Committee Item No.	_2	
Board Item No.		

COMMITTEE/BOARD OF SUPERVISORS

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	Report Preprint - Yea-Hung Chen, e Associated with the COVID-19 Pand 18-65 Years of Age, by Occupations	demic amor al Sector ar	ng Californians nd Occupation:
	March through October 2020-2021" Presidential Action Memo – Februa		
	John Carroll Da	te:	ary 26, 2021

1	[Emergency Ordinance	- COVID-Related Hazard Pay]			
2					
3	Emergency ordinance	to temporarily require certain grocery stores, drug stores, and			
4	property service contr	actors for grocery stores and drug stores to pay employees an			
5	additional five dollars	per hour during the public health emergency related to			
6	COVID-19.				
7 8	Additio Deletio Board	nged Code text and uncodified text are in plain Arial font. Ons to Codes are in single-underline italics Times New Roman font. Ons to Codes are in strikethrough italics Times New Roman font. amendment additions are in double-underlined Arial font.			
9 10	Asteris	amendment deletions are in strikethrough Arial font. sks (* * * *) indicate the omission of unchanged Code stions or parts of tables.			
11					
12 13	Be it ordained by	the People of the City and County of San Francisco:			
14	Section 1. Declar	ation of Emergency Pursuant to Charter Section 2.107.			
15	(a) Section 2.	107 of the Charter authorizes passage of an emergency ordinance in			
16	cases of public emergency affecting life, health, or property, or for the uninterrupted operation				
17	of any City or County de	epartment or office required to comply with time limitations established			
18	by law.				
19	(b) On Februa	ary 25, 2020, Mayor London Breed proclaimed a state of emergency in			
20	response to the spread	of the novel coronavirus COVID-19. On March 3, 2020, the Board of			
21	Supervisors concurred i	n the February 25 Proclamation and in the actions taken by the Mayor			
22	to meet the public health	n emergency related to COVID-19.			
23	(c) The Board	of Supervisors hereby finds and declares that an actual emergency			
24	exists that requires the p	passage of this emergency ordinance to address the COVID-19			
25	pandemic by reducing the	ne likelihood of COVID-19 infection among workers at grocery stores			

and drug stores, their families and coworkers, and the members of the public with whom they interact.

Section 2. Findings and Purpose.

- (a) On March 19, 2020, the California State Public Health Officer designated specific sectors and their workers, including workers supporting grocery stores and pharmacies, as Essential Critical Infrastructure Workers to ensure the continuity of functions critical to public health and safety, as well as economic and national security. These essential workers include grocery store and drug store employees, as well as on-site workers employed by third-party contractors, such as janitorial and security companies. Over the last year, workers in grocery stores and drug stores have continued to report to work and serve their communities, despite the ongoing hazards, including the high risk of contracting COVID-19 due to their frequent interaction with members of the public. Their commitment to essential work has ensured that residents of San Francisco and elsewhere have had access to food, medication, and other essential goods during this pandemic.
- (b) Unlike workers in many sectors of the economy, grocery and drug store workers cannot work from home. The nature of their jobs requires them to come to work at a store, usually indoors, with less air circulation than an open outdoor environment, which presents a heightened risk of contracting COVID-19. Further, at the work site, these workers face heightened risks of contracting COVID-19 due to their frequent interactions with customers and coworkers on an ongoing basis, often in close contact. Security workers incur the additional risk of physical confrontations with individuals posing security risks. Janitorial workers must sanitize surfaces that may harbor viral contaminants. These various risks are so stark that researchers estimate that food and agricultural workers in California have experienced a 39% increase in mortality during the pandemic compared with prior periods, the

- 1 highest of any sector. Yea-Hung Chen, et al. "Excess Mortality Associated with the COVID-19
- 2 Pandemic among Californians 18-65 Years of Age, by Occupational Sector and Occupation:
- 3 March through October 2020-2021," Jan. 21, 2021, on file with the Clerk of the Board of
- 4 Supervisors in File No. 210181.

- (c) Many employers have made efforts to protect workers, including requiring workers to wear personal protective equipment, requiring social distancing from each other and from customers, and sanitizing cash registers, food conveyor belts, and shopping carts. To enhance the health and safety of frontline workers, the City enacted Ordinance No. 74-20 to require grocery store, drug store, restaurant, and on-demand delivery service employers to provide health and scheduling protections to employees during the public health emergency related to COVID-19. The City reenacted that emergency ordinance in Ordinance Nos. 110-20, 156-20, 230-20, and 010-21. Even with those protections, however, the health threats that these workers face have been and continue to be substantial.
- (d) It is of paramount importance to the public health to ensure that these workers are able to protect themselves from COVID-19 infection, both to ensure the health of the workers and their families and to minimize the risk of transmission to customers and coworkers at their work sites. It is therefore critical that workers be able to afford protections to avoid exposure to COVID-19. Grocery workers and drug store workers, including janitorial and security workers hired through contractors at grocery stores and stores, are not highly paid. Yet, to maximize protection and reduce risk, many of these workers must take expensive precautions away from the work site. While employers must provide workers personal protective equipment at work, it is in the public interest for workers to purchase and use personal protective equipment when they are not at work, including when they are commuting to and from work. Workers generally must use their own personal funds to pay for off-the-job protective equipment. And, some workers also use personal funds to buy on-the-

- job protective equipment; reports indicate that front-line workers often have concerns about COVID safety at their workplace, which may lead them to incur additional expenses when they believe that their employers' prevention measures at the workplace are insufficient.

 Workers may similarly incur extra costs to ensure safe commutes to and from work to
- Workers may similarly incur extra costs to ensure safe commutes to and from work to
 minimize exposure to other individuals on public transit. Among other costs, some workers
 may pay for parking, tolls, and vehicle expenses to provide a safer commute.
 - (e) Public schools in the City and several other Bay Area school districts continue to offer only remote learning opportunities for students. Additionally, child care may be more expensive and difficult to locate due to child care program closures, public health restrictions, and other pandemic-related challenges. These factors have created a child care emergency for grocery and drug store workers and other essential workers who cannot work remotely and thus cannot care for their children during work hours, which is sometimes possible for people who work from home. By offsetting some of the additional child care costs that grocery and drug store workers may incur, this emergency ordinance reduces the risk that children will be left without care or with inadequate care due to pandemic-related school and child care disruptions.
 - (f) Additionally, there is a strong public interest in minimizing the need for workers to have multiple jobs, because working multiple jobs increases their exposure to others and contributes to the spread of COVID-19. Workers who receive lower wages are more likely to need to take on more than one job to support their families and pay bills. This emergency ordinance reduces that need, and therefore reduces that risk, by increasing the wages of lowwage workers in frontline positions.

Section 3. Definitions.

For purposes of this emergency ordinance, the following definitions apply.

"Agency" means the Office of Labor Standards Enforcement.

"Base Wage" means the hourly wage paid to an Employee by a Covered Employer on the effective date of this emergency ordinance, including, when applicable, any wage enhancement provided by the Covered Employer for overtime, holiday, or other premium pay. Base Wage shall not include any Employer-Initiated Hazard Pay.

"City" means the City and County of San Francisco.

"Covered Employer" means any person, as defined in Section 18 of the California Labor Code, including corporate officers or executives, who directly or indirectly or through an agent or any other person, including through the services of a temporary services or staffing agency or similar entity, employs, suffers or permits to work, or exercises control over the wages, hours, or working conditions of 500 or more persons worldwide, including at least 20 Employees of any General Grocery, Specialty Grocery, or Pharmacy retail store, as those terms are defined in Planning Code Section 102, within the geographic boundaries of the City. Further, "Covered Employer" also means any Property Services Contractor.

"Employee" means any person providing labor or services for remuneration for a Covered Employer who is an employee under California Labor Code Section 2775, as may be amended from time to time, including a part-time or temporary employee.

"Employer-Initiated Hazard Pay" means a premium pay rate to compensate Employees for the hardships and risks associated with working during the COVID-19 pandemic, that the Covered Employer provided to its Employees on or after February 1, 2020, including collectively bargained Employer-Initiated Hazard Pay. "Employer-Initiated Hazard Pay" additionally includes a premium pay rate provided under a collective bargaining agreement predating February 1, 2020, that clearly and unambiguously requires the Covered Employer to pay increased compensation to Employees working under hazardous conditions including conditions that could expose Employees to contagious disease. If a Covered Employer pays

such Employer-Initiated Hazard Pay on any basis other than an hourly rate, such as a flat rate per week, the premium hourly rate shall be determined by dividing the Employer-Initiated Hazard Pay for the applicable pay period by the number of Hours Worked during such pay period.

"Hazard Pay" means a \$5 per hour wage bonus in addition to an Employee's Base Wage, including any premium pay applicable at the time, for each hour worked; except that for Employees whose Base Wage is between \$30 per hour and \$34.99 per hour, "Hazard Pay" means a wage bonus for each hour worked in an amount calculated to increase the Employee's hourly wage to \$35 per hour.

"Hours Worked" means the time during which an Employee is subject to the control of a Covered Employer, including all the time the Employee is suffered or permitted to work, and all the time the Employee is on-call.

"Property Services Contractor" means a contractor or subcontractor that provides onsite janitorial or security services at any General Grocery, Specialty Grocery, or Pharmacy
retail store, as those terms are defined in Planning Code Section 102, within the geographic
boundaries of the City, who directly or indirectly or through an agent or any other person,
including through the services of a temporary services or staffing agency or similar entity,
employs, suffers or permits to work, or exercises control over the wages, hours, or working
conditions of 500 or more persons worldwide, including at least 20 Employees within the
geographic boundaries of the City.

Section 4. Hazard Pay Requirement.

(a) Hazard Pay. Beginning on the effective date of this emergency ordinance, every Covered Employer shall pay Hazard Pay to all Employees whose Base Wage is less than \$35 per hour.

(b)	Credit for Employer-Initiated Hazard Pay. If a Covered Employer provides
Employer-Ini	itiated Hazard Pay to an Employee, the Covered Employer may reduce the
amount of H	azard Pay required under subsection 4(a) by the amount of Employer-Initiated
Hazard Pay	for the Hours Worked.

- Employer provides Employer-Initiated Hazard Pay of \$4 per hour to an Employee with a Base Wage of \$20 per hour, such that the Employee's total wage is \$24 per hour, then the Covered Employer must provide an additional \$1 Hazard Pay under subsection (a) to bring the Employee's total wage to \$25 per hour. As another illustrative example, if a Covered Employer provides Employer-Initiated Hazard Pay of \$4 per hour to an Employee with a Base Wage of \$32 per hour, such that the Employee's total wage is \$36 per hour, then the Covered Employer has no obligation to provide additional Hazard Pay under subsection (a).
- (2) Past Payments and Payments for Past Work. A Covered Employer may not reduce the amount of Hazard Pay under this subsection (b) to account for Employer-Initiated Hazard Pay that the Covered Employer owed or previously paid to a Covered Employee for work previously performed.

(a)

Section 5. Notice to Employees.

ordinance, publish and make available on its website a notice suitable for Covered Employers to inform Employees of their rights under this emergency ordinance. The Agency shall publish such notice in English, Spanish, Chinese, and Filipino. The Agency shall make best efforts to provide such notice to each Covered Employer through electronic communication on

The Agency shall, within seven days of the effective date of this emergency

the same date that it is published.

- (b) A Covered Employer shall within three days after the Agency has published and made available the notice described in subsection (a), provide the notice to Employees in a manner calculated to reach all Employees: by posting in a conspicuous place at the workplace, via electronic communication, and/or by posting in a conspicuous place in a Covered Employer's web-based or app-based Employee platform. Every Covered Employer shall provide the notice in English, Spanish, Chinese, Filipino, and any language spoken by at least 5% of the Employees at the workplace or job site.
- (c) To the extent feasible, on the same written notice that a Covered Employer is required to provide under Section 226(a) of the California Labor Code, a Covered Employer shall set forth the amount of Hazard Pay paid to the Employee under this emergency ordinance.

- Section 6. Exercise of Rights Protected; Retaliation Prohibited.
- (a) It shall be unlawful for a Covered Employer or any other person to interfere with, restrain, or deny the exercise of, or the attempt to exercise, any right protected under this emergency ordinance.
- (b) It shall be unlawful for a Covered Employer or any other person to discharge, threaten to discharge, demote, suspend, reduce other Employee benefits, or in any manner discriminate or take adverse action against any person in retaliation for exercising rights protected under this emergency ordinance. Such rights include but are not limited to the right to receive Hazard Pay pursuant to this emergency ordinance; the right to file a complaint or inform any person about any Covered Employer's alleged violation of this emergency ordinance; the right to cooperate with the Agency in its investigations of alleged violations of this emergency ordinance; and the right to inform any person of that person's potential rights under this emergency ordinance.

- (c) Protections of this emergency ordinance shall apply to any person who mistakenly but in good faith alleges violations of this emergency ordinance.
- (d) Taking adverse action against a person within 90 days of the person's filing a complaint with the Agency or a court alleging a violation of any provision of this emergency ordinance; informing any person about a Covered Employer's alleged violation of this emergency ordinance; cooperating with the Agency or other persons in the investigation or prosecution of any alleged violation of this emergency ordinance; opposing any policy, practice, or act that is unlawful under this emergency ordinance; or informing any person of that person's rights under this emergency ordinance, shall raise a rebuttable presumption that such adverse action was taken in retaliation for the exercise of one or more of the aforementioned rights.

Section 7. Records, Implementation, and Enforcement.

- (a) Covered Employers shall retain records related to Hazard Pay in the same manner and to the same extent as records that must be retained under Administrative Code Section 12R.5(c) and Agency rules and guidelines governing retention of such records.
- (b) Additionally, Covered Employers shall retain and disclose to the Agency upon request any records related to Employer-Initiated Hazard Pay, including but not limited to (1) copies of the Covered Employer's Employer-Initiated Hazard Pay policy; (2) copies of written notifications to Employees regarding the policy; and (3) for any Employee as to whom a Covered Employer seeks credit under section 4(b) of this emergency ordinance, documentation reflecting that Employer-Initiated Hazard Pay payments were made for each hour claimed.
- (c) The Agency is authorized to implement and enforce this emergency ordinance and may promulgate rules and guidelines for such purposes. Except as otherwise provided by

1	Agency rules or guidelines, the administrative and civil enforcement provisions of			
2	Administrative Code Section 12R.7 apply to this emergency ordinance. Until such time as the			
3	Agency promulgates any additional rules or guidelines, the rules and guidelines adopted by			
4	the Agency interpreting Administrative Code Section 12R.7 shall apply to this emergency			
5	ordinance.			
6				
7	Section 8. Waiver Through Collective Bargaining.			
8	(a) All or any portion of the applicable requirements of this emergency ordinance			
9	shall not apply to Employees covered by a bona fide collective bargaining agreement to the			
10	extent that such requirements are expressly waived in a collective bargaining agreement in			
11	clear and unambiguous terms.			
12	(b) The requirements of this emergency ordinance may not be waived by			
13	agreement between an individual Employee and a Covered Employer.			
14				
15	Section 9. Preemption.			
16	Nothing in this emergency ordinance shall be interpreted or applied so as to create any			
17	power or duty in conflict with federal or state law. The term "conflict," as used in this Section 9			
18	means a conflict that is preemptive under federal or state law.			
19				
20	Section 10. City Undertaking Limited to Promotion of the General Welfare.			
21	In undertaking the adoption and enforcement of this emergency ordinance, the City is			
22	undertaking only to promote the general welfare. The City is not assuming, nor is it imposing			
23	on its officers and employees, an obligation for breach of which it is liable in money damages			

to any person who claims that such breach proximately caused injury. This emergency

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ordinance does not create a legally enforceable right by any member of the public against the City.

Section 11. Severability.

If any section, subsection, sentence, clause, phrase, or word of this emergency ordinance, or any application thereof to any person or circumstance, is held to be invalid or unconstitutional by a decision of a court of competent jurisdiction, such decision shall not affect the validity of the remaining portions or applications of this emergency ordinance. The Board of Supervisors hereby declares that it would have passed this ordinance and every section, subsection, sentence, clause, phrase, and word not declared invalid and unconstitutional without regard to whether any other portion of this emergency ordinance or application thereof would be subsequently declared invalid or unconstitutional.

Section 12. Effective Date; Expiration.

Consistent with Charter Section 2.107, this emergency ordinance shall become effective immediately upon enactment, and shall expire on the 61st day following enactment unless reenacted as provided by Section 2.107. Enactment occurs when the Mayor signs the ordinance, the Mayor returns the ordinance unsigned or does not sign the ordinance within ten days of receiving it, or the Board of Supervisors overrides the Mayor's veto of the ordinance.

Section 13. Suspension of Charter Section 14.101.

To address the emergency conditions described above, and to the extent this emergency ordinance temporarily modifies the City's Minimum Wage Ordinance, the Board of Supervisors finds that it is necessary to temporarily modify the Minimum Wage Ordinance,

1	Section 12R.13, which provides that the Board of Supervisors may not amend the substantive
2	requirements or scope of that Ordinance, and to suspend the restriction in Charter Section
3	14.101 for that limited purpose.
4	
5	Section 14. Supermajority Vote Required.
6	In accordance with Charter Section 2.107, passage of this emergency ordinance by the
7	Board of Supervisors requires an affirmative vote of two-thirds of the Board of Supervisors.
8	
9	APPROVED AS TO FORM:
10	DENNIS J. HERRERA, City Attorney
11	By: /s/
12	LISA POWELL Deputy City Attorney
13	n:\legana\as2021\2100300\01514853.docx
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LEGISLATIVE DIGEST

[Emergency Ordinance - COVID-Related Hazard Pay]

Emergency ordinance to temporarily require certain grocery stores, drug stores, and property service contractors for grocery stores and drug stores to pay employees an additional five dollars per hour during the public health emergency related to COVID-19.

Existing Law

The Minimum Wage Ordinance, Administrative Code Chapter 12R, requires employers of employees in the City to pay a minimum hourly wage rate, which is adjusted annually and is currently \$16.07 per hour.

Amendments to Current Law

The proposed emergency ordinance temporarily requires certain grocery stores, drug stores, and janitorial and security contractors whose employees work on-site at these grocery stores or drug stores to provide \$5 per hour hazard pay to employees (up to a total wage of \$35 per hour). The emergency ordinance applies to grocery stores and drug stores with 500 or more employees worldwide including at least 20 employees in the City, and employees of janitorial and security contractors at such stores. Covered employers that voluntarily provided hazard pay may offset the employer-initiated hazard pay.

Background Information

The emergency ordinance includes anti-retaliation protections that, among other provisions, prohibit interfering with any right protected under the emergency ordinance and taking any adverse action against an employee for exercising rights protected under the emergency ordinance.

The Office of Labor Standards Enforcement (OLSE) will, within seven days of the effective date of the emergency ordinance, publish and make available on its website and through email to employers a notice suitable for employers to inform employees of their rights under this emergency ordinance, as well as information about City, state, and federal resources that employees negatively impacted by the public health emergency may qualify to receive. Employers must provide the notice to employees, in English, Spanish, Chinese, Filipino, and any language spoken by at least 5% of the employees at job site, within three days after it is published. The Agency will implement and enforce the emergency ordinance.

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Excess mortality associated with the COVID-19 pandemic among Californians 18-65 years of age, by occupational sector and occupation: March through October 2020

Yea-Hung Chen¹, Maria Glymour², Alicia Riley², John Balmes³, Kate Duchowny², Robert Harrison³, Ellicott Matthay², Kirsten Bibbins-Domingo^{2,3}

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Abstract

Background

Though SARS-CoV-2 outbreaks have been documented in occupational settings and though there is speculation that essential workers face heightened risks for COVID-19, occupational differences in excess mortality have, to date, not been examined. Such information could point to opportunities for intervention, such as workplace modifications and prioritization of vaccine distribution.

Methods and findings

Using death records from the California Department of Public Health, we estimated excess mortality among Californians 18–65 years of age by occupational sector and occupation, with additional stratification of the sector analysis by race/ethnicity. During the COVID-19 pandemic, working age adults experienced a 22% increase in mortality compared to historical periods. Relative excess mortality was highest in food/agriculture workers (39% increase), transportation/logistics workers (28% increase), facilities (27%) and manufacturing workers (23% increase). Latino Californians experienced a 36% increase in mortality, with a 59% increase among Latino food/agriculture workers. Black Californians experienced a 28% increase in mortality, with a 36% increase for Black retail workers. Asian Californians experienced an 18% increase, with a 40% increase among Asian healthcare workers. Excess mortality among White working-age Californians increased by 6%, with a 16% increase among White food/agriculture workers.

Conclusions

Certain occupational sectors have been associated with high excess mortality during the pandemic, particularly among racial and ethnic groups also disproportionately affected by COVID-19. In-person essential work is a likely venue of transmission of coronavirus infection and must be addressed through strict enforcement of health orders in workplace settings and protection of in-person workers. Vaccine distribution prioritizing in-person essential workers will be important for reducing excess COVID mortality.

Introduction

More deaths are occurring during the COVID-19 pandemic than predicted by historical trends [1-4]. In California, per-capita excess mortality is relatively high among Blacks, Latinos, and individuals with low educational attainment [4]. An explanation for these findings is that these populations face unique occupational risks because they may disproportionately make up the state's essential workforce and because

essential workers often cannot work from home [4-6]. Additionally, due to historical structural inequities, low-wage essential workers may be more likely to live in crowded housing [5-7], resulting in household transmission.

Despite the inherent risks that essential workers face, no study to date has examined differences in excess mortality across occupation. Such information could point to opportunities for intervention, such as workplace modifications and prioritization of vaccine distribution. Using time-series models to forecast deaths from March through October 2020, we compare excess deaths among California residents 18–65 years of age across occupational sectors and occupations, with additional stratification of the sector analysis by race/ethnicity.

Methods

We obtained data from the California Department of Public Health on all deaths occurring on or after January 1, 2016.

To focus on individuals whose deaths were most plausibly linked to work, we restricted our analysis to decedents 18–65 years of age. Death certificates include an open text field for "Decedent's usual occupation," described as "type of work done during most of working life." Retirement is not separately recorded. We processed the occupation information listed on the death certificates using an automated system developed by the National Institute for Occupational Safety and Health, which converts free-text occupational data to 2010 US Census codes. A team of 3 researchers manually categorized the resulting 529 unique codes into occupational sectors, with a focus on the 13 sectors identified by Cailfornia officials as comprising the state's essential workforce [8] and retail workers; we anticipated that these sectors would be most at risk. To ease presentation, we combined or eliminated some sectors, placing the defense, communications/IT, and financial sectors in the not-essential category (under the logic that it was particularly difficult to ascertain which workers in these sectors fully met the state's definitions for essential work) and placing chemical, energy, and water sectors in the facilities category. This resulted in the following 9 groups: facilities, food/agriculture, government/community, health/emergency, manufacturing, retail, transportation/logistics, not essential, and unemployed/missing. We defined 4 racial/ethnic groups: Asian, Black, Latino, and White, with the definition of Latino overwriting any racial designation in the death records. Our definition of Asian, Black, and White excludes individuals identified on the death certificate as multiracial.

We defined pandemic time as beginning on March 1, 2020. In some time-stratified analysis, we compared the months of March through May to the months of June and July. We chose the cutoff of June 1 because it is

roughly 3 weeks after the state's post-shutdown reopening in early May, and because we anticipate lags between policy, infection, and death. Similarly, the ending date of July 31 is roughly 3 weeks after the state ordered restaurants and indoor businesses to close in early July.

We conducted time-series analysis for each occupational sector, with additional stratification by race/ethnicity. For each group of interest (for example, each occupational sector of interest), we repeated the following procedure. We aggregated the data to months or weeks, using the weekly analysis for visualizations and the monthly analysis to derive summary measures. Following our previous work [4], we fit dynamic harmonic regression models with autoregressive integrated moving average (ARIMA) errors for the number of monthly/weekly all-cause deaths, using deaths occurring among the group prior to March 1, 2020. For each iteration, we used a model-fitting procedure described by Hyndman and Khandakar [9]. Using the final model, we forecast the number of deaths for each unit of time, along with corresponding 95% prediction intervals (PI). To obtain the total number of excess deaths for the entire time window, we subtracted the total number of expected (forecast) deaths from the total number of observed deaths. We obtained a 95% PI for the total by simulating the model 10,000 times, selecting the 97.5% and 2.5% quantiles, and subtracting the total number of observed deaths. We report in our tables the observed number of deaths divided by the expected number of deaths, as predicted by our models. We interpret these ratios as risk ratios for mortality, comparing pandemic time to non-pandemic time. We also estimated excess mortality for all specific occupations; for individual occupations, we defined excess mortality and risk ratios by comparing 2020 deaths to the arithmetic mean of 2018 and 2019 deaths.

We conducted all analyses in R, version 4.04.

Results

We estimate that from March 2020 through October 2020, there were 10,047 (95% PI: 9,229–10,879) excess deaths among Californians 18–65 years of age (Table 1). Relatively large numbers of excess deaths were recorded among workers in the facilities sector (1,681; 95% PI: 1,447–1,919) and the transportation/logistics sector (1,542; 95% PI: 1,350–1,738). Relative to pre-pandemic time, mortality increased during the pandemic by 39% among food/agriculture workers (risk ratio RR=1.39; 95% PI: 1.32–1.48), 28% among transportation/logistics workers (RR=1.28; 95% PI: 1.24–1.33), 27% among facilities workers (RR=1.27; 95% PI: 1.22–1.32), and 23% (RR=1.23; 95% PI: 1.18–1.28) among manufacturing workers.

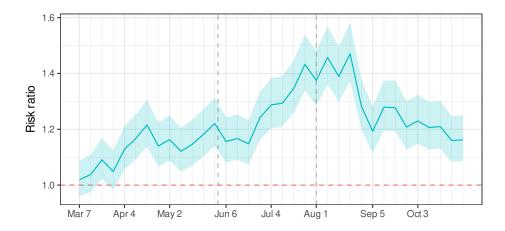
Table 1. Excess mortality among Californians 18–65 years of age, by occupational sector: March through October 2020.

	Excess deaths	Risk ratio ^a
Entire state	10,047 (9,229–10,879)	$1.22\ (1.20 - 1.24)$
Facilities	1,681 (1,447–1,919)	1.27 (1.22–1.32)
Food or agriculture	1,050 (897–1,204)	$1.39 \ (1.32 - 1.48)$
Government or community	$422 \ (324-520)$	$1.14 \ (1.11-1.18)$
Health or emergency	585 (523–647)	$1.19 \ (1.17 - 1.22)$
Manufacturing	638 (530–749)	$1.23 \ (1.18-1.28)$
Retail	646 (517–778)	$1.18 \ (1.14-1.23)$
Transportation or logistics	$1,542 \ (1,350-1,738)$	$1.28 \ (1.24-1.33)$
Not essential	1,167 (910–1,428)	$1.11 \ (1.08-1.14)$
Unemployed or missing	$1,969 \ (1,718-2,225)$	$1.23\ (1.19-1.27)$

^a Risk ratios are defined as the observed number of deaths divided by the expected number of deaths. They are interpretable as the risk ratio for mortality, comparing pandemic time to non-pandemic time.

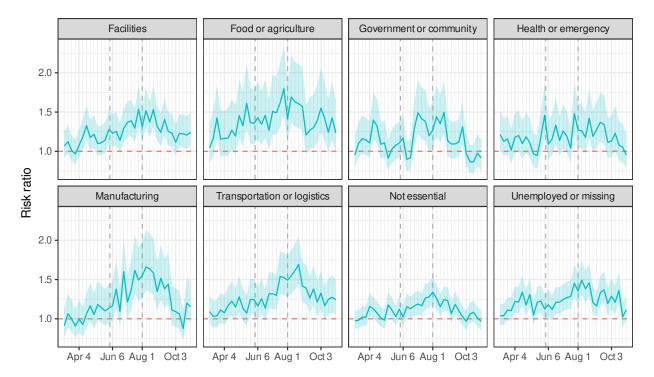
Relative increases in mortality varied over time (Fig 1) and by occupational sector (Fig 2). In March through May, there was a 14% increase in mortality among all working-age Californians (RR=1.14; 95% PI: 1.09–1.20) compared to a 31% increase among workers in the food/agriculture (RR=1.31; 95% PI: 1.17–1.49). In the months of June and July, the RR were particularly high in the food/agriculture (RR=1.61; 95% PI: 1.44–1.83), transportation/logistics (RR=1.52; 95% PI: 1.38–1.69), manufacturing (RR=1.52; 95% PI: 1.37–1.72), and facilities sectors (RR=1.44; 95% PI: 1.31–1.61).

Figure 1. Risk ratios for death, comparing pandemic time to non-pandemic time, among Californians 18–65 years of age, March through October 2020.



The dashed vertical lines mark boundaries between phases of California's major pandemic policies, lagged to acknowledge time from policy decisions to infection to death. The first phase corresponds to a period of sheltering in place, while the second phase corresponds to a period of reopening.

Figure 2. Risk ratios for death, comparing pandemic time to non-pandemic time, among Californians 18–65 years of age, by occupational sector, March through October 2020.



The dashed vertical lines mark boundaries between phases of California's major pandemic policies, lagged to acknowledge time from policy decisions to infection to death. The first phase corresponds to a period of sheltering in place, while the second phase corresponds to a period of reopening.

RR also varied by race/ethnicity (Table 2). Latino Californians experienced a 36% increase in mortality during the pandemic (RR=1.36; 95% PI: 1.29–1.44), with a 59% increase among Latino food/agriculture workers (RR=1.59; 95% PI: 1.47–1.75). Black Californians experienced a 28% increase in mortality (RR=1.28; 95% PI: 1.24–1.33), with a 36% increase for Black retail workers (RR=1.36; 95% PI: 1.21–1.55). Asian Californians experienced an 18% increase (RR=1.18; 95% PI: 1.14–1.23), with a 40% increase among Asian healthcare workers (RR=1.40; 95% PI: 1.33–1.49). Mortality among White working-age Californians increased by 6% (RR=1.06; 95% PI: 1.02–1.12) with a 16% increase among White food/agriculture workers (RR=1.16; 95% PI: 1.09–1.24).

Table 2. Risk ratios for mortality, comparing pandemic time to non-pandemic time, among California residents 18–65 years of age, by occupational sector and race/ethnicity, March through October 2020.

	All races	Asian	Black	Latino	White
All sectors	1.22 (1.20–1.24)	1.18 (1.14–1.23)	1.28 (1.24–1.33)	1.36 (1.29–1.44)	1.06 (1.02–1.12)
Food or agriculture	1.39 (1.32–1.48)	1.18 (1.05–1.33)	1.34 (1.19–1.54)	1.59 (1.47–1.75)	1.16 (1.09–1.24)
Transportation or logistics	1.28 (1.24-1.33)	1.26 (1.12-1.44)	1.35 (1.26-1.46)	1.40 (1.31-1.52)	1.10 (1.02-1.20)
Facilities	1.27 (1.22-1.32)	1.24 (1.08-1.46)	1.25 (1.17-1.34)	1.38 (1.27-1.51)	1.11 (1.04-1.20)
Unemployed or missing	1.23 (1.19-1.27)	1.08 (1.04–1.14)	1.31 (1.22–1.40)	1.31 (1.22–1.41)	1.09 (1.01-1.20)
Manufacturing	1.23 (1.18-1.28)	1.18 (1.06–1.33)	1.13 (1.01-1.30)	1.44 (1.34–1.57)	1.00 (0.92-1.10)
Health or emergency	1.19 (1.17-1.22)	1.40 (1.33-1.49)	1.27 (1.17-1.40)	1.32 (1.18-1.51)	1.02 (0.96-1.10)
Retail	1.18 (1.14–1.23)	1.10 (1.00-1.22)	1.36 (1.21–1.55)	1.40 (1.28-1.55)	1.08 (1.04–1.13)
Government or community	1.14 (1.11-1.18)	1.22 (1.07-1.41)	1.20 (1.09-1.33)	1.42 (1.32–1.53)	0.96 (0.89-1.04)
Not essential	1.11 (1.08–1.14)	1.14 (1.06–1.23)	1.23 (1.15–1.33)	1.29 (1.20–1.41)	$1.00\ (0.95-1.07)$

Per occupation (Table 3), risk ratios for mortality comparing pandemic time to non-pandemic time were highest among cooks (RR=1.60), packaging and filling machine operators and tenders (RR=1.59), miscellaneous agricultural workers (RR=1.55), bakers (RR=1.50), and construction laborers (RR=1.49).

Table 3. Risk ratios for mortality, comparing pandemic time to non-pandemic time, among California residents 18–65 years of age, by occupation, March through October 2020.

Code	Description	Deaths ^a	Risk ratio
4020	Cooks	828	1.60
8800	Packaging and filling machine operators and tenders	172	1.59
6050	Miscellaneous agricultural workers	617	1.55
7800	Bakers	104	1.50
6260	Construction laborers	1,587	1.49
8965	Production workers, all other	452	1.46
8320	Sewing machine operators	127	1.44
5610	Shipping, receiving, and traffic clerks	146	1.44
4250	Grounds maintenance workers	712	1.40
5240	Customer service representatives	562	1.37
4000	Chefs and head cooks	532	1.35
1107	Computer occupations, all other	136	1.35
9600	Industrial truck and tractor operators	364	1.34
3500	Licensed practical and licensed vocational nurses	109	1.34
0410	Property, real estate, and community association managers	157	1.33
4230	Maids and housekeeping cleaners	378	1.33
3930	Security guards and gaming surveillance officers	707	1.32
9130	Driver/sales workers and truck drivers	1,962	1.32
9830	Military, rank not specified	111	1.32
9620	Laborers and freight, stock, and material movers, hand	$2,\!550$	1.31
5940	Office and administrative support workers, all other	123	1.30
7750	Miscellaneous assemblers and fabricators	354	1.29
2010	Social workers	217	1.28
4040	Bartenders	148	1.28
2540	Teacher assistants	183	1.28

 $^{^{\}rm a}$ Number of deaths in pandemic time. The table is restricted to occupations with 100 or more pandemic-time deaths.

Discussion

Our analysis of deaths among Californians between the ages of 18 and 65 shows that the pandemic's effects on mortality have been greatest among essential workers, particularly those in the food/agriculture, transportation/logistics, facilities, and manufacturing sectors. Such workers experienced an increased risk of mortality of greater than 20% during the pandemic, with an increased risk of greater than 40% during the first two full months of the state's reopening. Excess mortality in high-risk occupational sectors was evident in analyses stratified by race/ethnicity, especially for Latino, Black, and Asian workers.

Our findings are consistent with a small but growing body of literature demonstrating occupational risks for SARS-CoV-2 infection. For example, a study of the UK Biobank cohort found that essential workers, particularly healthcare workers, had high risks for COVID-19 [10]. Similarly, numerous studies have documented SARS-CoV-2 infection among healthcare workers [11]. Our study, however, is unique in examining excess mortality and multiple occupational sectors. Though our work is in agreement with prior studies in finding pandemic-related risks among healthcare workers [11], it suggests that the risks are even higher in other sectors, such as food/agriculture and transportation/logistics.

This study is also among the first to examine deaths by both occupation and race/ethnicity. Occupational exposures have been postulated as an important contributor for disparities in excess mortality by race ethnicity, particularly because certain occupations require in-person work [4]. Though we tended to find the largest relative increases in mortality in each racial/ethnic group in the food/agriculture and transportation/logistics sectors, there was variation across race/ethnicity. For example, among Asians, the largest RR was in the health/emergency sector, even though the relative risk increases in that sector were relatively low among other racial/ethnic groups. Such differences may reflect cross-sector differences in demographics. There are, for example, a large number of Latinos who work in meat-processing facilities [12], consistent with data that show that Latinos make up a large proportion of COVID-19 cases in such settings [13]. Similarly, the large RR among Asians in the health/emergency sector could be due to the relatively large number of Filipino Americans in nursing professions [14]. During the pandemic in particular, such disproportionate representation may easily lead to cross-race variability in risk. A recent study found, for example, that Black workers are more likely to be employed in occupations that frequently require close proximity to others [15]. Inequalities in risk may be exacerbated by underlying structural inequities, such as immigration status or poverty [16].

Though non-occupational risk factors may be relevant, it is clear that eliminating COVID-19 will require addressing occupational risks. In-person essential workers are unique in that they are not protected by

shelter-in-place policies. Indeed, our study shows that excess mortality rose sharply in the food/agriculture sector during the state's first shelter-in-place period, from late March through May; these increases were not seen among those working in non-essential sectors. Complementary policies are necessary to protect those who cannot work from home. These can and should include: free personal protective equipment, clearly defined and strongly enforced safety protocols, easily accessible testing, generous sick policies, and appropriate responses to workplace safety violations. As jurisdictions struggle with difficult decisions regarding vaccine distribution, our findings offer a clear point of clarity: vaccination programs prioritizing workers in sectors such as food/agriculture are likely to have disproportionately large benefits for reducing COVID-19 mortality.

We acknowledge limitations to the study, including misclassification of occupation in death certificates due to coarse categories or inaccurate reports. The decedent's primary occupation is typically reported by the next of kin who may not be able to precisely describe the work. The primary occupation, which is reported on the death certificate, may not match the most recent occupation, which is more likely to drive occupational risk. These limitations would in general attenuate apparent differences across occupational sectors but are unlikely to account for our primary results.

Our study places a powerful lens on the unjust impact of the COVID-19 pandemic on mortality of working age adults in different occupations. Our analysis is among the first to identify non-healthcare in-person essential work, such as food and agriculture, as a predictor of pandemic-related mortality. Essential workers—especially those in the food/agriculture, transportation/logistics, facilities, and manufacturing sectors—face increased risks for pandemic-related mortality. Shutdown policies by definition do not protect essential workers and must be complemented with workplace modifications and prioritized vaccine distribution. If indeed these workers are essential, we must be swift and decisive in enacting measures that will treat their lives as such.

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From: Carroll, John (BOS)
To: Carroll, John (BOS)

 Subject:
 FW: Hazard pay - File No. 210181

 Date:
 Friday, February 26, 2021 10:46:11 AM

----Original Message-----

From: Board of Supervisors, (BOS) <board.of.supervisors@sfgov.org>

Sent: Wednesday, February 24, 2021 9:12 AM To: BOS-Supervisors bos-supervisors@sfgov.org

Cc: Calvillo, Angela (BOS) <angela.calvillo@sfgov.org>; Somera, Alisa (BOS) <alisa.somera@sfgov.org>; Ng,

Wilson (BOS) <wilson.l.ng@sfgov.org>

Subject: FW: Hazard pay

----Original Message-----

From: kathleen mcintyre <kate_mcintyre_07@yahoo.com>

Sent: Wednesday, February 24, 2021 1:03 AM

To: Board of Supervisors, (BOS) <box>

dos.dos.gov.org

sigov.org

Cc: katie.crespo@yahoo.com

Subject: Hazard pay

This message is from outside the City email system. Do not open links or attachments from untrusted sources.

I work at Lunardi's Market #2 in the deli. Raising the hazard pay is wonderfully helpful, because not only on a daily basis do I encounter people who don't wear their mask properly or at all, just around the neck. But people shove their phones in our faces. If a shield can't be provided to protect those who have to serve food then hazard pay should be increased.

Sincerely Katie deli #2

President, District 10 BOARD of SUPERVISORS



City Hall 1 Dr. Carlton B. Goodlett Place, Room 244 San Francisco, CA 94102-4689

Tel. No. 554-6516 Fax No. 554-7674 TDD/TTY No. 544-6546

Shamann Walton

PRESIDENTIAL ACTION						
Date:	2/25/2021					
То:	Angela Calv	illo, Clerk of	the Boar	rd of Supervisors		
Madam Cler Pursuant to	rk, Board Rules	s, I am hereb	y:			
▼ Waivin	g 30-Day Ru	le (Board Rule N	o. 3.23)			
File l	No.	21018		Walton		
Title.		74 N		(Primary Sponsor)		
Title.	Emergenc	y Ordinance	- COVID	-Related Hazard Pay		
☐ Transfer	rring (Board Ru	le No 3.3)				
File l	No.					
Title.				(Primary Sponsor)		
Fron	n:				Commi	ittee
To:					Comm	
☐ Assignii	ng Temporar	y Committee	e Appoin	tment (Board Rule No. 3.1)		
Supervi	sor:		Repl	acing Supervisor:		
]	For:					Meeting
	(D	Pate)		(Committee)		Titeeting
Star	t Time:	End T	ime:			
Ten	nporary Assig	gnment: O I	Partial	• Full Meeting		

Shamann Walton, President

Board of Supervisors

Introduction Form

By a Member of the Board of Supervisors or Mayor

I hereby submit the following item for introduction (select only one):

Time stamp or meeting date

✓ 1. For reference to Committee. (An Ordinance, Resolution, Motion or Charter Amendment).				
2. Request for next printed agenda Without Reference to Committee.				
3. Request for hearing on a subject matter at Committee.				
4. Request for letter beginning: "Supervisor	inquiries"			
5. City Attorney Request.				
6. Call File No. from Committee.				
7. Budget Analyst request (attached written motion).				
8. Substitute Legislation File No.				
9. Reactivate File No.				
10. Topic submitted for Mayoral Appearance before the BOS on				
Please check the appropriate boxes. The proposed legislation should be forwarded to the following	j:			
☐ Small Business Commission ☐ Youth Commission ☐ Ethics Commis	ssion			
Planning Commission Building Inspection Commission				
Note: For the Imperative Agenda (a resolution not on the printed agenda), use the Imperative	Form.			
Sponsor(s):				
Walton, Haney, Preston, Ronen				
Subject:				
Emergency Ordinance - COVID-Related Hazard Pay				
The text is listed:				
Emergency ordinance to temporarily require certain grocery stores, drug stores, and property service grocery stores and drug stores to pay employees an additional five dollars per hour during the public emergency related to COVID-19.				
Signature of Sponsoring Supervisor: /s/ Shamann Walton				

For Clerk's Use Only