2034	509.1	2162	1002.5	3002
26	348	217	2035	509.3	2163	1003	3003
27	356	225	2050	510	2164	1004	3004
28	327	226	2051	511	2165	1005	3005
29	326	227	2052	511.5	2166	1006	3006
30	325	228	2053	512	2167	1006.1	3007
31	352	300	2100	600	2180	1006.3	3008
32	351	300.5	2101	601	2181	1007	3009
33	314	301	2102	602	2182	1008	3010
34	313	302	2103	603	2183	1009	3011
35	338	303	2104	604	2184	1009.5	3012
36	337	304	2105	604.5	305	1010	3013
37	334	304.5	2106	605	2185	1011	3014
38	329	305	2107	606	2186	1012	3015
39	339	306	2108	607	2187	1012.5	3016
40	319	307	2109	608	2188	1013	3017
41	100	308	2110	609	2189	1014	3018
41.5	101	309	2111	611	2190	1015	3019
42	102	309.5	2112	611.1	2191	1016	3020
43	103	310	2113	612	2192	1017	3021
44	104	311	2114	613	2193	1018	3022
45	105	311.5	2115	615	2194	1019	3023
47	9	311.6	2116	700	2200	1100	322
49	12	312	2117	701	2201	1101	3400
50	14	313	2118	702	2202	1101.5	3401

489

1995

Old	New	Old	New	Old	New	Old	New
1102	3402	1409	15008	1648	12327	3523	9033
1103	3403	1409.5	15009	1649	12313	3523.1	9034
1104	3404	1410	15010	1650	12281	3524	9035
1105	3405	1411	15011	1651	12314	3525	9040
1106	3406	1450	3200	1652	12315	3526	9041
1107	3407	1451	3201	1653	12310	3527	9042
1109	3408	1452	3202	1654	12311	3528	9043
1126	331	1453	3203	1655	12312	3529	9044
1127	3500	1454	3204	2500	1000	3530	9050
1128	3501	1455	3205	2500	1000	3531	9051
1129	3502	1456	3206	2501	1001	3532	9052
1130	3503	1500	12200	2501	1001	3533	9053
1200	3100	1501	12220	2502	1002	3539	9060
1201	3101	1503	12260	2503	1003	3560	9061
1202	3102	1504	12283	2520	1100	3561	9062
1202.1	3103	1504.5	12282	2550	1200	3562	9063
1202.3	3104	1504.6	12284	2551	1201	3563	9064
1203	3105	1505	12223	2551	1201	3564	9065
1204	3106	1506	12226	2552	1202	3564.1	9066
1205	3107	1507	12228	2552	1202	3565	9067
1206	3108	1508	12224	2553	12000	3566	9068
1206.3	3109	1508.5	12240	2600	1300	3567	9069
1206.5	3110	1509	12227	2601	1301	3567.5	9080
1207	3111	1510	12225	2602	1302	3568	9081
1208	3112	1511	12221	2603	1303	3569	9082
1300	3300	1513	12222	2604	1500	3569.5	9083
1301	323	1513.1	12262	2650	1400	3570	9084
1302	3301	1514	12261	2651	10700	3570.5	9085
1303	3302	1515	12325	2652	10701	3571	9086
1304	3303	1630	12301	2653	12001	3572	9087
1304.5	3304	1631	12304	3500	9000	3572.5	9088
1305	3305	1632	12305	3501	9001	3573	9089
1305.5	3306	1633	12302	3502	9002	3574	9090
1306	3307	1634	12308	3502.05	9003	3575	9091
1307	3308	1635	12303	3503	9004	3576	9092
1308	3309	1636	12320	3504	9005	3577	9093
1309	3310	1637	12321	3505	9006	3578	9094
1310	3311	1637.5	12300	3506	9007	3578.5	9095
1340	4000	1638	12326	3507	9008	3579	9096
1340.5	4001	1638.5	12280	3508	9009	3700	9100
1341	4002	1638.7	12285	3509	9010	3701	9101
1350	4100	1639	12306	3510	9011	3701.5	9102
1351	4101	1640	12309	3511	9012	3702	9103
1352	4102	1641	12307	3513	336	3702.1	9104
1353	4103	1642	12103	3514	9013	3702.5	9105
1400	15000	1642.3	12318	3515	9014	3702.7	9106
1401	15001	1642.9	12104	3515.1	9015	3703	9107
1402	15002	1643	12105	3516	9020	3704	9108
1403	15003	1643.3	12106	3517	9021	3704.5	9109
1404	15004	1644	12229	3519	9022	3705	9110
1405	15005	1645	12319	3520	9030	3705.5	9111
1407	15006	1646	12316	3521	9031	3705.6	9112
1408	15007	1647	12317	3522	9032	3706	9113

1995

490

	New	Old	New	Old	New	Old	New		Old	New	Old	New	Old	New	Old	New	Old	New
3707	9114	4015.5	9220	5152.4	9305	6006	6321		6123	6543	6214	6725	6292	6847	6351	6146		
3708	9115	4016	9221	5152.5	9306	6007	6322		6130	6560	6215	6726	6293	6848	6355	6160		
3709	9116	4017	9222	5152.6	9307	6008	6323		6131	6561	6220	6740	6294	6849	6360	6180		
3710	9117	4018	9223	5153	9308	6008	6323		6132	6562	6220	6740	6300	6000	6360	6180		
3711	9118	4019	9224	5153.5	9309	6010	6340		6133	6563	6221	6741	6301	6001	6360.5	6950		
3713	9119	4020	9225	5154	9310	6010	6340		6134	6564	6222	6742	6303	6002	6361.5	6181		
3714	9120	4021	9226	5154.3	9311	6011	6341		6135	6565	6222	6742	6303.1	6003	6365	6200		
3715	9121	4050	9235	5156	9312	6012	6342		6136	6566	6223	6743	6303.2	6004	6365.5	6201		
3716	9122	4050.1	9236	5156.5	9313	6013	6343		6138	6567	6223	6743	6303.3	6005	6366	6202		
3717	9123	4051	9237	5156.6	9314	6013	6343		6139	6568	6224	6744	6305	6020	6367	6203		
3718	9124	4052	9238	5157	9315	6021	6360		6139	6568	6225	6745	6305	6020	6368	6204		
3719	9125	4053	9239	5157.2	9316	6024	6361		6140	6580	6230	6760	6305.1	6021	6370	6220		
3720	9126	4054	9240	5157.5	9317	6025	6362		6141	6581	6231	6761	6305.2	6022	6371	6221		
3750	9140	4055	9241	5157.6	9318	6026	6363		6142	6582	6232	6762	6306	6023	6372	6222		
3751	9141	4056	9242	5158	9319	6027	6364		6143	6583	6233	6763	6307	6024	6375	6240		
3751.7	9142	4057	9243	5159	9320	6028	6365		6144	6584	6234	6764	6310	6040	6376	6241		
3752	9143	4058	9244	5160	9321	6030	6380		6145	6585	6235	6765	6311	6041	6400	8000		
3753	9144	4059	9245	5161	9322	6031	6381		6146	6586	6236	6766	6311	6041	6401	8001		
3754	9145	4060	9246	5162	9323	6032	6382		6147	6587	6237	6767	6312	6042	6401.5	8002		
3755	9146	4061	9247	5200	9340	6033	6383		6148	6588	6238	6768	6313	6043	6402	8003		
3755.5	9147	4080	9255	5200.1	9341	6040	6400		6149	6589	6239	6769	6315	6060	6430	5100		
3780	9160	4081	9256	5201	9342	6041	6401		6150	6590	6240	6780	6316	6061	6430.5	5101		
3781	9160	4082	9257	5210	9360	6042	6402		6151	6591	6241	6781	6316	6061	6431	5102		
3782	9161	4083	9258	5215	9380	6043	6403		6152	6592	6242	6782	6325	6080	6432	5200		
3783	9162	4084	9259	5300	9400	6044	6404		6153	6593	6243	6783	6326	6081	6461	12100		
3784	9163	4085	9260	5301	9401	6045	6405		6154	6594	6244	6784	6327	6082	6462	12101		
3785	9164	4086	9261	5302	9402	6046	6406		6155	6595	6245	6785	6328	6083	6463	12102		
3785.1	9165	4087	9262	5303	9403	6050	6954		6156	6596	6246	6786	6328.3	6084	6489	333		
3786	9166	4088	9263	5304	9404	6055	6420		6157	6597	6247	6787	6328.3	6084	6490	8020		
3787	9167	4089	9264	5305	9405	6056	6421		6158	6598	6248	6788	6328.5	6085	6490.1	8024		
3788	9168	4090	9265	5320	350	6057	6422		6159	6599	6249	6789	6329	6086	6490.2	8025		
3790	9180	4091	9266	5321	9500	6060	6440		6160	6953	6250	6790	6329	6086	6490.3	8026		
3795	9190	4093	9267	5322	9501	6061	6441		6170	6620	6251	6791	6329.5	6087	6490.4	8027		
4000	9200	4094	9268	5323	9502	6062	6442		6171	6621	6252	6792	6330	6100	6490.5	8028		
4001	9201	4095	9269	5324	9503	6063	6443		6190	6640	6253	6793	6331	6101	6491	8040		
4002	9202	5010	306	5325	9504	6070	6460		6191	6641	6254	6794	6332	6102	6493	8060		
4002.5	9203	5011	9280	5326	9505	6071	6461		6193	6642	6255	6795	6333	6103	6494	8041		
4002.7	9204	5012	9281	5327	9506	6080	6480		6194	6643	6256	6796	6334	6104	6494.1	8061		
4003	9205	5013	9282	5328	9507	6100	6500		6195	6644	6257	6797	6335	6105	6495	8062		
4004	9206	5014	9283	5329	9508	6102	6501		6196	6645	6258	6798	6336	6106	6496	8063		
4005	9207	5014.1	9284	5330	9509	6103	6502		6197	6646	6260	6951	6337	6107	6496.5	8064		
4006	9208	5014.5	9285	5350	9600	6110	6520		6198	6647	6261	6952	6338	6108	6497	8065		
4007	9209	5015	9286	5351	9601	6110	6520		6200	6700	6261	6952	6340	6120	6498	8042		
4008	9210	5016	9287	5352	9602	6111	6521		6202	6701	6270	6820	6341	6121	6499	8066		
4009	9211	5020	9290	5353	9603	6112	6522		6203	6702	6271	6821	6342	6122	6500	8067		
4009.5	9212	5025	9295	5354	9604	6113	6523		6210	6720	6272	6822	6342	6122	6501	8068		
4009.6	9213	5150	9300	5355	9605	6113	6523		6210.5	6721	6285	6840	6343	6123	6502	8069		
4010	9214	5151	317	5357	9606	6114	6524		6210.5	6721	6286	6841	6345	6140	6503	8102		
4011	9215	5151.5	308	5358	9607	6120	6540		6211	6722	6287	6842	6346	6141	6504	8080		
4012	9216	5152	9301	6000	6300	6120	6540		6211	6722	6288	6843	6347	6142	6505	8070		
4013	9217	5152.1	9302	6002	6301	6121	6541		6212	6723	6289	6844	6348	6143	6506	8081		
4014	9218	5152.2	9303	6005	6320	6122	6542		6213	6724	6290	6845	6349	6144	6507	8082		
4015	9219	5152.3	9304	6005	6320	6123	6543		6214	6725	6291	6846	6350	6145	6508	8083		

491

1995

1995

492

Old	New	Old	New	Old	New	Old	New	Old	New	Old	New	Old	New	Old	New	Old	New
6509	8021	6836	8407	6878	7171	9162	7357	9500	7460	9681	7636	9779	7778	10000	13001		
6550	8100	6837	8408	6871	7180	9163	7358	9501	7461	9682	7637	9780	7779	10001	13002		
6551	8101	6838	8409	6874	7185	9164	7359	9502	7462	9683	7638	9781	7780	10001.5	13003		
6552	8103	6860	8450	6874.5	7186	9165	7360	9503	7463	9684	7639	9782	7781	10002	13004		
6553	8104	6861	8451	6871	7187	9166	7361	9504	7464	9685	7640	9783	15490	10002.5	13005		
6554	8105	6862	8452	6874	7188	9167	7362	9505	7465	9686	7641	9784	7782	10003	13006		
6555	8106	6863	8453	6870	7190	9168	7363	9506	7466	9687	7642	9785	7783	10004	13007		
6555.5	8084	6864	8454	6871	7191	9169	7364	9507	7467	9688	7643	9786	7784	10005	13000		
6556	8107	6890	8500	6872	7192	9170	7365	9508	7468	9689	7644	9787	7785	10006	13200		
6580	8120	6891	8501	6873	7193	9171	7366	9509	7469	9690	7645	9790	7800	10007	13300		
6580.5	8121	6892	8502	6874	7194	9240	7375	9510	7470	9700	7650	9790.5	7801	10008	13301		
6581	8122	6893	8503	6875	7195	9240.5	7376	9600	7500	9701	7651	9791	7802	10009	13302		
6582	8123	6894	8504	6876	7196	9241	7377	9610	7500	9702	7652	9792	7803	10010	13303		
6583	8124	6920	8550	6877	7197	9242	7378	9611	7551	9703	7653	9793	7804	10010.2	13304		
6584	8125	7200	10702	6878	7198	9243	7379	9611.5	7552	9704	7654	9794	7805	10010.5	13305		
6610	15451	7200.5	10703	6880	7200	9270	7380	9611.6	7553	9705	7655	9801	7820	10011	13306		
6611	8140	7201	10704	6880.5	7201	9271	7381	9611.7	7554	9706	7656	9810	7830	10012	13307		
6612	8141	7202	10705	6881	7202	9272	7382	9612	7555	9707	7657	9811	7831	10012.1	13308		
6613	8142	7203	10706	6882	7203	9273	7383	9613	7556	9708	7658	9812	7832	10012.3	13309		
6614	8143	7204	10707	6883	7204	9274	7384	9614	7557	9709	7659	9813	7833	10012.5	13310		
6614.5	8144	7300	8600	6883.5	7205	9276	7385	9615	7558	9710	7660	9814	7834	10012.7	13311		
6615	8145	7301	8601	6884	7206	9277	7386	9616	7559	9711	7661	9815	7835	10013	13312		
6616	8146	7302	8602	6885	7207	9278	7387	9617	7560	9712	7670	9816	7836	10013.5	13313		
6617	8147	7303	8603	6886	7208	9279	7388	9618	7561	9713	7671	9816.5	7837	10014	13219		
6618	8148	7304	8604	6887	7209	9280	7389	9620	7570	9722	7672	9817	7838	10015	13314		
6619	8149	7310	8650	6888	7210	9320	7400	9630	7575	9723	7673	9819	7839	10016	1331		
6620	8150	7311	8651	6889	7211	9321	7401	9631	7576	9724	15480	9820	7840	10017	13315		
6650	8800	7312	8652	6890	7212	9322	7402	9632	7577	9725	7674	9821	7841	10200	13100		
6651	8801	7313	8653	6891	7213	9323	7403	9633	7578	9730	7680	9822	7842	10200.5	13102		
6651.5	8802	8000	7000	6892	7214	9324	7404	9634	7579	9731	7681	9823	7843	10201	13103		
6653	8803	8500	7050	6893	7215	9325	7405	9635	7580	9732	7682	9831	7850	10203	13203		
6653.3	8804	8510	7100	6894	7216	9326	7406	9640	7600	9733	7683	9832	7851	10204	13204		
6654	8805	8660	7150	6895	7225	9327	7407	9640.1	7601	9740	7690	9833	7852	10205	13205		
6655	8806	8660.1	7151	6896	7226	9328	7408	9640.2	7602	9741	7691	9834	7853	10206	13206		
6656	8807	8660.2	7152	6897	7227	9329	7409	9641	7603	9742	7692	9835	7854	10207	13207		
6657	8808	8660.3	7153	6898	7228	9330	7410	9642	7604	9743	7693	9836	7855	10208	13208		
6658	8809	8661	7154	6899	15460	9331	7411	9643	7605	9744	7694	9837	7856	10208.5	13209		
6659	8810	8662	7155	6895	7229	9332	7412	9644	7606	9745	7695	9838	7857	10209	13104		
6660	8811	8663	7156	6896	7235	9333	7413	9645	7607	9750	7700	9842	7870	10210	13105		
6661	8605	8664	7157	6897	7240	9334	7414	9646	7608	9760	7750	9843	7871	10210.5	13106		
6800	8300	8665	7158	6898	7241	9335	7420	9647	7609	9761	7751	9850	7880	10211	13107		
6801	8301	8666	7159	6899	7242	9371	7421	9648	7610	9762	7752	9851	7881	10212	13108		
6802	8302	8667	7160	6900	7243	9372	7422	9649	7611	9763	7753	9852	7882	10213	13109		
6803	8303	8668	7161	6901	7244	9373	7423	9650	7612	9764	7754	9853	7883	10214	13110		
6804	8304	8669	7162	6902	7250	9374	15470	9651	7613	9765	7755	9854	7884	10215	13202		
6810	8350	8670	7163	6903	7300	9375	7424	9652	7614	9770	7770	9950	5000	10216	13111		
6831	8400	8671	7164	6904	7350	9422	7430	9660	7620	9771	7771	9951	5001	10217	13112		
6831.1	8401	8672	7165	6905	7351	9423	7431	9661	7621	9772	7772	9952	5002	10217.5	13113		
6832	8402	8673	7166	6906	7352	9440	7440	9670	7625	9773	7773	9953	5003	10217.7	13114		
6833	8403	8674	7167	6907	7353	9441	7441	9670.5	7626	9774	7774	9954	5004	10218	13115		
6834	8404	8675	7168	6908	7354	9442	7442	9671	7627	9775	7775	9955	5005	10219	13116		
6834.1	8405	8676	7169	6909	7355	9443	7443	9672	7628	9776	7776	9956	5006	10219.5	13117		
6835	8406	8677	7170	6910	7356	9444	7444	9680	7635	9777	7777	10000	13001	10220	1321		

Old	New	Old	New	Old	New	Old	New
10221	13211	11704	20004	14212	14217	14400.1	14222
10222	13212	11705	20005	14213	14218	14401	14223
10223	13213	11706	20006	14214	14219	14402	14224
10224	13214	11707	20007	14215	14220	14403	14225
10225	13215	11708	20008	14216	14240	14404	14226
10226	13216	11709	20009	14217	14241	14405	14227
10227	13217	11710	16	14218	14242	14427	14289
10229	13231	12200	20100	14219	14243	14500	17000
10230	13230	12300	20200	14220	14244	14510	17001
10230.1	13232	12300.1	305	14221	14245	14600	17100
10231	13118	12301	20201	14222	14246	14700	17200
10232	13201	12302	20202	14223	14247	14800	17300
10233	13220	12303	20203	14224	14248	14810	17301
10234	13233	12400	20300	14225	14249	14811	17302
10235	13119	12401	20301	14226	14250	14820	17303
10236	13120	12500	20400	14227	14251	14821	17304
10300	303	12510	20420	14228	14252	14830	17305
10301	13280	12511	304	14229	14253	14831	17306
10302	13281	12512	305	14230	14278	14900	17400
10302.5	13282	12513	20420	14231	14279	14950	17500
10303	13283	12520	20440	14232	14280	14960	17501
10304	13284	12522	20441	14233	14281	14970	17502
10305	13285	12523	20442	14234	14282	14971	17503
10306	13286	12524	20443	14236	14283	14980	17504
10307	13287	12525	20444	14237	14284	14981	17505
10307.5	13316	12527	20500	14238	14321	14990	17506
10308	13288	12528	20501	14239	14285	15003	315
10309	13289	12530	20502	14240	14286	15004	320
10320	13240	14000	14100	14241	14287	15005	344
10321	13241	14001	14101	14242	14288	15006	355
10322	13242	14002	14102	14243	14290	15007	360
10323	13243	14003	14103	14244	14291	15008	361
10324	13244	14004	14104	14245	14292	15009	362
10324.5	13317	14005	14105	14246	14293	15010	358
10325	13245	14005.4	14106	14247	14294	15020	19001
10326	13246	14005.5	14107	14249	14295	15021	19002
10327	13247	14005.6	14108	14250	14296	15022	19003
10330	301	14006	14109	14251	14297	15023	19210
10331	302	14007	14110	14252	14298	15024	19211
10332	344	14008	14111	14253	14310	15025	19005
		345	14009	14045	14255	15026	19212
10333	13260	14200	14210	14300	14400	15100	19100
10334	13261	14201	14211	14301	14401	15101	19203
10335	13262	14202	14200	14302	14402	15102	19101
10336	13263	14203	14201	14303	14403	15103	19102
10337	13264	14204	14202	14304	14404	15104	19204
10338	13265	14205.5	14203	14305	14405	15105	19103
10339	13266	14206	14212	14306	14406	15110	19200
10340	13267	14207	14213	14350	14000	15111	19201
11700	20000	14208	14214	14351	14001	15112	19202
11701	20001	14209	14215	14352	14002	15113	19205
11702	20002	14210	14320	14354	14003	15114	19206
11703	20003	14211	14216	14400	14221	15115	19207

495

1995

Old	New	Old	New	Old	New	Old	New
15116	19208	15321	19321	17058	15156	17182	15641
15117	19209	15322	19322	17059	15157	17183	15642
15118	19213	15340	19340	17060	15200	17190	15645
15119	19220	15341	19341	17061	15201	20000	16001
15120	19221	15342	19323	17063	15202	20001	16002
15121	19004	15343	19360	17070	15250	20002	16003
15122	19222	15344	19361	17071	15251	20020	16200
15200	12350	15345	19362	17080	15300	20021	16100
15201	12351	15346	19363	17081	15301	20022	16201
15202	12352	15360	19380	17082	15302	20023	16202
15203	12353	15361	19381	17083	15303	20024	16203
15204	12354	15362	19382	17084	15304	20050	16400
15205	12355	15363	19370	17085	15305	20051	16401
15206	12356	15364	19383	17086	15306	20052	16402
15207	12357	15365	19371	17087	15307	20053	16403
15209	14112	15367	19384	17088	15308	20080	16500
15210	14113	15368	19385	17089	15309	20081	16501
15220	14270	15369	19386	17090	15310	20082	16502
15221	14271	17000	15050	17091	15311	20083	16600
15222	14272	17001	15051	17100	15350	20084	16601
15223	14273	17002	15052	17101	15351	20085	16602
15224	14274	17003	15053	17102	15352	20086	16603
15225	14275	17004	15054	17103	15353	20087	16703
15226	14276	17005	15055	17110	15452	20088	16503
15227	14277	17006	15056	17111	15400	20089	16600
15240	14420	17007	15057	17112	15401	20110	16700
15241	14421	17008	15058	17113	15402	20111	16701
15242	14422	17009	15059	17120	15500	20112	16800
15243	14423	17010	15060	17121	15501	20113	16801
15260	15260	17011	15061	17122	15502	20114	16802
15261	15261	17012	15062	17123	15504	20115	16900
15262	15262	17013	15063	17124	15505	20116	16702
15263	15263	17014	15064	17130	15550	20300	16101
15264	15264	17020	15080	17134	15551	20301	16420
15265	15265	17021	15081	17136	15552	20302	16404
15266	15266	17022	15082	17140	15600	20303	16421
15267	15267	17024	15083	17150	15610	20304	16300
15268	15268	17025	15084	17160	15620	20305	16803
15269	15269	17026	15085	17160.5	15621	20330	16440
15270	15270	17030	15100	17161	15622	20331	16441
15271	15271	17031	15101	17162	15623	20332	16442
15272	15272	17032	15102	17163	15624	20333	16443
15272.5	15273	17033	15103	17164	15625	20334	16444
15273	15274	17040	15120	17165	15626	20335	16520
15274	15275	17041	15121	17166	15627	20336	16521
15275	15276	17042	15122	17167	15628	20337	16620
15276	15277	17050	12107	17168	15629	20338	16720
15300	19300	17052	15150	17169	15630	20339	16920
15301	19301	17053	15151	17170	15631	20360	16460
15302	19302	17054	15152	17171	15632	20361	16461
15303	19303	17055	15153	17172	15633	20362	16462
15304	19304	17056	15154	17173	15634	20363	16463
15320	19320	17057	15155	17180	15640	20364	16464

1995

496

Old	New	Old	New	Old	New	Old	New
20365	16540	22840.5	10225	23506	10505	23549	10546
20366	16465	22841	10226	23507	10506	23550	10547
20367	16466	22842	10227	23508	10507	23551	10548
20368	16467	22843	10228	23509	1304	23552	10549
20369	16640	22843.5	10229	23509.1	4106	23553	10550
20370	16641	22900	10240	23509.2	4107	23554	10551
20371	16642	22902	10241	23509.5	1501	23554.5	10552
20372	16643	22903	10242	23510	10508	23555	10553
20373	16740	22904	10243	23510.5	10509	23556	10554
20374	16940	22905	10244	23511	12115	23557	10555
20375	16741	22906	10245	23511.1	4108	23557.5	1502
20376	16742	22907	10246	23511.2	4104	23558	10556
20500	15650	22932.5	10263	23511.3	4105	24000	10600
20501	15651	22933	10264	23511.4	4003	24001	10601
20502	15652	22934	10265	23512	10510	24002	10602
20502.5	15653	22935	10266	23512.1210513		24003	12118
20503	15654	23100	10300	23512.2	10511	24004	13121
20530	15670	23101	10301	23512.6	10512	24005	10603
20531	15671	23102	10302	23513	10514	25000	324
20532	15672	23103	10303	23520	10515	25001	10720
20533	15673	23104	10304	23521	12116	25003	8700
22000	10000	23105	10305	23521.5	10516	25050	15503
22002	10001	23106	10306	23523	10517	25100	6900
22003	10002	23107	10307	23523.5	10518	25100.5	6901
22004	10003	23108	10308	23523.7	10519	25101	6902
22005	10004	23109	10309	23524	10520	25102	6903
22030	12241	23110	10310	23525	10521	25103	6904
22050	12322	23111	10311	23526	10522	25104	6905
22051	12323	23112	10312	23526.5	10523	25105	6906
22052	12324	23300	10400	23527	10524	25106	6907
22600	10100	23301	10401	23527.5	10525	25107	6908
22601	10101	23301.5	10402	23528	12286	25108	6909
22602	10102	23302	10403	23529	10526	25300	8200
22603	10103	23302.1	10404	23529.5	10527	25301	8023
22800	342	23302.3	10406	23530	10528	25302	8201
22801	12108	23302.5	10407	23530.5	10529	25303	8202
22802	12328	23303	10408	23531	10530	25304	8203
22804	12329	23304	10409	23531.5	10531	25305	8204
22805	12330	23305	10410	23532	10532	25306	8205
22806	10200	23306	10411	23533	10533	25331	8221
22807	10201	23307	10412	23534	10534	25332	8222
22808	10202	23308	10413	23535	10535	25333	8223
22830	12109	23309	10414	23536	10536	25334	8224
22831	12110	23310	10415	23537	10537	25335	8225
22832	12111	23311	10416	23538	10538	25336	8226
22833	12112	23312	10417	23539	10539	25337	8227
22834	12113	23314	10418	23540	12117	25338	8228
22835	12114	23500	10509	23540.5	10540	25500	8202
22836	10220	23501	10501	23541	10541	27001	11001
22837	10221	23502	10502	23541.5	10542	27001	11001
22838	10222	23502.5	10503	23543	10543	27002	11002
22839	10223	23503	10504	23544	10544	27003	11003
22840	10224	23504	10504	23547	10545	27004	3322



## Disposition Table—1976 Code

New	Old	New	Old	New	Old	New	Old
1.	2	322.	1100	1100.	2520	2115.	311.5
2.	3	27004.	1200.	1200.	2550	2116.	311.6
3.	4	323.	1301	1201.	2551	2117.	312
4.	5	324.	20	1201.	2551	2118.	313
5.	6	25000	1202.	2552	2119.	315	
6.	7	325.	30	1202.	2552	2120.	316
7.	8	326.	29	1300.	2600	2121.	318
8.	9	327.	28	1301.	2601	2122.	319
9.	47	328.	25	1302.	2602	2123.	320
10.	55	329.	38	1303.	2603	2130.	327
11.	58	330.	17	1304.	23509	2135.	400
12.	49	331.	1126	1400.	2650	2136.	401
13.	52	332.	27004	1500.	2604	2137.	402
14.	50	333.	6489	1501.	23509.5	2138.	403
15.	60	334.	37	1502.	23557.5	2139.	404
16.	1177	335.	12	2000.	100	2140.	405
100.	41	336.	3513	2020.	201	2141.	406
101.	41.5	337.	36	2021.	202	2142.	407
102.	42	338.	35	2022.	203	2143.	408
103.	43	339.	39	2023.	204	2150.	500
104.	44	340.	22	2024.	205	2151.	501
105.	45	340.	22	2025.	206	2152.	502
106.	53	341.	21	2026.	206.5	2153.	503
200.	70	342.	29710	2027.	207	2154.	503.5
201.	75	343.	29711	2028.	208	2155.	504
300.	1000	344.	10332	2029.	209	2156.	505
301.	10330		15005	2030.	210	2157.	506
302.	10331	345.	10332	2031.	211	2158.	507
303.	10330	346.	214	2032.	212	2159.	507.5
304.	12511	347.	16	2033.	215	2160.	508
305.	604.5	348.	26	2034.	216	2161.	509
	12300.1	349.	200	2035.	217	2162.	509.1
	12512	350.	5320	2050.	225	2163.	509.3
306.	5010	351.	32	2051.	226	2164.	510
307.	14	352.	31	2052.	227	2165.	511
308.	5151.5	353.	8	2053.	228	2166.	511.5
309.	12300.1	354.	11	2100.	300	2167.	512
310.	10	355.	15006	2101.	300.5	2180.	600
311.	13	356.	27	2102.	301	2181.	601
312.	3780	357.	24	2103.	302	2182.	602
313.	34	358.	15010	2104.	303	2183.	603
314.	33	359.	18	2105.	304	2184.	604
315.	15003	360.	15007	2106.	304.5	2185.	605
316.	23	361.	15008	2107.	305	2186.	606
316.	23	362.	15009	2108.	306	2187.	607
317.	5151	1000.	2500	2109.	307	2188.	608
318.	19	1000.	2500	2110.	308	2189.	609
319.	40	1001.	2501	2111.	309	2190.	611
320.	15	1001.	2501	2112.	309.5	2191.	611.1
	15004	1002.	2502	2113.	310	2192.	612
321.	17	1003.	2503	2114.	311	2193.	613

499

1995

New	Old	New	Old	New	Old	New	Old
2194.	615	3103.	1202.1	4107.	23509.2	6121.	6341
2200.	700	3104.	1202.3	4108.	23511.1	6122.	6342
2201.	701	3105.	1203	5000.	9950	6122.	6342
2202.	702	3106.	1204	5001.	9951	6123.	6343
2203.	703	3107.	1205	5002.	9952	6140.	6345
2204.	703.5	3108.	1206	5003.	9953	6141.	6346
2205.	704	3109.	1206.3	5004.	9954	6142.	6347
2206.	704.5	3110.	1206.5	5005.	9955	6143.	6348
2207.	705	3111.	1207	5006.	9956	6144.	6349
2208.	707.5	3112.	1208	5100.	6430	6145.	6350
2209.	707.6	3200.	1450	5101.	6430.5	6146.	6351
2210.	707.7	3201.	1451	5102.	6431	6160.	6355
2211.	707.8	3202.	1452	5200.	6432	6180.	6360
2212.	708	3203.	1453	6000.	6300	6180.	6360
2213.	709	3204.	1454	6001.	6301	6181.	6361.5
2220.	800	3205.	1455	6002.	6303	6200.	6365
2221.	800.1	3206.	1456	6003.	6303.1	6201.	6365.5
2222.	800.2	3300.	1300	6004.	6303.2	6202.	6366
2223.	800.3	3301.	1302	6005.	6303.3	6203.	6367
2224.	801	3302.	1303	6020.	6305	6204.	6368
2225.	802	3303.	1304	6020.	6305	6220.	6370
2226.	803	3304.	1304.5	6021.	6305.1	6221.	6371
2227.	804	3305.	1305	6022.	6305.2	6222.	6372
2228.	805	3306.	1305.5	6023.	6306	6240.	6375
2240.	825	3307.	1306	6024.	6307	6241.	6376
2241.	826	3308.	1307	6040.	6310	6300.	6000
3000.	1001	3309.	1308	6041.	6311	6301.	6002
3001.	1002	3310.	1309	6041.	6311	6320.	6005
3002.	1002.5	3311.	1310	6042.	6312	6320.	6005
3003.	1003	3400.	1101	6043.	6313	6321.	6006
3004.	1004	3401.	1101.5	6060.	6315	6322.	6007
3005.	1005	3402.	1102	6061.	6316	6323.	6008
3006.	1006	3403.	1103	6061.	6316	6323.	6008
3007.	1006.1	3404.	1104	6080.	6325	6340.	6010
3008.	1006.3	3405.	1105	6081.	6326	6340.	6010
3009.	1007	3406.	1106	6082.	6327	6341.	6011
3010.	1008	3407.	1107	6083.	6328	6342.	6012
3011.	1009	3408.	1109	6084.	6328.3	6343.	6013
3012.	1009.5	3500.	1127	6084.	6328.3	6343.	6013
3013.	1010	3501.	1128	6085.	6328.5	6360.	6021
3014.	1011	3502.	1129	6086.	6329	6361.	6024
3015.	1012	3503.	1130	6086.	6329	6362.	6025
3016.	1012.5	4000.	1340	6087.	6329.5	6363.	6026
3017.	1013	4001.	1340.5	6100.	6330	6364.	6027
3018.	1014	4002.	1341	6101.	6331	6365.	6028
3019.	1015	4003.	23511.4	6102.	6332	6380.	6030
3020.	1016	4100.	1350	6103.	6333	6381.	6031
3021.	1017	4101.	1351	6104.	6334	6382.	6032
3022.	1018	4102.	1352	6105.	6335	6383.	6033
3023.	1019	4103.	1353	6106.	6336	6400.	6040
3100.	1200	4104.	23511.2	6107.	6337	6401.	6041
3101.	1201	4105.	23511.3	6108.	6338	6402.	6042
3102.	1202	4106.	23509.1	6120.	6340	6403.	6043

1995

500

New	Old	New	Old	New	Old	New	Old
6404.	6044	6594.	6154	6785.	6245	7157.	8664
6405.	6045	6595.	6155	6786.	6246	7158.	8665
6406.	6046	6596.	6156	6787.	6247	7159.	8666
6420.	6055	6597.	6157	6788.	6248	7160.	8667
6421.	6056	6598.	6158	6789.	6249	7161.	8668
6422.	6057	6599.	6159	6790.	6250	7162.	8669
6440.	6060	6620.	6170	6791.	6251	7163.	8670
6441.	6061	6621.	6171	6792.	6252	7164.	8671
6442.	6062	6640.	6190	6793.	6253	7165.	8672
6443.	6063	6641.	6191	6794.	6254	7166.	8673
6460.	6070	6642.	6193	6795.	6255	7167.	8674
6461.	6071	6643.	6194	6796.	6256	7168.	8675
6480.	6080	6644.	6195	6797.	6257	7169.	8676
6500.	6100	6645.	6196	6798.	6258	7170.	8677
6501.	6102	6646.	6197	6820.	6270	7171.	8678
6502.	6103	6647.	6198	6821.	6271	7180.	8711
6520.	6110	6700.	6200	6822.	6272	7185.	8740
6521.	6111	6701.	6201	6840.	6285	7186.	8740.5
6522.	6112	6702.	6203	6841.	6286	7187.	8741
6523.	6113	6721.	6210.5	6842.	6287	7188.	8744
6523.	6113	6721.	6210.5	6843.	6288	7190.	8770
6524.	6114	6722.	6211	6844.	6289	7191.	8771
6540.	6120	6722.	6211	6845.	6290	7192.	8772
6540.	6120	6723.	6212	6846.	6291	7193.	8773
6541.	6121	6724.	6213	6847.	6292	7194.	8774
6542.	6122	6725.	6214	6848.	6293	7195.	8775
6543.	6123	6725.	6214	6849.	6294	7196.	8776
6543.	6123	6726.	6215	6900.	25100.5	7197.	8777
6560.	6130	6740.	6220	6901.	25101	7198.	8778
6561.	6131	6740.	6220	6902.	25101	7200.	8820
6562.	6132	6741.	6221	6903.	25102	7201.	8820.5
6563.	6133	6742.	6222	6904.	25103	7202.	8821
6564.	6134	6742.	6222	6905.	25104	7203.	8822
6565.	6135	6743.	6223	6906.	25105	7204.	8823
6566.	6136	6743.	6223	6907.	25106	7205.	8823.5
6567.	6138	6744.	6224	6908.	25107	7206.	8824
6568.	6139	6745.	6225	6909.	25108	7207.	8825
6569.	6140	6760.	6230	6950.	6360.5	7208.	8826
6580.	6140	6761.	6231	6951.	6260	7209.	8827
6581.	6141	6762.	6232	6952.	6261	7210.	8828
6582.	6142	6763.	6233	6953.	6262	7211.	8829
6583.	6143	6764.	6234	6954.	6263	7212.	8830
6584.	6144	6765.	6235	6955.	6264	7213.	8831
6585.	6145	6766.	6236	7000.	8000	7214.	8832
6586.	6146	6767.	6237	7050.	8500	7215.	8833
6587.	6147	6768.	6238	7100.	8510	7216.	8834
6588.	6148	6769.	6239	7150.	8660	7217.	8835
6589.	6149	6770.	6240	7151.	8660.1	7218.	8836
6590.	6150	6781.	6241	7152.	8660.2	7219.	8837
6591.	6151	6782.	6242	7153.	8660.3	7220.	8838
6592.	6152	6783.	6243	7154.	8661	7221.	8839
6593.	6153	6784.	6244	7155.	8662	7222.	8840
				7156.	8663	7223.	8841

501

1995



New	Old	New	Old	New	Old	New	Old	New	Old	New	Old	New	Old	New	Old	New	Old
7883.	9853	8145.	6615	8651.	7311	9063.	3562	9142.	3751.7	9244.	4058	9340.	5200	10242.	22903		
7884.	9854	8146.	6616	8652.	7312	9064.	3563	9143.	3752	9245.	4059	9341.	5200.1	10243.	22904		
8000.	6400	8147.	6617	8653.	7313	9065.	3564	9144.	3753	9246.	4060	9342.	5201	10260.	22930		
8001.	6401	8148.	6618	8700.	25003	9066.	3564.1	9145.	3754	9247.	4061	9360.	5210	10261.	22930.5		
8002.	6401.5	8149.	6619	8801.	6650	9067.	3565	9146.	3755	9255.	4080	9380.	5215	10262.	22932		
8003.	6402	8150.	6620	8802.	6651.5	9068.	3566	9147.	3755.5	9256.	4081	9400.	5300	10263.	22932.5		
8020.	6490	8200.	25300	8803.	6652	9069.	3567	9160.	3781	9257.	4082	9401.	5301	10264.	22933		
8021.	6509	8201.	25302	8803.	6653	9080.	3567.5	9161.	3782	9258.	4083	9402.	5302	10265.	22934		
8022.	25500	8202.	25303	8804.	6653.3	9081.	3568	9162.	3783	9259.	4084	9403.	5303	10266.	22935		
8023.	25301	8203.	25304	8805.	6654	9082.	3569	9163.	3784	9260.	4085	9404.	5304	10300.	23100		
8024.	6490.1	8204.	25305	8806.	6655	9083.	3569.5	9164.	3785	9261.	4086	9405.	5305	10301.	23101		
8025.	6490.2	8220.	25330	8807.	6656	9084.	3570	9165.	3785.1	9262.	4087	9500.	5321	10302.	23102		
8026.	6490.3	8221.	25331	8808.	6657	9085.	3570.5	9166.	3786	9263.	4088	9501.	5322	10303.	23103		
8027.	6490.4	8222.	25332	8809.	6658	9086.	3571	9167.	3787	9264.	4089	9502.	5323	10304.	23104		
8028.	6490.5	8223.	25333	8810.	6659	9087.	3572	9168.	3788	9265.	4090	9503.	5324	10305.	23105		
8040.	6491	8224.	25334	8811.	6660	9088.	3572.5	9180.	3790	9266.	4091	9504.	5325	10306.	23106		
8041.	6494	8225.	25335	9000.	3500	9089.	3573	9180.	3790	9267.	4093	9505.	5326	10307.	23107		
8042.	6498	8226.	25336	9001.	3501	9090.	3574	9201.	4001	9268.	4094	9506.	5327	10308.	23108		
8060.	6493	8227.	25337	9002.	3502	9091.	3575	9202.	4002	9269.	4095	9507.	5328	10309.	23109		
8061.	6494.1	8228.	25338	9003.	3502.05	9092.	3576	9203.	4002.5	9281.	5012	9508.	5329	10310.	23110		
8062.	6495	8300.	6800	9004.	3503	9093.	3577	9204.	4002.7	9282.	5013	9600.	5350	10312.	23112		
8063.	6496	8301.	6801	9005.	3504	9094.	3578	9205.	4003	9283.	5014	9601.	5351	10400.	23300		
8064.	6496.5	8302.	6802	9006.	3505	9095.	3578.5	9206.	4004	9284.	5014.1	9602.	5352	10401.	23301		
8065.	6497	8303.	6803	9007.	3506	9096.	3579	9207.	4005	9285.	5014.5	9603.	5353	10402.	23301.5		
8066.	6499	8304.	6804	9008.	3507	9097.	3580	9208.	4006	9286.	5015	9604.	5354	10403.	23302		
8067.	6500	8400.	6831	9009.	3508	9101.	3701	9209.	4007	9287.	5016	9605.	5355	10404.	23302.1		
8068.	6501	8401.	6831.1	9010.	3509	9102.	3701.5	9210.	4008	9290.	5020	9606.	5357	10405.	14009		
8069.	6502	8402.	6832	9011.	3510	9103.	3702	9211.	4009	9295.	5025	9607.	5358	10406.	23302.3		
8070.	6505	8403.	6833	9012.	3511	9104.	3702.1	9212.	4009.5	9300.	5150	10000.	22000	10407.	23302.5		
8080.	6504	8404.	6834	9013.	3514	9105.	3702.5	9213.	4009.6	9301.	5152	10001.	22002	10408.	23303		
8081.	6506	8405.	6834.1	9014.	3515	9106.	3702.7	9214.	4010	9302.	5152.1	10002.	22003	10409.	23304		
8082.	6507	8406.	6835	9015.	3515.1	9107.	3703	9215.	4011	9303.	5152.2	10003.	22004	10410.	23305		
8083.	6508	8407.	6836	9020.	3516	9108.	3704	9216.	4012	9304.	5152.3	10004.	22005	10411.	23306		
8084.	6555.5	8408.	6837	9021.	3517	9109.	3704.5	9217.	4013	9305.	5152.4	10100.	22600	10412.	23307		
8100.	6550	8409.	6838	9022.	3519	9110.	3705	9218.	4014	9306.	5152.5	10101.	22601	10413.	23308		
8101.	6551	8450.	6860	9030.	3520	9111.	3705.5	9219.	4015	9307.	5152.6	10102.	22602	10414.	23309		
8102.	6503	8451.	6861	9031.	3521	9112.	3705.6	9220.	4015.5	9308.	5153	10103.	22603	10415.	23310		
8103.	6552	8452.	6862	9032.	3522	9113.	3706	9221.	4016	9309.	5153.5	10200.	22806	10416.	23311		
8104.	6553	8453.	6863	9033.	3523	9114.	3707	9222.	4017	9310.	5154	10201.	22807	10417.	23312		
8105.	6554	8454.	6864	9034.	3523.1	9115.	3708	9223.	4018	9311.	5154.3	10202.	22808	10418.	23314		
8106.	6555	8500.	6890	9035.	3524	9116.	3709	9224.	4019	9312.	5156	10220.	22836	10500.	23500		
8107.	6556	8501.	6891	9040.	3525	9117.	3710	9225.	4020	9313.	5156.5	10221.	22837	10501.	23501		
8120.	6580.5	8502.	6892	9041.	3526	9118.	3711	9226.	4021	9314.	5156.6	10222.	22838	10502.	23502		
8121.	6580.5	8503.	6893	9042.	3527	9119.	3713	9235.	4050	9315.	5157	10223.	22839	10503.	23502.5		
8122.	6581	8504.	6894	9043.	3528	9120.	3714	9236.	4050.1	9316.	5157.2	10224.	22840	10504.	23504		
8123.	6582	8550.	6920	9044.	3529	9121.	3715	9237.	4051	9317.	5157.5	10225.	22840.5	10505.	23506		
8124.	6583	8600.	7300	9050.	3530	9122.	3716	9238.	4052	9318.	5157.6	10226.	22841	10506.	23507		
8125.	6584	8601.	7301	9051.	3531	9123.	3717	9239.	4053	9319.	5158	10227.	22842	10507.	23508		
8140.	6611	8602.	7302	9052.	3532	9124.	3718	9240.	4054	9320.	5159	10228.	22843	10508.	23510		
8141.	6612	8603.	7303	9053.	3533	9125.	3719	9241.	4055	9321.	5160	10229.	22843.5	10509.	23510.5		
8142.	6613	8604.	7304	9060.	3559	9126.	3720	9242.	4056	9322.	5161	10240.	22900	10510.	23512		
8143.	6614	8605.	6661	9061.	3560	9140.	3750	9243.	4057	9323.	5162	10241.	22902	10511.	23512.2		
8144.	6614.5	8650.	7310	9062.	3561	9141.	3751										

503

1995

1995

504

New	Old	New	Old	New	Old	New	Old	New	Old	New	Old	New	Old	New	Old	New	Old
10512.	23512.6	10704.	7201	11325.	27316	12262.	1513.1	13005.	10002.5	13244.	10324	14109.	14006	14282.	14234		
10513.	23512.12	10705.	7202	11326.	27316.1	12280.	1638.5	13006.	10003	13245.	10325	14110.	14007	14283.	14236		
10514.	23513	10706.	7203	11327.	27317	12281.	1650	13007.	10004	13246.	10326	14111.	14008	14284.	14237		
10515.	23520	10707.	7204	11328.	27320	12282.	1504.5	13100.	10200	13247.	10327	14112.	15209	14285.	14239		
10516.	23521.5	10720.	25001	11329.	27321	12283.	1504	13101.	10016	13260.	10333	14113.	15210	14286.	14240		
10517.	23523	11000.	27000	11360.	27330	12284.	1504.6	13102.	10200.5	13261.	10334	14200.	14202	14287.	14241		
10518.	23523.5	11001.	27001	11361.	27331	12285.	1638.7	13103.	10201	13262.	10335	14201.	14203	14288.	14242		
10519.	23523.7	11002.	27002	11362.	27332	12286.	23528	13104.	10209	13263.	10336	14202.	14204	14289.	14247		
10520.	23524	11003.	27003	11363.	27333	12287.	1637.5	13105.	10210	13264.	10337	14203.	14205.5	14290.	14243		
10521.	23525	11004.	27005	11364.	27334	12288.	1638	13106.	10210.5	13265.	10338	14210.	14206	14291.	14244		
10522.	23526	11005.	27006	11380.	27340	12289.	1639	13107.	10211	13266.	10339	14211.	14207	14292.	14245		
10523.	23526.5	11006.	27007	11381.	27341	12290.	1639.5	13108.	10212	13267.	10340	14212.	14208	14293.	14246		
10524.	23527	11007.	27008	11382.	27342	12291.	1640	13109.	10213	13280.	10301	14213.	14209	14294.	14247		
10525.	23527.5	11008.	27009	11383.	27343	12292.	1640.5	13110.	10214	13281.	10302	14214.	14210	14295.	14248		
10526.	23529	11021.	27021	11384.	27344	12293.	1641	13111.	10215	13282.	10302.5	14215.	14211	14296.	14250		
10527.	23529.5	11022.	27022	11385.	27345	12294.	1641.5	13112.	10217	13283.	10303	14216.	14212	14297.	14251		
10528.	23530	11023.	27023	11386.	27346	12295.	1642	13113.	10217.5	13284.	10304	14217.	14213	14298.	14252		
10529.	23530.5	11024.	27024	12000.	2553	12309.	1640	13114.	10217.7	13285.	10305	14218.	14214	14299.	14253		
10530.	23531	11040.	27030	12001.	2653	12310.	1653	13115.	10218	13286.	10306	14219.	14215	14300.	14254		
10531.	23531.5	11041.	27031	12002.	2653.5	12311.	1654	13116.	10219	13287.	10307	14220.	14215	14301.	14255		
10532.	23532	11042.	27031.5	12001.	2653	12312.	1655	13117.	10219.5	13288.	10308	14221.	14216	14302.	14256		
10533.	23533	11043.	27032	12002.	2653.5	12313.	1656	13118.	10220	13289.	10309	14222.	14217	14303.	14257		
10534.	23534	11044.	27033	12003.	2654	12314.	1657	13119.	10220.5	13290.	10310	14223.	14218	14304.	14258		
10535.	23535	11045.	27034	12004.	2654.5	12315.	1658	13120.	10221	13291.	10311	14224.	14219	14305.	14259		
10536.	23536	11046.	27035	12005.	2655	12316.	1659	13121.	10221.5	13292.	10312	14225.	14220	14306.	14260		
10537.	23537	11047.	27037	12006.	1643.3	12317.	1646	13200.	10006	13303.	10010	14226.	14403	14404.	14303		
10538.	23538	11100.	27100	12107.	17050	12318.	1646.3	13201.	10232	13304.	10010.2	14227.	14405	14405.	14305		
10539.	23539	11101.	27101	12108.	22801	12319.	1645	13202.	10215	13305.	10010.5	14240.	14216	14406.	14306		
10540.	23540.5	11102.	27102	12109.	22830	12320.	1636	13203.	10203	13306.	10011	14241.	14217	14420.	15240		
10541.	23541	11103.	27103	12110.	22831	12321.	1637	13204.	10204	13307.	10012	14242.	14218	14421.	15241		
10542.	23542	11104.	27104	12111.	22832	12322.	22050	13205.	10205	13308.	10012.1	14243.	14219	14422.	15242		
10543.	23543	11105.	27105	12112.	22833	12323.	22051	13206.	10206	13309.	10012.3	14244.	14220	14423.	15243		
10544.	23544	11201.	27201	12113.	22834	12324.	22052	13207.	10207	13310.	10012.5	14245.	14221	15000.	14400		
10545.	23547	11220.	27210	12114.	22835	12325.	1515	13208.	10208	13311.	10012.7	14246.	14222	15001.	1401		
10546.	23549	11221.	27211	12115.	23511	12326.	1638	13209.	10208.5	13312.	10013	14247.	14223	15002.	1402		
10547.	23550	11222.	27212	12116.	23521	12327.	1648	13210.	10220	13313.	10013.5	14248.	14224	15003.	1403		
10548.	23551	11223.	27213	12117.	23540	12328.	22802	13211.	10221	13314.	10015	14249.	14225	15004.	1404		
10549.	23552	11224.	27214	12118.	24003	12329.	22804	13212.	10222	13315.	10015.5	14250.	14226	15005.	1405		
10550.	23553	11225.	27215	12119.	24004	12330.	22805	13213.	10223	13316.	10307.5	14251.	14227	15006.	1407		
10551.	23554	11226.	27216	12120.	24005	12331.	22806	13214.	10224	13317.	10324.5	14252.	14228	15007.	1408		
10552.	23554.5	11227.	27217	12121.	24006	12332.	22807	13215.	10225	14000.	14350	14253.	14229	15008.	1409		
10553.	23555	11228.	27218	12122.	24007	12333.	22808	13216.	10226	14001.	14351	14270.	15220	15009.	1409.5		
10554.	23556	11241.	27230.5	12123.	24008	12334.	22809	13217.	10227	14002.	14352	14271.	15221	15010.	1410		
10555.	23557	11242.	27231	12124.	24009	12335.	22810	13218.	10228	14003.	14353	14272.	15222	15011.	1411		
10556.	23558	11300.	27301	12225.	1501	12355.	15205	13219.	10229	14004.	14354	14273.	15223	15012.	17000		
10600.	24001	11301.	27302	12226.	1506	12356.	15206	13220.	10230	14005.	14355	14274.	15224	15013.	17001		
10601.	24001	11302.	27303	12227.	1509	12357.	15207	13221.	10231	14006.	14356	14275.	15225	15014.	17002		
10602.	24002	11303.	27304	12228.	1507	13000.	10005	13222.	10230.1	14007.	14357	14276.	15226	15015.	17003		
10603.	24003	11304.	27305	12229.	1507	13001.	10006	13223.	10231	14008.	14358	14277.	15227	15016.	17004		
10700.	2651	11321.	27311	12240.	1508.5	13001.	10000	13240.	10320	14105.	14005	14278.	14230	15055.	17005		
10701.	2652	11322.	27312	12241.	22030	13002.	10001	13241.	10321	14106.	14005.4	14279.	14231	15056.	17006		
10702.	7200	11323.	27313	12260.	1503	13003.	10001.5	13242.	10322	14107.	14005.5	14280.	14232	15057.	17007		
10703.	7200.5	11324.	27315	12261.	1514	13004.	10002	13243.	10323	14108.	14005.6	14281.	14233	15058.	17008		

					New	Old	New	Old	New	Old
15059. 17009	15303. 17083	15650. 20500	16641. 20370		18203. 29303	29650	19207. 15115	20203. 12303		
15060. 17010	15304. 17084	15651. 20501	16642. 20371		18204. 29304	18571. 29651	19208. 15116	20300. 12400		
15061. 17011	15305. 17085	15652. 20502	16643. 20372		18205. 29305	18572. 29652	19209. 15117	20301. 12401		
15062. 17012	15306. 17086	15653. 20502.5	16700. 20110		18300. 29413	18573. 29653	19210. 15023	20400. 12500		
15063. 17013	15307. 17087	15654. 20503			18301. 29414	18574. 29654	19211. 15024	20420. 12510		
15064. 17014	15308. 17088	15670. 20530	16702. 20116		18302. 29415	18575. 29655	19212. 15026			
15080. 17020	15309. 17089	15671. 20531	16703. 20087		18303. 29416	18576. 29656	19213. 15118	20440. 12520		
15081. 17021	15310. 17090	15672. 20532	16720. 20338		18310. 29420	18577. 29657	19220. 15119	20441. 12522		
15082. 17022	15311. 17091	15673. 20533	16740. 20373		18311. 29421	18578. 29658	19221. 15120	20442. 12523		
15083. 17024	15350. 17100	16000. 20089	16741. 20375		18320. 29430	18600. 29720	19222. 15122	20443. 12524		
15084. 17025	15351. 17101	16001. 20090	16742. 20376		18340. 29440	18601. 29721	19300. 15300	20444. 12525		
15085. 17026	15352. 17102	16002. 20091	16800. 20112		18350. 29450	18602. 29722	19301. 15301	20500. 12527		
15100. 17030	15353. 17103	16003. 20092	16801. 20113		18351. 29451	18603. 29723	19302. 15302	20501. 12528		
15101. 17031	15400. 17111	16100. 20021	16802. 20114		18360. 29460	18610. 29730	19303. 15303	20502. 12530		
15102. 17032	15401. 17112	16101. 20030	16803. 20305		18361. 29462	18611. 29731	19304. 15304	21000. 51		
15103. 17033	15402. 17113	16200. 20020	16900. 20115		18370. 29470	18612. 29732	19320. 15320	21001. 30000		
15120. 17040	15480. 54	16201. 20022	16920. 20339		18371. 29471	18613. 29733	19321. 15321	21002. 30001		
15121. 17041	15451. 6610	16202. 20023	16940. 20374		18380. 29480	18614. 29734	19322. 15322	21003. 30010		
15122. 17042	15452. 17110	16203. 20024	17000. 14500		18390. 29490	18620. 29740	19323. 15342	21101. 30011		
15150. 17052	15460. 8874	16300. 20304	17001. 14510		18400. 29500	18621. 29741	19340. 15340	21200. 30020		
15151. 17053	15470. 9374	16400. 20050	17100. 14600		18401. 29501	18622. 29742	19341. 15341	21201. 30020.5		
15152. 17054	15480. 9724	16401. 20051	17200. 14700		18402. 29505	18630. 29750	19360. 15343	21202. 30021		
15153. 17055	15490. 9783	16402. 20052	17300. 14800		18403. 29506	18631. 29751	19361. 15344	21203. 30022		
15154. 17056	15500. 17120	16403. 20053	17301. 14810		18500. 29610	18640. 29760	19362. 15345	21300. 30030		
15155. 17057	15501. 17121	16404. 20302	17302. 14811		18501. 29611	18650. 29770	19363. 15346	21301. 30031		
15156. 17058	15502. 17122	20301	17303. 14820		18502. 29612	18660. 29780	19370. 15363	21302. 30032		
15157. 17059	15503. 20500	16421. 20303	17304. 14821		18520. 29620	18661. 29781	19371. 15365	21400. 30040		
15200. 17060	15504. 17123	16440. 20330	17305. 14830		18521. 29621	18670. 29790	19380. 15366	21401. 30041		
15201. 17061	15505. 17124	16441. 20331	17306. 14831		18522. 29622	18671. 29791	19381. 15361	21402. 30042		
15202. 17063	15550. 17130	16442. 20332	17400. 14900		18523. 29623	18680. 29795	19382. 15362	21403. 30043		
15250. 17070	15551. 17134	16443. 20333	17500. 14950		18524. 29624	18700. 29800	19383. 15364	21404. 30044		
15251. 17071	15552. 17136	16444. 20334	17501. 14960		18540. 29630	19000. 15000	19384. 15367	21500. 35000		
15260. 15260	15600. 17140	16460. 20360	17502. 14970		18541. 29630.5	19001. 15020	19385. 15368	21501. 35001		
15261. 15261	15610. 17150	16461. 20361	17503. 14971		18542. 29631	19002. 15021	19386. 15369	21502. 35002		
15262. 15262	15620. 17160	16462. 20362	17504. 14980		18543. 29632	19003. 15022	20000. 11700	21503. 35003		
15263. 15263	15621. 17160.5	16463. 20363	17505. 14981		18544. 29634	19004. 15121	20001. 11701	21504. 35004		
15264. 15264	15622. 17161	16464. 20364	17506. 14990		18545. 29635	19005. 15025	20002. 11702	21505. 35005		
15265. 15265	15623. 17162	16465. 20365	18000. 29100		18546. 29636	19100. 15100	20003. 11703	21506. 35006		
15266. 15266	15624. 17163	16466. 20367	18001. 29101		18560. 29640	19101. 15102	20004. 11704	21600. 35100		
15267. 15267	15625. 17164	16467. 20368	18002. 29102		18561. 29641	19102. 15103	20005. 11705	21601. 35101		
15268. 15268	15626. 17165	16500. 20080	18100. 29200		18562. 29643	19103. 15105	20006. 11706	21602. 35102		
15269. 15269	15627. 17166	16501. 20081	18101. 29200.5		18563. 29644	19200. 15110	20007. 11707	21603. 35103		
15270. 15270	15628. 17167	16502. 20082	18102. 29201		18564. 29645	19201. 15111	20008. 11708	21604. 35104		
15271. 15271	15629. 17168	16503. 20088	18103. 29202		18565. 29645.1	19202. 15112	20009. 11709	21605. 35105		
15272. 15272	15630. 17169	16520. 20335	18104. 29203		18566. 29646	19203. 15101	20100. 12200	21606. 35106		
15273. 15272.5	15631. 17170	16521. 20336	18105. 29203.7		18567. 29647	19204. 15104	20200. 12300	21620. 35150		
15274. 15273	15632. 17171	16540. 20365	18106. 29204		18568. 29648	19205. 15113	20201. 12301			
15275. 15274	15633. 17172	16600. 20083	18107. 29205		18569. 29649	19206. 15114	20202. 12302			
15276. 15275	15634. 17173	16601. 20084	18108. 29206							
15277. 15276	15640. 17180	16602. 20085	18109. 29207							
15300. 17080	15641. 17182	16603. 20086	18200. 29300							
15301. 17081	15642. 17183	16620. 20337	18201. 29301							
15302. 17082	15645. 17190	16640. 20369	18202. 29302							

507

1995

1995

508

# Appendix D: Study Process

In this project, we combined expert knowledge from election practitioners and academic experts. We conducted site visits, reviewed county documents, interviewed county staff, surveyed election officials across California, and reviewed state law, court cases, and best practices standards for the field. The section below details the exact process used in this study to arrive at our conclusions and formulate our recommendations.

After the RFP was approved by the county and all consultants signed independent consultant agreements, we hosted a kickoff meeting with the internal team to discuss goals, assignments, preliminary questions for the county, a tentative timeline for the project based on the RFP, and a draft outline of the report for the team to review. We then scheduled a kickoff meeting with the consulting team and the county staff for introductions and a project overview.

After the kickoff meeting with the county, we scheduled a follow up meeting to walk through the current billing methodology employed by the county as well as a date for an in-person site visit. We set up two shared folders in Box for the county to upload relevant documentation and for the consulting team to begin organizing the internal documents. The consulting team reviewed and analyzed the documents uploaded by the county and created a list of questions to ask the county in the next meeting. In this review, consultants checked logic and consistency of the various billing spreadsheets and financial documents, verified the activities and costs incurred matched required activities necessary to conduct an election in California, compared public facing documentation to internal billing processes, evaluated financial reports for outlying expenditures or unknown vendors, and examined application of the overhead/ICRP/fringe information and rates provided by the county auditor.

The first site visit included a tour of the facilities to inform the billing analysis regarding services and equipment used by the county, discussed the needs of the county and potential recommendations in more depth, and created a new list of questions regarding the billing methodology of the county, including questions that required input from other California counties, which informed an email survey sent to several counties shortly after.

Three surveys were sent via email to Registrars of Voters in other California counties to determine how San Joaquin County billing practices compared to both comparable counties (determined earlier in the project) and to all California counties. The survey sent to the eight comparable counties asked about the counties' current billing methodology and practices. The two surveys sent to all California counties asked about the independent cost rate proposal (ICRP) practices and about billing for Board of Education elections.

We combined information obtained from site visits, document reviews, interviews, and surveys. We then compared the data to look for compliance with state law, match to current best practices, and match to standards of transparency, consistency, accuracy, and efficiency.

For the second site visit, we finalized our proposed recommendations based on the documents review, the first site visit, the survey results, and other research, and prepared agendas for the site visit. During the site visit, we reviewed our proposed recommendations, discussed more difficult recommendations privately with ROV, and clarified contract details about a final presentation to the Board of Supervisors and the inclusion of an Action Plan in the final report.

After the final site visit, we finalized the timeline for the completion of the project and discussed the notes in the draft that needed resolution. We finalized the flowcharts and edited the draft report for consistency. The draft report was closely read and edited by the project lead and project coordinator, and a draft was prepared to share with two expert reviewers. After we received the comments from the expert reviewers, we prepared a final version of the report, incorporating final edits and updating the formatting.

After this final version is shared with the county, we will host a virtual review to discuss any questions or edits from the county staff, after which the final report will be updated and submitted by the November 30, 2024 deadline in preparation for an in-person presentation for the Board of Supervisors, to be scheduled in January 2025.

# Contributors

This is a project of the Election Center. The Election Center is a nonprofit 501(c)(3) tax-exempt organization under the regulations of the Internal Revenue Service. The Election Center's purpose is to promote and support continuous improvement in the administration of elections and voter registration through research, professional education, conferences, networking and consulting. The Election Center is also known as the National Association of Election Officials.

Its members are almost exclusively government employees whose profession it is to serve in voter registration and elections administration, i.e., voter registrars, elections supervisors, elections directors, city clerk/city secretary, county clerk, county recorder, state legislative staff, state election director and Secretary of State for each of the individual states, territories, and the District of Columbia.

Following are the resumes of the Election Center coordinators and consultants who authored this report:

## **Cathy Darling Allen**

*Cathy Darling Allen* is the retired County Clerk and Registrar of Voters for Shasta County, California, serving in this role from 2004- 2024. Cathy graduated from UC Santa Barbara in 1993 and has several years of private sector accounting experience. This combination of interests led to her leading a cost study project with the California Association of Clerks and Election Officials (CACEO). This project was initiated by a grant to CACEO from the James Irvine Foundation, and Cathy managed the procurement, grant execution and vendor compliance beginning in 2014. The project examined both election costs allocation and billing methodologies used by California's 58 counties. Cathy continued until retirement to lead and co-chair the committee within CACEO that facilitates communication and networking among county fiscal staff from all over California in an effort to bring greater standardization and professionalization of billing and cost collection practices.

## **Susan Ranochak**

*Susan (Sue) Ranochak* is the former (retired) Mendocino County Assessor/Recorder/Clerk/ Registrar. Starting out as an Auditor-appraiser in the Mendocino County Assessors' office she eventually worked her way up becoming Assessor Clerk-Recorder, Registrar of Voters for Mendocino County in January of 2008. For the next eleven years, Ms. Ranochak conducted numerous elections

specifically handling the election billing herself. During her tenure as Assessor Clerk-Recorder/Registrar of Voters, Ms. Ranochak was a member of the Board of Directors for the elections officials statewide organization, CACEO. One of Ms. Ranochak's responsibilities was membership on CACEO's election billing project headed by retired Shasta County County Clerk Registrar of Voters Cathy Darling Allen.

### **Zach Mohr, Ph.D.**

*Zach Mohr, Ph.D.*, is an Associate Professor in the School of Public Affairs and Administration at the University of Kansas. He studies and teaches public budgeting, accounting, and financial management. He has produced over thirty peer reviewed articles and books, including *Cost Accounting in Government: Theory and Applications*. He is currently working on finishing a book on the cost of election administration at the local level entitled *A Republic if You Can Afford It: How Much Does It Cost to Administer an Election?* He has provided testimony to the Congressional Committee on House Administration and has actively participated in the Election Science Reform and Administration conference. He is also a leader in behavioral public budgeting and financial management. Before he was an academic, he was a city administrator in Kansas.

### **Mitchell Brown, Ph.D.**

*Mitchell Brown, Ph.D.*, is the Curtis O. Liles III Professor of Political Science at Auburn University, is a founding editor of the Journal of Election Administration Research & Practice, and currently serves as the Director of the Institute for Election Administration Research & Practice. She is widely published, and her work as a researcher, evaluator, trainer and consultant focuses on applied projects around the country centering on election administration and community-based problem solving. She serves on the board of directors of the National Association of Election Officials (the Election Center) and has also held board and leadership positions at the university, in state government, and in non-profit organizations.

### **Lauren Hill, MPA**

*Lauren Hill, MPA* is an executive assistant at the Election Center and helps with coordinating various consulting projects and managing the Certified Election and Registration Administrator (CERA) program. Lauren has worked as a graduate assistant with the Institute for Election Administration Research & Practice at Auburn University and as an intern with the U.S. Election Assistance Commission. Lauren holds a bachelor's in political science from Mississippi State University and a master's in public administration and graduate certificate in election administration from Auburn University.

Below is a list of the election experts who assisted or advised in the development of this report.

- John Baker, Shasta County Elections
- Kim Barrett, Sonoma County
- Julie Bustamonte, Lassen County Clerk-Recorder-Registrar of Voters
- Brad Clark, retired Monterey County, Alameda County, California Secretary of State Elections Division
- Jane Crownover, Marin County Elections
- Linsey Dale, Imperial County Registrar of Voters
- Trinh Dao, County of Santa Clara Registrar of Voters Office
- Francisco Diaz, San Benito County Clerk-Recorder/Registrar of Voters
- Cristy Edwards, Colusa County Clerk-Recorder-Elections-Archives
- Joanna Francescut, Shasta County Elections
- Tommy Gong, Contra Costa County Deputy County Clerk-Recorder
- Vanessa Graeff, Santa Barbara County Elections
- Kathleen Hale, Election Center Executive Director
- Val Handfield, San Diego County Clerk
- Brandon Hill, Fresno County Elections
- Donna Hillegass, Yuba County Clerk/Recorder-Registrar of Voters
- Donna Johnston, Sutter County Clerk/Recorder/Registrar
- Cynthia Kuhr, Merced County Election
- Liliana Lau, San Diego County Elections
- Dean Logan, Los Angeles County Clerk-Recorder-Registrar
- Janice Morrissey, retired Sonoma County Clerk, Registrar-Recorder, Assessor
- Corina Masoni, Los Angeles County Elections
- Cynthia Morrison, El Dorado County Elections
- Bob Page, Orange County, CA Registrar of Voters
- Rita Sanchez, Santa Cruz County Elections
- Danielle M. Sexton, Inyo County Clerk Recorder & Registrar of Voters
- John Tuteur, Registrar of Voters Napa County
- Linda Webster, El Dorado County Elections





403 W Grand Pkwy S Ste. F, #404 Katy, TX 77494 • (281) 396-4309 • [www.electioncenter.org](http://www.electioncenter.org)