



ALEX PADILLA | SECRETARY OF STATE | STATE OF CALIFORNIA
ELECTIONS DIVISION

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July 3, 2020

County Clerk/Registrar of Voters (CC/ROV) Memorandum #20142

TO: All County Clerks/Registrars of Voters

FROM: /s/ Jana M. Lean
Chief, Elections Division

RE: General Election: July 2020 County Election Administration Survey

We are requesting updated information about how your county intends to conduct election-related activities while addressing health and safety concerns for staff and voters. We created the attached July 2020 County Election Administration Survey in order to capture updates to this important information.

The survey requests information regarding how many and what type of voting locations will be implemented, staffing plans, drop box needs, and any other resources you have identified as being necessary to safely conduct the election. Additionally, there is space on the survey to request assistance from the Secretary of State's office with recruitment of voting location spaces.

An order form for personal protective equipment has been added for counties to request PPE support. In addition to this order form our office is providing our methodology from determining estimates of PPE needs by county.

Please return the completed July 2020 County Election Administration survey to electioncybersecurity@sos.ca.gov no later than July 15, 2020.

Should you have any questions regarding the report or need any assistance, please contact Mike Somers at (916) 695-1563 or MSomers@sos.ca.gov. Thank you.

Attachment(s)

[July 2020 County Election Administration Survey for the November 3, 2020, General Election \(XLSX\)](#)

Methodology for Determining County Elections Personal Protective Equipment Needs for the November 2020 General Election

November 2020 General Election PPE Quantity Projections - CA Secretary of State Elections Division

November 2020 General Election Personal Protective Equipment Cost Estimate and Analysis

Methodology for Determining County Elections Personal Protective Equipment Needs for the November 2020 General Election

Executive Summary

The projections for county-based PPE needs were calculated using a combination of data and assumptions derived from ongoing conversations with stakeholders following the declaration of emergency in the State of California related to the COVID-19 pandemic. The calculator was built to enable analytical staff to quickly and easily input variables based on plausible election administration scenarios such as in-person voting location ratios, county election support staffing, and PPE costs.

- Voter counts were projected based on average turn out for presidential general elections, average increases in voter registration, and VBM usage from the March 2020 Primary Election.
- PPE use rates were based on research and common-sense precautions that will allow poll workers and other election staff to feel safe and comfortable.
- The calculator was designed to keep quantity and cost projections for county staff and the general public separate to enable decision makers with the best information regarding the cost of providing PPE to the voting public.

I. Goals and Objectives

The goal of developing the Personal Protective Equipment (PPE) Calculator is to enable decision-makers within State and County Government to quickly evaluate quantity and cost scenarios related to providing PPE to election staff and the general voting public. The calculator was designed to allow analytical staff to quickly input or change many variables to enable easy to produce cost and volume projections for each county.

II. Assumptions

In order to enable the most effective projections model certain assumptions had to be made about voter registration, voter turnout, staffing expectations, and PPE usage rates.

Voter registration projections started with the official registration numbers for the March 3, 2020 Presidential Primary Election 15-day report and added the average growth in registration between primary and general elections for each county. Then the projected voter turnout was determined by applying the average turnout by county for each of the last three presidential general elections. Additionally, the expected in-person voter count was determined by subtracting total returned VBM from the March 3, 2020 Presidential Primary Election from the projected total voter turnout.

Assumptions were also made about the election staffing scenarios for voting locations as well as election support staff. During the early voting period it was projected that counties would staff early voting locations with 10 staff per location. During Election Day it was projected that counties would utilize 16 poll workers per location. The calculator also accounts for roving election support staff. The calculator currently assumes counties utilize one support staff for every five voting locations. Also, the calculator also assumes that counties will hire 1 support staff for every 20,000

projected VBM voters and those support staff will each work 100 hours where PPE will need to be provided. Lastly, it was assumed workers shifts for the early voting period would only be 8 hours long, whereas on Election Day workers are estimated to work 16-hour days.

Finally, PPE usage rates were determined by reviewing both scientific literature, public health recommendations, and common-sense procedures that would ensure election staff and voters feel comfortable in face-to-face interactions in a voting location. For example, scientific literature noted that an application of at least 3 mL of hand sanitizer was needed to be effective, so hand sanitizer usage is projected based on a 3 mL application of sanitizer.

Other than the voter registration, turnout, and VBM return numbers many of the other assumptions are included on the variables portion of the calculator and can be quickly and easily updated to accommodate for different staffing scenarios and PPE usage rates.

III. Calculations

After projections for voter registration, turnout, and in-person voting were determined, calculations were performed to estimate the number of election workers and staffing expectations. The calculator is currently set to estimate the number of in-person voting locations at a ratio of 1 per 10,000 registered voters. The calculator is also set to project PPE needs based on a 3-day early voting period. Because many of the PPE usage rates are based on changing equipment after a certain set time period the number of workers is converted to the number of worker hours where PPE will be expected to be provided.

Once the number of worker hours is determined the PPE usage rates are applied and the quantities are calculated. Then the voter PPE usage rates are applied to the projected number of in-person voters and the quantities are determined for the voters. Finally, the costs are applied to the quantity calculations to determine the total projected cost. The costs are also included in the variables section of the sheet to enable easy changes to the costs as additional information becomes available.

One important note is for anyone updating the cost variables is to pay attention to the units of the PPE products. Often quotes for products come in different volumes or counts and must be converted to the units used in the calculator for each type of product. If unit costs are ignored or mis-entered the cost projections can be wildly off.

IV. Results

The calculator has costs and quantity reports by county already built into the sheet. The report shows sub-totals for three categories: "County Core PPE," "Optional Equipment," and "Voter Supplies." County Core PPE includes hand sanitizer, face masks, gloves, disinfectant wipes, and terminal wipes for electronic equipment. SOS staff was uncertain if other types of PPE would be utilized in voting locations or by poll workers. Therefore, face shields, table covers, thermometers, and plexiglass sneeze guards were sub-totaled as Optional Equipment. Finally, because it is unclear if counties will be providing PPE for voters and because that expense is significantly more than other categories, Voter PPE costs were sub-totaled separately as well. The quantity report is similarly divided.

Based on the results of the cost projections PPE represents a significant expenditure for counties. This is particularly true if enough PPE is purchased for the in-person voting population. State and

county officials are carefully considering the potential expenditure, and though far from perfect, these cost estimates provide much needed context for State and County decision-makers.

V. Limitations

The challenges of attempting to project PPE needs for each county and their voters are many. This calculator and its results represent an important tool that aims to help further illuminate the many obstacles encountered when providing a health-protective voting environment. However, in order to enable the most robust conversation the limits of the projections provided by this tool must also be acknowledged.

First, it is likely given the public concern regarding COVID-19 and the Governor's orders that each registered voter be sent a mail ballot, that the estimate of in-person voters is too high. However, because California's voters use vote-by-mail at a relatively high rate and the State has eliminated many barriers related to voting-by-mail already, it is possible that many voters will still choose to vote in-person and elections officials must be prepared for that possibility.

Also, it is likely that the number of worker hours to be dedicated to the election may also be on the high side for many counties. Small and medium counties may not employ some of the same service strategies such as election support rovers or may hire fewer workers per voting location. However, the SOS decided to err on the side of extra volume to enable full staffing of voting locations. The one-size-fits-all modeling of election administration was employed to simplify the cost projections and ensure each county was being projected resources at the same rate across the board. The extra PPE may also be helpful to ensure coverage for permanent county elections staff who were not explicitly considered in the calculator.

November 2020 General Election PPE Quantity Projections - CA Secretary of State Elections Division

County	Core County Personal Protective Equipment				
	Sanitizer (Fl. Oz.)	3-Ply Mask	Gloves (pair)	Disinfectant Wipes	Terminal Wipes
Alameda	16989	25413	52100	429348	429348
Alpine	190	281	636	149	149
Amador (VCA)	521	777	1628	5746	5746
Butte (VCA)	2234	3334	6968	26684	26684
Calaveras (VCA)	686	1025	2124	7092	7092
Colusa	190	281	636	4028	4028
Contra Costa	12249	18319	37612	344375	344375
Del Norte	356	529	1132	6134	6134
El Dorado (VCA)	2400	3582	7464	37987	37987
Fresno (VCA)	8500	12713	26100	158682	158682
Glenn	356	529	1132	4700	4700
Humboldt	1537	2297	4744	32735	32735
Imperial	1526	2285	4644	40064	40064
Inyo	356	529	1132	3700	3700
Kern	7296	10919	22288	177010	177010
Kings	1196	1789	3652	22493	22493
Lake	686	1025	2124	12703	12703
Lassen	356	529	1132	4928	4928
Los Angeles (VCA)	100274	150169	304688	3103823	3103823
Madera (VCA)	1207	1801	3752	20858	20858
Marin	3085	4607	9588	74695	74695
Mariposa (VCA)	356	529	1132	2273	2273
Mendocino	1041	1553	3256	16808	16808
Merced	2047	3061	6272	43277	43277
Modoc	190	281	636	1614	1614
Mono	190	281	636	3223	3223
Monterey	3584	5358	11016	88714	88714
Napa (VCA)	1548	2310	4844	23252	23252
Nevada (VCA)	1383	2062	4348	19497	19497
Orange (VCA)	29756	44500	91400	604181	604181
Placer	4611	6891	14232	111270	111270

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County	Core County Personal Protective Equipment				
	Sanitizer (Fl. Oz.)	3-Ply Mask	Gloves (pair)	Disinfectant Wipes	Terminal Wipes
Plumas	356	529	1132	2671	2671
Riverside	21212	31738	64900	556515	556515
Sacramento (VCA)	15166	22670	46764	314192	314192
San Benito	686	1025	2124	11270	11270
San Bernardino	18980	28411	57872	560012	560012
San Diego	33967	50813	104100	972957	972957
San Francisco	9352	13985	28720	227560	227560
San Joaquin	6126	9163	18776	148875	148875
San Luis Obispo	3416	5103	10580	70823	70823
San Mateo (VCA)	7850	11733	24216	169586	169586
Santa Barbara	4256	6363	13100	106795	106795
Santa Clara (VCA)	17885	26735	55120	406401	406401
Santa Cruz	3074	4594	9488	74094	74094
Shasta	1892	2826	5876	41533	41533
Sierra	190	281	636	476	476
Siskiyou	521	777	1628	10818	10818
Solano	4424	6618	13536	119937	119937
Sonoma	5129	7660	15920	108167	108167
Stanislaus	4931	7375	15124	110045	110045
Sutter	1041	1553	3256	19022	19022
Tehama	686	1025	2124	12863	12863
Trinity	190	281	636	2412	2412
Tulare	3394	5078	10380	84382	84382
Tuolumne (VCA)	697	1037	2224	7969	7969
Ventura	8500	12713	26100	229436	229436
Yolo	2388	3570	7364	52439	52439
Yuba	686	1025	2124	14327	14327
Total	383891	574240	1176868	9867620	9867620

November 2020 General Election PPE Quantity Projections - CA Secretary of State Elections Division

County	Optional Equipment				Voter PPE Supply		
	Face Shield	Table Cover	Thermometer	Sneeze Guard	Hand Sanitizer (Fl. Oz.)	3-ply Masks	Gloves
Alameda	2920	2400	234	205	95411	214674	214674
Alpine	30	24	3	3	34	75	75
Amador (VCA)	88	72	7	7	1277	2873	2873
Butte (VCA)	380	312	31	27	5930	13342	13342
Calaveras (VCA)	117	96	10	9	1576	3546	3546
Colusa	30	24	3	3	896	2014	2014
Contra Costa	2103	1728	168	148	76528	172188	172188
Del Norte	59	48	5	5	1364	3067	3067
El Dorado (VCA)	409	336	33	29	8442	18994	18994
Fresno (VCA)	1460	1200	117	103	35263	79341	79341
Glenn	59	48	5	5	1045	2350	2350
Humboldt	263	216	21	19	7275	16368	16368
Imperial	263	216	21	19	8904	20032	20032
Inyo	59	48	5	5	823	1850	1850
Kern	1256	1032	101	89	39336	88505	88505
Kings	205	168	17	15	4999	11247	11247
Lake	117	96	10	9	2823	6352	6352
Lassen	59	48	5	5	1096	2464	2464
Los Angeles (VCA)	17316	14232	1384	1216	689739	1551912	1551912
Madera (VCA)	205	168	17	15	4636	10429	10429
Marin	526	432	42	37	16599	37348	37348
Mariposa (VCA)	59	48	5	5	506	1137	1137
Mendocino	176	144	14	13	3736	8404	8404
Merced	351	288	28	25	9618	21639	21639
Modoc	30	24	3	3	359	807	807
Mono	30	24	3	3	717	1612	1612
Monterey	614	504	49	44	19715	44357	44357
Napa (VCA)	263	216	21	19	5168	11626	11626
Nevada (VCA)	234	192	19	17	4333	9749	9749
Orange (VCA)	5110	4200	409	359	134263	302091	302091
Placer	789	648	63	56	24727	55635	55635

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County	Optional Equipment				Voter PPE Supply		
	Face Shield	Table Cover	Thermometer	Sneeze Guard	Hand Sanitizer (Fl. Oz.)	3-ply Masks	Gloves
Plumas	59	48	5	5	594	1336	1336
Riverside	3650	3000	292	257	123670	278258	278258
Sacramento (VCA)	2599	2136	208	183	69821	157096	157096
San Benito	117	96	10	9	2505	5635	5635
San Bernardino	3271	2688	262	230	124448	280006	280006
San Diego	5840	4800	467	410	216213	486479	486479
San Francisco	1606	1320	129	113	50569	113780	113780
San Joaquin	1052	864	84	74	33084	74438	74438
San Luis Obispo	584	480	47	41	15739	35412	35412
San Mateo (VCA)	1344	1104	108	95	37686	84793	84793
Santa Barbara	730	600	59	52	23733	53398	53398
Santa Clara (VCA)	3066	2520	245	216	90312	203201	203201
Santa Cruz	526	432	42	37	16466	37047	37047
Shasta	322	264	26	23	9230	20767	20767
Sierra	30	24	3	3	106	238	238
Siskiyou	88	72	7	7	2404	5409	5409
Solano	760	624	61	54	26653	59969	59969
Sonoma	876	720	70	62	24038	54084	54084
Stanislaus	847	696	68	60	24455	55023	55023
Sutter	176	144	14	13	4228	9511	9511
Tehama	117	96	10	9	2859	6432	6432
Trinity	30	24	3	3	536	1206	1206
Tulare	584	480	47	41	18752	42191	42191
Tuolumne (VCA)	117	96	10	9	1771	3985	3985
Ventura	1460	1200	117	103	50986	114718	114718
Yolo	409	336	33	29	11654	26220	26220
Yuba	117	96	10	9	3184	7164	7164
Total	65957	54192	5290	4664	2192834	4933824	4933824

Variables

Election Administration Variables

Locations	1 Location for every	10000	Projected Registered Voters
Early Voting Period	Early voting for	3	Days before Election Day
Workers on Site: Early Voting	Workers per Location	10	Workers
Workers on Site: Election Day	Workers per Location	16	Workers
Roving Techs	Locations Covered per Tech	5	Locations
VBM Workers	Number of VMB Voters per worker	20000	VBM Voters per worker hired
VBM Staff Hours	Hours worked by VBM Worker	100	Hours on staff

PPE Use Rate Variables

Hand Sanitizer Applications	Applications by pollworkers	3	per hour
	Applications by VBM processing staff	1	per hour
	Applications by voters	2	per visit
Face Mask use rate	Pollworker/techs mask changes every	2	hours
	VBM staff mask change every	8	hours
	One out of every	2	voters request a mask
Glove use rate	Pollworker/techs glove change every	1	hours
	VBM staff glove change every	1	hours
	One out of every	2	voters request gloves
Disinfecting Wipes	Workers wipe location after every	1	voters
Terminal Wipes	Workers clean equipment after every	1	voters
Table Covers	Each location gets	6	per location per day (equals 50 ft.)
Face Shields	Each worker gets	1	shields
	Each location gets	1	backup shields per day
	Each location gets	2	thermometers
Thermometers	One backup thermometer for every	3	locations
	Each location gets	2	guards
Sneeze Guards	One backup guard for every	20	locations