The CACEO election cost data offer transparency and insights reflecting reports from county officials on election costs, the components of those costs, the electorates, and voting processes, technologies and systems used in elections spanning 2004 through 2014, including primary, general and special elections. Much of the information was entered retrospectively – as much as much as a decade after the election – and counties varied on the extent to which they identified, differentiated and tracked costs. Nor did all counties participate – although currently 41 counties have provided at least some information on one or more elections.

It comes as no shock that costs vary greatly - Los Angeles spent more than $30 million on its 2014 general election, nearly 4,000 times more than the $7,896 reported by Sierra county – and when comparing individual counties, potential reasons for differences between them abound. Los Angeles is home to nearly 10 million residents, includes 88 distinct cities and towns in its boundaries, serves nearly 5 million registered voters, and counted about 1.5 million votes for more than 300 candidates and measures on ballots printed in 9 languages in addition to English. In contrast, the 3,127 residents of Sierra, which includes only a single incorporated place, reflect 2,232 registered voters, 1,727 of whom voted on the 42 candidates and measures in ballots that were printed in two languages – English and Spanish.

Drawing insights from these data requires careful thought about standardizing measures. Should costs be identified per capita? Per voting age adult? Per registered voter? Per ballot cast? Per “vote opportunity” (the sum of candidates and measures)? Each of these ways of standardizing can serve an analytic intent, but each highlights a different facet of costs. These will be discussed xxx.

Once standardized, a second issue emerges. What categories of factors do we expect to affect costs or cost composition? Size is clearly a factor, but so is jurisdictional complexity – the number of cities and districts that lie within a county and, relatedly, the number of candidates and measures that need to be offered to voters in appropriate jurisdictions. Complexity in the electorate also plays a role: how does the mix of languages relied upon and levels of linguistic isolation, or the extent of residential mobility – which affects the accuracy of voter registration records – shape the process and costs of an election? Counties also face very different costs of living and typical wage rates for their labor forces; these affect the amount spent directly on staff, on non-staff labor, and locally produced services and supplies, and may also influence choices on relying on more or less labor-intensive processes and technologies. Election processes and technologies are also expected to influence the level and composition of costs, depending on choices of paper ballots, DREs, the relative reliance on polling places versus vote by mail ballots, or levels of challenges to ballots.

These categories of factors will be examined in a set of briefs, which will look at how cost and cost composition vary among counties for which these factors differ. These factors are not independent of one another, however, and the extent of covariation in the factors combined with the relatively small number of counties limit strong conclusions. The briefs will approach this by examining how costs differ by each set of factors for the most recent elections, how those factors co-vary, and, for a small set of counties with consistent data over time, how those costs and factors have trended.

A third issue is what costs – or other outcome measures – can these data profitably illuminate? There are questions here of both what is interesting and useful – how much was spent? What share of it was for staff? How much did ballots cost? – and what data is consistently and correctly available? Data for categories becomes increasing less available as its level of detail increases and as the period of the election recedes further into the past, and is subject to data entry errors (e.g. entering 123456 instead of 1234.56) or differing understandings of unknown as opposed to not applicable. Where possible, we correct or exclude such items, but expect some inconsistencies to remain.

If a single point is clear to us, it is that data improves by being used. The quality of underlying items improves as errors or misunderstandings are corrected, the effects of county compositional reporting by election period increases as trend analyses are run, and the understanding of associations in the data become clearer as analysts, staff and the public respond to and explore the resources and reports. We see this work as a baseline and beginning for those improvements.

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I. Total costs, standardized costs, and cost categories.

Among the thirty-six counties reporting total election costs for the 2014 general election, the mean cost was around 2.5 million, and the median cost was around .75 million. These averages mask huge variability, since total election costs vary widely between counties. This variation is real, and important, but may not tell us about the kinds of costs we are interested in. Furthermore, extreme outliers are problematic when trying to summarize costs and there associations with other factors, since Some very reasonable ways to standardize a total dollar amount involve dividing a total by a target population or outcome of interest. For election costs, there are at least four such denominators that convey useful meanings.

Per capita election cost. Elections serve and affect an entire population – candidates make legislative decisions, judges define and enforce legal rights, schoolboards determine curricula and discipline policies – regardless of whether affected populations could or did vote. Per capita costs reflect a measure which asks – *how much did an election cost per each individual that is potentially affected by its outcome?*

Costs per registered voter. Democratic institutions rely on voting, but not all members of a population can vote. The register of voters for each county serve as the set of members verified to cast ballots. These lists are not perfect, but they set a target maximum that must be accommodated – in outreach, ballot printing, planning for polling places – and hence define a scope for planning and operational costs. This cost can be thought of as – *how much does it cost to provide access to each person that can potentially vote in an election?*

Costs per ballot cast. The election process can be thought of as a production process, in which outreach materials and access is provided to a target population and that, in turn, produces a measurable output – votes. This cost is simply – *how much does an election costs for each completed ballot it generates?*

Cost per “vote opportunity”. We can also think of a vote more granularly. Elections are not typically for a single measure or candidate – they involve multiple decisions by and electorate on a number of issues and candidates, and that number can vary greatly. Standardizing by “vote opportunity” – the sum of candidates and measures for whom votes can be cast – reflects one way of answering the question – *how much does it cost to bring each decision point to a voter?*

These represent four ways to standardize an election cost in ways which improve our ability to compare costs across counties. They are certainly not the only way to standardize – in particular, rather than vote opportunities we might think of the number of races being run to capture the costs of a decision – but they do span a reasonable spectrum.

As the tables below indicate, each of these four modes of standardizing total costs provide a substantial improvement in terms of limiting far “outliers”: while the ratio of the largest value in total costs is 3,822 time the smallest, the ratio of the largest to smallest for per capita, per registered voter, and per ballot cast range from slightly under 6 to slightly over 10; the ratio for costs per vote opportunity remain quite high (around 750). Median costs grow from $2.88 per capita, to just over $6 per registered voter, and double again to over $12 per ballot cast.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Total Election Costs | Total Costs Per Capita  | Total Costs Per Registered Voter | Total Costs Per Ballot Cast | Total Costs Per Vote Opportunity |
| Mean | 2,511,913 | 3.21 | 6.66 | 13.13 | 13479.97 |
| Median | 748,456 | 2.88 | 6.34 | 12.38 | 6202.92 |
| Minimum | 7,896 | 1.14 | 3.18 | 3.04 | 188.00 |
| Maximum | 30,178,563 | 7.24 | 17.70 | 30.61 | 142021.81 |
|  |  |  |  |  |  |
|  | Total Election Costs | Total Costs Per Capita  | Total Costs Per Registered Voter | Total Costs Per Ballot Cast | Total Costs Per Vote Opportunity |
| Ratio of largest to Smallest | 3,822 | 6.36 | 5.57 | 10.06 | 755.44 |
| Ratio of Mean/Median | 3 | 1.11 | 1.05 | 1.06 | 2.17 |

The following table puts some names and values to the counties with the highest and lowest values for total costs and the standardized measures. [Discuss]

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|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
|  | Total Election Costs | Total Costs Per Capita  | Total Costs Per Registered Voter | Total Costs Per Ballot Cast | Total Costs Per Vote Opportunity |
| Top 3 counties | Los Angeles County | Mono County | Mono County | Mono County | Alameda County |
|  | 30,178,563 | 7.24 | 17.70 | 30.61 | 142021.81 |
|  | San Diego County | Alameda County | Alameda County | Alameda County | Los Angeles County |
|  | 10,522,307 | 6.20 | 11.69 | 24.67 | 97665.25 |
|  | Alameda County | Placer County | Monterey County | San Mateo County | San Mateo County |
|  | 9,515,461 | 5.14 | 11.02 | 23.83 | 20735.17 |
| Bottom 3 counties |   |   |   |   |   |
|  | Glenn County | Napa County | Stanislaus County | Napa County | Plumas County |
|  | 68,183 | 1.64 | 3.21 | 5.81 | 1296.98 |
|  | Modoc County | Stanislaus County | Napa County | Sierra County | Modoc County |
|  | 35,749 | 1.33 | 3.21 | 4.85 | 1083.30 |
|  | Sierra County | Tulare County | El Dorado County | El Dorado County | Sierra County |
|  | 7,896 | 1.14 | 3.18 | 3.04 | 188.00 |

Although total costs provide an important metric, one of the strengths of the cost surveys are the ability to better understand what those costs are incurred for. We use seven illustrative measures developed by Los Angeles county staff, to break out these cost components, and standardize by expressing them as a percentage of all direct costs. The measures are: Canvass Cost, Pollworker Cost, Polling Place Cost, Postage Cost, Sample and Official Ballot Printing Cost, Multilingual Cost, and Provisional Ballot Processing Cost.

Breaking the counties into groups based on cost quintiles using two of our standardized costs – per registered voter and per vote opportunity – and looking at the composition of costs within those groups Looking at the composition of costs by quintiles helps to highlight both similarities and differences in costs. (Note: these cost categories are not exhaustive, and will not sum to 100%).

On average, the largest fraction of costs identified are directed toward ballot printing, accounting a little over one-fifth of direct costs. In counties with relatively low costs per registered voter, they account for almost a third of costs, however, declining steadily to around 1 in 7 dollars spent in counties with the highest levels of costs. Similar patterns of declining proportion of costs are notable for postage: together, these two categories account for nearly half of costs in the lowest cost (per registered voter) counties, and less that 20% of costs in the highest cost counties.

Considering the cost compositions by quintiles based on vote opportunities, which are more closely associated with ballot length and complexity, complex jurisdictions, and county size, suggest an increasing contribution of polling place costs as overall costs increase, but few other discernable patterns.

|  |
| --- |
| **Report** |
| Cost Quintiles: Per Registered Voter | Mean |   |
| Canvas Cost Pct |  Pollworker Cost Pct |  Polling Place Cost Pct |  Postage Cost Pct | Ballot Printing Cost Pct | Multi-lingual Cost Pct | Provisional Ballot Processing Cost Pct |
| bottom quintile | 0.8% | 9.4% | 4.7% | 17.9% | 29.7% | 2.8% | 0.1% |
| 2nd lowest quintile | 0.5% | 15.0% | 11.9% | 7.1% | 25.3% | 3.4% | 0.5% |
| middle quintile | 0.3% | 12.1% | 9.5% | 6.2% | 21.3% | 1.6% | 0.2% |
| second highest quintile | 0.3% | 15.2% | 7.0% | 5.5% | 19.2% | 1.6% | 0.3% |
| highest quintile | 0.0% | 10.9% | 18.7% | 5.6% | 13.7% | 0.7% | 0.2% |
| Total | 0.3% | 13.2% | 10.7% | 7.6% | 21.2% | 1.9% | 0.3% |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Cost Quintiles: Per Vote opportunity | Mean |   |
| Canvas Cost Pct |  Pollworker Cost Pct |  Polling Place Cost Pct |  Postage Cost Pct | Ballot Printing Cost Pct | Multi-lingual Cost Pct | Provisional Ballot Processing Cost Pct |
| bottom quintile | 0.3% | 12.3% | 8.4% | 9.8% | 32.2% | 1.3% | 0.3% |
| 2nd lowest quintile | 0.4% | 12.4% | 5.2% | 11.1% | 13.8% | 1.3% | 0.1% |
| middle quintile | 0.3% | 15.5% | 9.8% | 5.9% | 33.3% | 0.4% | 0.1% |
| second highest quintile | 0.0% | 12.6% | 10.3% | 5.7% | 12.3% | 2.9% | 0.5% |
| highest quintile | 0.4% | 12.5% | 16.6% | 5.3% | 16.4% | 3.1% | 0.4% |
| Total | 0.3% | 13.1% | 10.2% | 7.6% | 21.2% | 1.8% | 0.3% |

In the following set of briefs, we build on both the approaches to standardizing costs and considering specific costs areas, but add a focus on specific constellations of factors that may influence costs or cost composition. Those factors include jurisdictional complexity, electorate complexity, labor costs, the impact of vote-by-mail, and voting technologies. For each brief, we consider measures available from the surveys or other sources which give insight into the factor, examine the association of that factor with costs and cost composition in the 2014 general election (for which we have most extensive data), examine the extent to which that factor co-varies with other factors, and examine trends over time for a selected groups of counties.