An Analysis of Economic Interventions to Reduce Risk Factors and Costs of Chronic Health Conditions

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I. Executive Summary

Chronic health conditions are the costliest in lives and dollars and most adversely impact people with little or no income. They also account for much of the health disparities between socioeconomic, race, and ethnic groups. For example, the poorest one percent of Americans die an average of 14.6 years younger than the richest 1 percent, because of the disproportional prevalence of chronic health conditions among poor people, and the risk factors in their communities. The policy problem is their inferior economic resources to practice healthier behaviors and reduce risk factors that lead to chronic conditions and premature death. Therefore, in this paper I examine two policy proposals for California to enhance economic resources as a means of mitigating risk factors of chronic health conditions contributing to the higher likelihood of premature death and associated costs for lifelong care.

I begin by summarizing what is known about the social determinants of health, i.e., the disparities in health outcomes and cost related to chronic health conditions that disproportionately impact the lives of impoverished people, many who are people of color. I first, introduce the social determinants of health, which are the conditions in which people live, learn, work and play that affect their health risks and outcomes. Second, In my academic review of relevant literature, I found that economic factors are often the strongest correlated variables when comparing different social determinants of health. I then examine two interventions, regional living wages and Universal Basic Income (UBI), aimed at reducing such disparities.

More specifically, the rest of the paper reviews how a living wage policy and/or UBI can increase monthly income and lead to reductions in health risk factors that contribute greatly to the onset of lifelong chronic health conditions. I discuss how any increase in dollars and the dependability of monthly income above subsistence can reduce adverse health risk factors like poor nutrition, smoking, alcohol and substance abuse, homelessness, and chronic health complications associated to economic insecurity and financial stress. I finish with a recommendation between the two economic policy interventions.

II. Introduction

The social determinants of health are the conditions in which people live, learn, work and play that affect their health risks and outcomes. Social determinants of health include specific variables within the categories of economic stability, educational attainment, social and community context, neighborhood and physical environment, and access to healthcare (Artiga & Hinton, 2018). The Institute for Clinical System Improvement (2014) estimates that over 50 percent of health factors are rooted in a person's zip code, and that his or her access and use of health facilities affects a smaller 20 percent of a person's overall health.

The importance of social determinants of health is sufficiently recognized to promote public policy activity and interventions. California State Senator Dr. Richard Pan (CA-06) introduced legislation in December 2020 to enforce equity as a priority in policy for the California Department of Public Health. Institutional racism disenfranchises black, indigenous, and people of color (BIPOC), and creates education gaps that can lead to lower wages, worse housing, food insecurity, over incarceration, and health disparities. The California Health Care Foundation annual report notes persistent health disparities between races and ethnicities, as well as socioeconomic groups for lifelong chronic physical and behavioral health conditions (California Health Care Foundation, 2019). In California, there are disproportionately more BIPOC in poverty than white people in poverty (Danielson, Thorman, & Bohn, 2019) and their economic circumstances define greater disparities in earnings, housing, education, neighborhood amenities, and access to healthcare. For example, Latino and Black people are more likely to live in worse poverty than white people (22.9% and 18.2% vs 12.8%) even after accounting for different regional costs of living in each county and the available resources from California social safety net programs (Danielson, Thorman, & Bohn, 2019).

In my academic review of relevant literature, I found that economic factors are often the strongest correlated variables when comparing different social determinants of health. Additionally, the institutional factors, such as historical racial discrimination that impacted education, income, and wealth

gaps created barriers to health literacy and access, which directly impact racial health disparities seen today.

In 2015, research by the Human Impact Partners found that an incremental increase of the California minimum wage to 15 dollars an hour would save approximately 400 premature deaths for low-income people annually. There is already good reason to believe that increases in income for the poor can have beneficial health effects such as preventing premature deaths. The national CDC defines a death before age 75 as a premature death (McKenzie, Pinger, & Seabert, 2018). My aim in this paper is to be much more specific and precise about the effects of two possible economic interventions in California: setting a living wage and establishing universal basic income (UBI).

I am presenting this policy paper to staff in the "Health in All Policies" initiative in the Department of Public Health. The Health in All Policies initiative supports improved health outcomes and health equity through collaboration between public health practitioners and those nontraditional partners who have influence over the social determinants of health. Alleviating some, most, or all poverty with economic interventions, such as living wages or UBI, can be effective to reduce premature deaths, lifelong chronic health conditions, and potentially reduce systemic and personal healthcare costs. Alleviating poverty is also equitable policy for low-income Californians. Lifelong chronic health conditions like heart disease, diabetes, obesity, and serious mental illness are among the most expensive to treat and disproportionately impact low-income people because of prominent health risk factors connected to poverty. Kelsey Waddill (2020) wrote, "The [United States] Center for Disease Control and Prevention (CDC) estimates that 90 percent of national healthcare spending goes toward chronic disease management and mental healthcare." Waddill (2020) reports that Humana, a healthcare provider, saw the best health outcomes from applying methodology that accounts for social determinants of health as well as clinical approaches in order to support Humana members manage chronic conditions. California can improve health outcomes, and reduce healthcare costs for low-income groups by instituting policies like a living wage or UBI.

A living wage is a minimum wage that meets the regional cost of living in metropolitan areas based on typical expenses to meet minimum standards of living (Massachusetts Institute of Technology, 2021). It is also a policy to require corporate social responsibility of the private sector to pay wages that don't have to be subsidized by public services like CalFRESH to meet minimum living standards. Nationwide, over 9 million low-wage employees of large corporations participate in the SNAP food assistance program according to a study by the federal Government Accountability Office in October 2020.

UBI is regular payments made to all residents of California from the government, without a means test, to provide them with a standard of living above subsistence (Stanford Basic Income Lab, 2021). UBI is a public sector policy option to alleviate poverty and provide a standard of living above subsistence that can help improve lifelong health conditions and outcomes.

These two economic interventions are policy options to address poverty as a correlated factor of health disparities among socioeconomic groups and the racial and ethnic groups that they are comprised of. There is a traditional understanding of biological factors upon health outcomes that children inherit genetically, however the last 20 years of research provided evidential support of strong social and environmental effects created from socioeconomic situations that a child grows up in (Braveman & Gottlieb, 2014). Children are born into the socioeconomic conditions of their parents, therefore their parental income and that of a childhood neighborhood dramatically impact their health outcomes (Chetty, 2020). The social determinants of health are important because they provide evidential support as to why there are health disparities across racial and demographic groups, with the assumption that biological factors do not vary *only* by race or ethnicity.

III. Economic Policy Implications on Health Outcomes: Literature Review

There is a great body of literature about the social determinants of health. I included 28 citations for different studies in this paper to address reducing economic insecurity as preventative public health policy and reducing chronic health conditions. This paper includes studies and reports that were archived

with the National Institute of Health and public health journals, or researched within the University of California, Harvard University, or research centers such as the Urban Institute and the Center on Society and Health. There is great consistency among these reports and studies that income-related policies can improve health outcomes. However, it is my observation that many studies are constrained by how much money they have to conduct quasi experiments, or make direct payments. The few such quasi-experimental studies show positive outcomes. For example, the Stockton guaranteed income pilot in 2019 found positive direct impacts from temporary $500 monthly payments for low-income individuals, and it stands to reason that an increase to ongoing $1,000 monthly payments would multiply positive outcomes. Furthermore, many studies about increasing hourly wages recognize small percentages of change according to one or two dollar increases to a minimum wage that is still below living wage standards. We do not know what exact impact that alleviating poverty, above subsistence, with a regional living wage or UBI can have on health outcomes beyond modeled estimation. In this section, I review a few regression studies that measure notable and consistent positive correlation between an individual's socioeconomic status and their health condition.

A systemic review of 29 studies by Craig Evan Pollack, et. al (2007) found that greater income and wealth was correlated with greater life expectancy. Additionally, a study from 2016 found a 12 percent difference in the rate of "poor health" between affluent and poor counties in the U.S. while researching chronic health conditions (Shaw, Theis, Slef-Brown, Roblin, & Barker, 2016). A key finding of Pollack, et. al (2007) was that closing the income and wealth gap will require new policies and programs at the state and national levels, and across sectors to increase health equity and reduce racial and ethnic health disparities. Wealth and income inequality gaps worsened since the 1960's and concentrated most Americans as low-wage earners, especially BIPOC. In 2019, approximately 51 percent of Californians earn less than $15 an hour, based on 2080 hours of labor annually (U.S. Census, 2021), which is the state's target minimum wage by 2023.

Nine cited studies report that people with no or low-income and BIPOC are at greater risk for one or more chronic physical and mental health conditions (Ramos-Yamamoto & Davalos, 2021; California

Health Care Foundation, 2019; Bay Area Regional Health Inequities Initiative, 2021; Case & Deaton, 2020; Cimini, 2019; Cunningham, Green, & Braun, 2018; Gustafsson, et al., 2014; Leigh, Leigh, & Du, 2019; Oates , et al., 2017). A study by the Commonwealth Fund (Cunningham, Green, & Braun, 2018) found that annual healthcare spending among people with multiple chronic conditions were $2,000 more expensive annually for people closer to poverty. The annual expenses were generally related to people with no or low-income spending $262 more per visit (Cunningham, Green, & Braun, 2018) on inpatient or emergency departments for services because 73.7 percent of uninsured people could not afford health care coverage (Tolbert, Orgera, & Damico, 2020) as well as less access to care in low-income neighborhoods (California Health Care Foundation, 2019). The California Health Care Foundation (2019) reported that preventable hospitalizations to address chronic conditions are greatest among impoverished and BIPOC communities. Economic security, as a social determinant of health, also impacts educational attainment, housing security, neighborhood pollution, risk of crime and violence, and reasonable access to health facilities.

In four regression analysis studies that I examined of social determinants of health, economic factors showed the greatest correlation to reported negative health outcomes. Similarly, Ahnquist, Wamala, and Lindstrom (2012) evaluated the effects of social capital and economic capital in a direct comparison through a multivariate logistic regression model. Social capital can be difficult to measure, but several studies included data of trust in communities, social collaboration (Ahnquist, Wamala, & Lindstrom, 2012), and rates of neighborhood crime and segregation (Johnson, Schoeni, & Rogowski, 2012). Economic capital is easier to quantify with statistics about individual and neighborhood income, rates of employment, or enrollment in welfare programs. Ahnquist, Wamala, and Lindstrom (2012) found that economic hardship showed a greater negative effect upon adult health outcomes among those who participated in the Swedish National Public Health Survey. The Odds Ratio of self-reported poor health was greater than 3.07 to 1 for the presence of economic hardship in Sweden (Ahnquist, Wamala, & Lindstrom, 2012). Odds Ratios express the likelihood of a difference between an impacted sample compared to a similar control group. The Ahnquist, Wamala, and Lindstrom (2012) reviewed Swedish

data that still revealed health disparities between socioeconomic group, despite a lot of homogeneity and nationally subsidized healthcare system.

In cross sectional studies, the economic factors that are most commonly isolated as affecting health outcomes are economic hardship (or experience of poverty), household income, and employment statuses (Ahnquist, Wamala, & Lindstrom, 2012; Gustafsson, et al., 2014; Kaufman, Salas-Hernandez, Komro, & Livingston, 2019). If a study uses a longitudinal approach, then a research team also accounts for parental income and neighborhood poverty levels (Gustafsson, et al., 2014; Johnson, Schoeni, & Rogowski, 2012). Per E. Gustafsson, et. al (2014) completed a second study of social determinants of health that utilized Swedish data that measured how the longitudinal health outcomes related to neighborhood characteristics. Gustafsson, et. al found that men had a higher accumulation of socioeconomic disadvantage that was correlated to worse health indicators, whereas women were exposed to slightly higher cumulative neighborhood disadvantage and social and material adversity, but it was less impactful upon their allostatic load. This study is very reliable because the dependent variable, allostatic load, was based on health records of 12 health indicators of middle-aged adults and then compared to census data instead of a self-reported health status. Allostatic load is based on the following 12 biological parameters collected at age 43 years: systolic blood pressure, diastolic blood pressure, body mass index, waist circumference, fasting glucose, total cholesterol, high-density lipoprotein cholesterol, triglycerides, apolipoprotein A1, apolipoprotein B, C-reactive protein, and cortisol area under the curve. Many of these variables are related to obesity, diabetes, and additional long-term cardiovascular complications. Studies from multiple countries with a wide variety of social and economic policies show higher correlation to negative health risks and outcomes by middle age according to the economic quality of neighborhood characteristics (Gustafsson, et al., 2014; Johnson, Schoeni, & Rogowski, 2012). The accuracy of their data helps support the social determinants of health theory that neighborhood characteristics, including rates of poverty are likely to affect health over a lifetime.

In a more recent review published in December 2020, Anne Case and Angus Deaton found that a 4-year college degree, which is tightly correlated to higher lifetime earnings, is the primary factor of a

longer life. Case and Deaton's (2020) research of mortality rates between 1990 and 2018 in the U.S. show a decrease, but not elimination, in racial disparities overtime and that educational attainment was the most notable factor for a longer life expectancy. These findings represent a similar generational trend of 45.2 percent more demographic diversity in American universities since 1996 (National Center for Education Statistics, 2021) as well as the research from Harvard economics professor Raj Chetty. He developed the "Opportunity Atlas" that compares average socioeconomic attainment of different demographic groups in each census tract across the United States, and found that higher educated census tracts have better educational outcomes overall regardless of race or ethnicity.

In this section, I addressed the notable correlation between an individual's health and the economic circumstance of individuals and their neighborhoods. An individual's poor health is tightly correlated to the fewer economic resources they have early in life, and in adulthood. Economic factors, and therefore economic interventions, can have outsized impacts because much of a person's life (housing, education, transportation, nutrition, and healthcare) depends on what they can afford, or choose to prioritize for themselves and their family.

IV. Living Wage Policy

According to the Massachusetts Institute of Technology's (MIT) "Living Wage Calculator," there is no county in California where the state's minimum wage meets the regional cost of housing to live independently (Massachusetts Institute of Technology, 2021). In 2018, Pew Research Center measured the real value of a $15 minimum wage in metropolitan regions and California had the highest discrepancy between the lowest and highest cost of living within a state. The real value of a $15 hourly wage in the Bay Area was as low as $11 because of locally driven costs of living, while in the Central Valley was actually close to $15 (Desilver, 2018). However, California's minimum wage will not reach $15 an hour until 2022, and the California Department of Public Health estimated $26.33 an hour is an estimated statewide living wage now using 2010 data (Healthy Communities Data and Indicators Project, 2013). The purpose of this paper is to examine the effects of health outcomes from increasing hourly wages

above a standard of subsistence. Therefore, for this paper I chose to examine the effects of health from incremental increases of minimum wages in the United States, because living wages that are present in Europe are also supported with different social and healthcare policies.

A notable example of a living wage policy in the United States is that used by Minneapolis, Minnesota. The city of Minneapolis requires a living wage. In an email correspondence, Minneapolis City Manager of Employment and Training Mark Brinda, PhD. wrote that the city's policy was instituted in part to increase rates of healthcare insurance coverage. Minneapolis required "employers to pay an hourly wage of 110% of the federal poverty rate for a family of four at 2080 hours per year if health coverage is offered to the employee. If not, the requirement jumped to 130% of the poverty rate for a family of four at 2080 hours per year to allow them to afford private coverage" (Brinda PhD, 2021). Unfortunately, Minneapolis does not have specific health outcome data tied to instituting the living wage policy. In the next section, I will review literature that researched and evaluated that raising a minimum wage can reduce behavioral risk factors for developing more expensive, lifelong chronic health conditions.

Health Outcomes of Living Wages and Minimum Wage Increases Literature Review

First, I want to review the literature about health impacts from increasing a minimum wage. I will examine 11 studies that mark reduction in risk factors for chronic health conditions and premature death. The latest incremental increase of the California minimum wage started in 2017 with a five-year plan to go from ten dollars per hour to $15 per hour with the passage of SB 3 (Leno) in 2016. This was largely because of a push from fast food employees across the state and their policy campaign "Fight for 15." The recent minimum wage policy push started in 2011 when California's minimum wage was eight dollars per hour. For the third bill proposal in 2014, California commissioned an analysis by Human Impact Partners to review the health impacts of raising the state minimum wage. Human Impact Partners (2015) found that raising the state minimum wage would reduce 400 premature deaths annually in low-income communities. Dietary risk, obesity, tobacco, and high blood pressure attribute to the most "Years of Life Lost" because of their impact on cardiovascular disease, diabetes, and cancer according to the California Department of Public Health data recorded since 1990 (California Department of Public Health, 2021).

The literature reviewed in this section suggests that the saved premature deaths are likely from direct reductions of risk factors for chronic health conditions, such as poor nutrition, smoking, alcohol abuse, and mental health complications.

Improve Nutrition

Poor nutrition in low-income communities is often attributed to two factors, which are due to a poor-quality neighborhood known as a "food desert" with little access to fresh fruit and vegetables, and that healthy food is often more expensive than unhealthier fast food for equivalent caloric consumption. These two factors create health disparities in low-income and minority racial and ethnic groups which leads to higher rates of diabetes and obesity in all life stages. Diabetes and obesity are two high-cost chronic conditions that exacerbate other health complications and increase costs (Waters & Graf, 2018).

The California Health Care Foundation (2019) reported above a 11 percent difference in the rate of obesity, and as much as a 7 percent difference in the rate of diabetes among Black and Latinx communities, compared to white people in California. The Black and Latinx communities are disproportionally twice or three times, respectfully, more likely to be within 200 percent of the federal poverty line than their white neighbors. Low-income neighborhoods that are food deserts also include a higher concentration of cheap fast food restaurants and liquor stores (Aron, et al., 2015).

Harvard Economics professor Dr. Raj Chetty researched the federally funded "Moving to Opportunity" program that subsidized moving expenses and higher rent expenses to move people to new neighborhoods to improve life-long outcomes among low-income communities. For some, the only way they could move to economically affluent and healthier neighborhoods, was with federal grant funding. Moving expenses can be a barrier for individuals or families to leave areas that are food deserts. The inability of low-income families to move disrupts the supply and demand of the housing market, and can further segregate neighborhoods by socioeconomic class, race and ethnicity. Dr. Chetty found that children have better long-term outcomes when they are moved to a higher educated and healthier neighborhood earlier in their life, particularly before age 10 (Chetty, 2020). However, increasing the minimum wage, as high as a regional living wage, does not mean low-wage earners could afford the most

affluent, healthiest, or safest neighborhoods, but they will have more options according to their budget and that can also impact aggregate demand for better amenities and lifestyle options.

Smoking Cessation

Low-income and minority communities have also been the targets of the tobacco industry for a long time. In 1992, an R.J. Reynolds executive was quoted by a journalist saying, "we reserve the right to smoke for the young, the poor, the black and stupid" (Truth Initiative, 2020). It is important to note the direct racism of a racially motivated target audience, and also the structural racism that disproportionately impacts minority communities who are impoverished, or attend underfunded schools (Lombardo, 2019). According to the CDC, 21.4 percent of individuals with household income less than $35,000 smoke cigarettes, compared to 7.1 percent of individuals with annual income greater than $100,000.

J. Paul Leigh, et. al. (2019) found that one of the strongest findings from a review of 33 studies for improved health outcomes by raising a minimum wage was a 1.4 percent reduction of smoking for each one dollar increase. Smoking is a habit that is often correlated to frequent instances of stress, including financial stress. Matthew Desmond (2019) wrote in *The New York Times Magazine*, "higher wages ease the grind of poverty, freeing up people's capacity to quit," after interviewing a few minimum wage workers. Both smoking and alcohol consumption can be behaviors to cope with stress.

Reduce Alcohol Consumption

Low-income neighborhoods that are food deserts also have a higher concentration of liquor stores (Aron, et al., 2015) and low-income people are the target markets for advertising (Woolf, et al., 2015). There are also three times higher rates of alcohol and substance use disorder among people with little or no income (Lynch, Clemans-Cope, & Winiski, 2019; California Health Care Foundation, 2019). Families with fewer resources face financial barriers, among many others, to obtaining assistance with lifestyle changes required for alcohol and drug dependence (Woolf, et al., 2015) which increases premature deaths.

Reduce Suicide and Mental Health Disparities

One study recently made headlines in *The Economist* in early 2020 after it concluded that raising the minimum wage in the United States would reduce the number of suicides (Kaufman, Salas-

Hernandez, Komro, & Livingston, 2019). The study by John Kaufman, et. al (2019), supported that economic factors are correlated to health outcomes by measuring the differences between state and federal minimum wages and the amount of suicides per state over a 25-year period. The study found that men with less than a college degree who earned the least income died by suicide the most. Kaufman, et al (2019) isolated economic hardship, by controlling for other factors according to their Poisson regression model. The 2019 study found that each additional one dollar increase to the minimum wage can reduce suicide by three to six percent, depending on the region. Kaufman, et. al. (2019) did not complete this study with a direct comparison to social factors, like notable celebrity suicides, that could have also impacted the number of suicides over the same 25-year period.

Suicide victims do not always have a serious mental illness, but serious mental illness is three times more prevalent among those closest to poverty (California Health Care Foundation, 2019). Approximately 80 percent of individuals living with serious mental illness have little or no income because of unemployment in the United States (National Alliance on Mental Illness, 2014). Economic insecurity is a factor for chronic stress that can increase symptoms and the onset of psychosis or depression. Kaufman's, et al. (2019) study points toward modifying economic policy that can impact health and mortality rates in a major way by easing economic hardship of earning minimum wages, even if below a living wage standard.

There are also studies cited by Leigh, et. al. (2019) that existing (?) state minimum wage policy does not harm health; however, their control group is also comprised of impoverished individuals who do not gain money. I think these studies would have clearer results if the control group was affluent, and they measured the health outcomes related to reduced income. Estimating no harm of a minimum wage is like estimating that little water or little food does not harm health, but consuming more water or food can be healthier, and also costlier.

Increasing the minimum wage, as high as a living wage, can reduce premature deaths in low-income communities by reducing risk factors like poor nutrition, smoking, alcohol abuse, and suicide according to the recent literature.

Costs of a Living Wage Policy

A living wage is an economic policy option that can impact health outcomes and therefore, I feel it is important to also address some economic critiques of it. Governor Gavin Newsom established the Future of Work Commission in 2019 to study, understand, analyze and make recommendations regarding future labor policy in the state. The Commission found that less than half of Californian workers currently have a "higher quality" job that pays a living wage and provides stable, predictable pay. The Commission recommends to raise wages for the lowest paid workers to a living wage to eliminate working poverty (Future of Work Commission, 2021). National Public Radio's *Planet Money Newsletter* reviewed a study that revealed living in poverty consumes more mental energy and can make labor 6.2 percent less productive (Rosalsky, 2021). In this section, I will provide my analysis of living wages, keeping in mind that according to the cited studies above, more income reduces health risk factors for chronic conditions and reduces premature death.

An economic principle of an efficient private sector business is to ensure that all costs are accounted for, including externalities, and paid for at a marginal rate. A regional living wage would mean labor expenses are driven by the market equilibrium price of minimally necessary expenses for employees such as housing, utilities, food, and healthcare. Living wages are the most efficient rate of pay for labor and are a practice of corporate social responsibility to cover true costs of local labor and externalities. If businesses do not account for these costs, or otherwise disregarded them, then they become problematic and require action from the public sector. If California institutes a regional living wage policy, it would be requiring the private sector to reduce the chronic financial stress of general unaffordability impacting low and extremely-low income earners.

Currently, 35 California cities or counties require even small business, with fewer than 26 employees, to pay above the statewide minimum wage requirement (Paycor, 2021). These municipalities are attempting to require higher wages to meet their higher than average regional costs of living. Small and extremely small businesses in these areas already have to pay above the statewide minimum wage to attract employees from their local labor pool who need to meet their regional costs of living.

The staunchest opponents against paying living wages are usually corporations, often represented by chambers of commerce. Large corporations, and their executives, are well-funded and politically active to obstruct increases to the minimum wage, and are also in the best position to afford paying living wages. The Government Accountability Office found in a 2020 investigation that many large corporations choose to keep wages low, and have their employee's necessary costs like housing, healthcare, or food subsidized by public assistance programs (Government Accountability Office, 2020). Taxpayers, instead of businesses, are paying for the publicly subsidized healthcare and food assistance for these minimum wage workers. My MPPA economics professor duly noted that there is no such thing as a "free lunch," all expenses are paid by someone, even if indirectly.

Economists agree there will be some initial lay-offs resulting from a minimum wage increase. However, Zoe Willingham (2021) insists that the spending power of more discretionary money in the pockets of nearly low-income Californians would increase aggregate demand and encourage permanent hiring. The Stockton guaranteed income pilot project provided evidence that more money for low-income people is used for necessary goods and is spent quickly. The velocity of money spent by poor people is greater than individuals and families with wealth and savings (Farr, 2020). If businesses increase monthly income for low-income earners then the private sector will stimulate and sustain the economy for normal goods and services.

In California, low wage workers are not primarily teenagers, despite popular opinion to the contrary. In fact, low wage earners are disproportionately women between the age of 20-54 years old, and over 74 percent are BIPOC (UC Berkeley Labor Center, 2021). Black and Latino adults also comprise the majority of Californians who are considered "rent burdened," paying over 50 percent of their monthly income for housing (Kimberlin, 2017). If a living wage was anchored to the regional median housing costs, which are often an individual or family's largest monthly expense in California, then cities and counties could better protect housing insecure renters and homeowners from homelessness.

Low and extremely-low-income earners are at the greatest risk of homelessness because of the current housing shortage that makes housing more expensive (Bay Area Council Economic Institute,

2019). In California, every city and county are responsible to meet their regional housing needs, and can already adjust their municipal minimum wage to match regional costs of living that are tightly correlated to housing availability.

Living Wage Conclusion

A minimum wage policy is a price floor above the market equilibrium point and creates market inefficiencies. However, such inefficiencies can be covered by the public sector on behalf of the private sector. An organization is practicing corporate social responsibility to labor and taxpayers by paying the equilibrium price for labor that is a regional living wage. In this section, I addressed prominent research of health outcomes related to increasing hourly wages and overall income. I also presented an evaluation of living wages as an economic policy option to help alleviate poverty and match regional costs of living

V. UBI Policy

There are no past examples in the United States of a city, county, or state government providing a UBI to support income above a level of subsistence. The most notable policy pilot was tried in Stockton, CA in 2019. It was privately funded by philanthropy, and covered only a portion of city residents. A key finding of the preliminary analysis of the first year of $500 monthly payments to 125 Stockton residents was that recipients of guaranteed income were healthier, showing less depression and anxiety and enhanced wellbeing (West, Baker, Samra, & Coltrera, 2021). I chose UBI as a policy alternative because many reports and studies about raising minimum wage attribute their findings to an overall rise in general monthly income. Unconditional cash payments increase monthly income as well, and without a work requirement.

Health Outcomes of UBI Literature Review

First, I want to review the literature about UBI policy, I will examine initial reviews of the Stockton pilot project by former Mayor Tubbs, as well as proposals from New York City mayoral candidate Andrew Yang, and California Assemblymember Evan Low. The Stockton pilot project has

inspired 43 other Mayors across the U.S. and some state legislatures so far to attempt a guaranteed income or a UBI pilot in 2021 or further in the future.

Stockton Economic Empowerment Demonstration

Former Stockton Mayor Michael Tubbs founded the Stockton Economic Empowerment Demonstration (SEED) to pay 125 adult residents an unconditional $500 for 24 months as a philanthropically funded pilot project. Tubbs grew up as a Stockton native and was intimately familiar with the city's reputation as one of "America's Most Miserable Cities" according to Forbes (Badenhausen, 2011). The SEED project was an initial test of a "guaranteed income" as a policy to ease unaffordability in a poverty-stricken community. The SEED project was privately funded, had a limited budget and could not provide a truly unconditional, or universal payment. The randomly selected adult residents had to reside in a neighborhood with a median income less than $45,033 (West, Baker, Samra, & Coltrera, 2021). It was met with a lot of political opposition because it was believed that unconditional cash payments would be used irresponsibly because it was not earned from labor. The preliminary findings of the first year of spending shows otherwise. A majority of the debit card charges were for necessary items like food, clothes, utilities, and transportation (West, Baker, Samra, & Coltrera, 2021).

West, Baker, Samra, and Coltrera (2021) did a comparative analysis to an almost identical control group of Stockton residents and found that "guaranteed income reduces income volatility." Their reduction of stress from financial instability was directly correlated to better health outcomes. A guaranteed income increased personal agency to choose healthier behaviors and enhance overall wellbeing. Most notably, were the comparisons between psychological distress that reported lower rates of depression and anxiety because of increased monthly income (West, Baker, Samra, & Coltrera, 2021).

The SEED project was only funded for 24 months and was established two years ago, so longitudinal studies are not possible. The importance of the Stockton pilot project was to provide evidence that low-income individuals are not more irresponsible with their discretionary income, but that they do not have enough income to change their circumstances. The SEED project provided supplemental income and actually created a 12 percent increase in full-time employment among recipients, that

furthered eased financial hardship (West, Baker, Samra, & Coltrera, 2021) contrary to the belief that it would disincentivize full-time employment.

The Andrew Yang New York City Proposal

New York City mayoral candidate Andrew Yang is currently running his campaign on large progressive policy proposals. Yang first presented UBI as a policy proposal in his book *The War on Normal People* in 2018 before his presidential campaign for the 2020 election. Among many things, Yang is proposing instituting a People's Bank of New York City that would be able to provide supplemental income to residents affected by deep poverty (Yang, 2021). He wants to pay up to $2,000 annually for low- and extremely-low-income residents because they are at the greatest risk of food and housing insecurity (Yang, 2021). Yang's UBI proposal takes aim at increasing food and housing security that can reduce health complications from poor nutrition and homelessness.

Homelessness dramatically worsens health complications from unsheltered environmental exposure, poor hygiene, the likelihood of substance abuse, malnutrition, and inaccessible healthcare. For example, a medical study in 2016 by Laura Kurtzman found that a 50-year-old homeless person has physical health complications comparable to a geriatric 80-year-old person. When cities and counties protect low and extremely-low-income communities from homelessness, they are reducing the number of high-cost Medi-Cal beneficiaries with multiple comorbid chronic conditions. The most expensive beneficiaries to care for often have three or more comorbid conditions, with at least one behavioral health diagnosis. They represent 7 percent of beneficiaries and comprise 76 percent of MediCal costs to care for their chronic and comorbid health conditions (Califronia Health Care Foundation, 2010).

The *Aspen Institute Economic Strategy Group* (2019) recommended that governments should use UBI as a policy response to supplement low- and extremely-low-income earners only, similar to Tubb's and Yang's proposal. The reason to target low- and extremely-low-income earners is to not disincentivize work and potentially slow economic productivity (Kearney & Mogstad, 2019) However, a review entitled "What we know about universal basic income" by Rebecca Hasdell in 2020 includes a rebuttal that automation of labor will continue, and a UBI could supplement lost wages from less necessary labor.

The Evan Low UBI Proposal

California Assemblymember Evan Low's first proposal for a statewide UBI legislative bill was in 2020. The initial language was drafted for the first policy committee before the COVID-19 public health crisis grew and the bill was put on hold because of lack of urgency and an anticipated recession. Assemblymember Low reintroduced his "CalUBI" proposal at the advent of the next legislative session.

The proposal is to provide a cash payment of $1,000 a month to California residents who are below 200 percent of their county's median income (Low, 2021). Recipients must have lived in California for at least three consecutive years and are not currently incarcerated (Low, 2021). No fiscal impact analysis has been completed before this report. However, the drafted bill language suggested examining the feasibility of raising the corporate tax rate to fund CalUBI (Low, 2021). Other legislators, like California Assembly Freshmen Alex Lee, are likely to suggest the application of a tax on extreme personal wealth, which he introduced as Assembly Bill 310 on March 25, 2021. A tax on corporations could cause businesses to move out of state. Neither the Legislative Analyst Office nor a policy committee staff were able to complete an analysis for the CalUBI proposal before this report, so direct and indirect impacts remain unknown. However, we do know that women and racial and ethnic minorities would be the likely benefactors of increased ongoing income with CalUBI because they disproportionately earn less and that could impact their risk factors for chronic health conditions.

Costs of UBI

A UBI is an economic policy option that can impact health outcomes and therefore, I feel it is important to also address some economic critiques of it. Currently, policy makers and academics are merely debating the merits of as a new policy in the 21st century. In this section, I will provide my analysis of UBI, keeping in mind that according to the cited proposals above, more and consistent income show early signs of improving health outcomes, or increase housing security, particularly related to desperate financial straits.

At its core, UBI is a public sector policy option to redistribute wealth. Former U.S. Labor Secretary of the Clinton Administration, Robert Reich argues that redistribution of wealth is already

happening when low-income communities spend modestly to maintain subsistence and they help the affluent gain more profits and wealth beyond necessity (Warwick, 2020). Higher income and wealth are linked to the ability to acquire resources for healthy living (Healthy Communities Data and Indicators Project, 2014). Income and Wealth inequality has increased substantially since the 1960s and is divided by socioeconomic class as well as race and ethnic demographic group. A government UBI would require a tax source to fund it, likely to come from a tax upon exuberant corporate profits, personal wealth, luxury services, or goods.

Earlier, I mentioned that California includes the largest gap between affordability of metropolitan regions within a state in the U.S. (Desilver, 2018) and this is reflective of our low rank in equality by state. California is 45th in the U.S. with a .48 Gini Index, however, no state is less .43 (Statista Research Department, 2021). A Gini index of 1 represents maximum inequality or unequal distribution of income; a Gini index of 0 represents maximum equality when each household has the same income (Healthy Communities Data and Indicators Project, 2014). Approximately 119,200 (5%) of the 2.4 million U.S. deaths in 2000 are attributable to income inequality (Healthy Communities Data and Indicators Project, 2014).

Many UBI policies are advanced by politically liberal and progressive policymakers as a means to alleviate poverty; however, direct cash payments to simplify federal assistance programs have also been advanced by more conservative politicians. Utah U.S. Senator Mitt Romney, the 2012 Republican presidential nominee, proposed a child-payment that took aim at reducing childhood poverty by providing direct cash payments to parents instead of some ongoing federal welfare assistance during the congressional debate about the 2021 American Rescue Plan Act (Higgins, 2021). Harvard professor Chetty reiterates in his research that sustained policy interventions have a better lifelong outcome when enacted for children under 10 years old. A month after the passage of the American Rescue Plan Act for COVID-19 pandemic economic recovery, the Biden Administration floated the idea of sustaining tax credits for children after the public health crisis, without cuts to welfare programs (Reuters, 2021).

UBI policy is currently undergoing an exploratory and testing phase, so no current examples offer truly unconditional cash payments to all residents. The means-testing for current UBI pilots is meant to target payments for the neediest people in a more *equitable* way. However, the “universality” of UBI helps sustain the policy option to be *equally* distributed to every resident. Theorist and academics who are a part of the Stanford Basic Income Lab pose UBI should sustain an income for a lifestyle at or above subsistence so that people in an affluent country can choose to work. Some writers for the Stanford Basic Income Lab support the notion that more developed countries can support UBI policy for a healthy work-life balance with more leisure time (Stanford Basic Income Lab, 2021). This notion supports that UBI is a public policy option to subsidize lost income otherwise earned in the private sector due to digitization and automation.

A truly universal statewide UBI would also provide income above subsistence and replace the current amount of Supplemental Support Payments (SSP) to the federal funded Social Security Disability Insurance (SSDI) and Supplementary Security Income (SSI) program for people with disabilities. The California SSP is one of the highest in country; however, average payments are only $954.72 per individual. Disability rights advocates refer to this as a “poverty trap” (Lang, 2005) for people with disabilities that can increase financial stress and exacerbate poor health behaviors, like poor nutrition, and the associated outcomes. Approximately 25.4 percent of SSDI recipients had a primary psychiatric impairment in 2013 (Mann, Mamun, & Hemmeter, 2013). Many people with disabilities have comorbid chronic conditions and are additionally impacted by health risk factors of poverty that are make them high-cost healthcare users.

Farr (2020) argued that the spending power of more discretionary money in the pockets of non-affluent Californians would increase aggregate demand and stimulate spending in the economy. The Stockton guaranteed income pilot project provided evidence that more money for low-income people is used for necessary goods and is spent quickly. It is important to reiterate that the velocity of money spent by poor people on necessary goods is greater than individuals and families spending on luxury goods because of wealth and their propensity to save.

UBI Conclusion

In many demographic analyses of the California population, the poorest are also the unhealthiest (Danielson, Thorman, & Bohn, 2019; California Health Care Foundation, 2019; Ramos-Yamamoto & Davalos, 2021) and addressing economic inequality can impact health disparities by socioeconomic class, race and ethnicity. Sarah Bohn, a Researcher for the Public Policy Institute of California, said in a Legislative Budget hearing in March 2021 that "direct cash payments, and tax credits like the federal and state Earned Income Tax Credit, help alleviate poverty and increase health outcomes" (Bohn, 2021). In this section, I addressed the most prominent examples of implementing a UBI and I presented an evaluation of UBI as an economic policy option to help alleviate poverty and the chronic financial stress that it creates.

VI. Discussion

In policy analysis, I was taught to take aim at a problem statement, and very often extraordinary data outliers explicate problems. In this section, I want to discuss this problem statements:

- Too many poor people have chronic health conditions.

To the extent people accept the idea of a social contract, there is a collective responsibility in our social contract to each other to value every life. To do so it is imperative to increase the life longevity, equivalent to affluent people, and better the quality of life for people with low income. A defining difference between those populations is income. A direct intervention is to ease their financial straits to afford minimal regional living costs without debt. Currently, health disparities in low-income communities, mostly BIPOC, are costing them years off their lives, and undervaluing their lives is actually more expensive for taxpayers to subsidize preventable health complications and costs.

The Bay Area Regional Health Inequities Initiative (BARHII) created a public health framework for reducing health inequities that positioned addressing social inequities at the headwaters of effective policy interventions. In the BARHII framework, social and institutional inequities lead to disparate living

conditions that can make behavioral risk factors (poor nutrition, smoking, and alcohol) more likely and impact chronic health conditions as well as premature death (Bay Area Regional Health Inequities Initiative, 2021).

If California were to implement a regional living wage policy or UBI above subsistence, even progressively over time, 50 percent of residents would get a raise in monthly income. Currently in California, the median annual income is less than what would be earned with a $15 per hour wage. Most of these residents would be women and BIPOC. Historically, women and BIPOC have been the victims of structural oppression for centuries, and it continues with noted data points such as: they were still disproportionately the most impacted populations of lost employment and income due to the COVID-19 public health crisis in 2020 (Schumacher, 2021), not to mention the racial disparities in deaths from COVID-19.

A living wage or UBI would have ramifications with social, economic, and health justice. Martin Luther King Jr. said, “of all the forms of inequality, injustice in health is the most shocking and inhuman” at a convention of the Medical Committee for Human Rights in 1966. Adults living in poverty are more than five times more likely to report only fair or poor health (Oates , et al., 2017), and die as much as 14.6 years earlier than richest 1 percent of people (Chetty, PhD, Stepner, & Abraham, 2016).

The research suggests that increasing monthly income, and making it consistently above subsistence is preventative health care to reduce risk factors that contribute to chronic health conditions. The research suggests that preventative health care to reduce risk factors and chronic health conditions can also reduce costs for the individual patient and for the healthcare system. The CDC found that 90% of the nation’s $3.8 trillion annual health care expenditures, $3.42 trillion, are for people with chronic physical and mental health conditions (National Center for Chronic Disease Prevention and Health Promotion, 2021)

A living wage or UBI would provide monthly income above subsistence and can draw down exorbitant (?) costs associated to obesity and nutrition, smoking, alcohol, and behavioral health. Currently, the United States spends $1.7 trillion on conditions associated to obesity and diet (Waters &

Graf, 2018) Conditions associated with smoking cost the United States $321.9 billion, and conditions associated with alcohol cost the U.S. $27.4 billion (Waters & Graf, 2018). A reduction in risk factors of chronic health conditions can also reduce the higher expenses for premature "end of life" care. In California, the leading administrative costs recorded per hospital admission are associated with cardiovascular issues impacted by diet, obesity, and smoking (California Department of Public Health, 2021). Increasing monthly income for low-income communities above subsistence is upstream preventative care policy.

Furthermore, a monthly income above subsistence will enhance economic security and reduce stress, financial or otherwise by allowing individuals to work one job to afford minimum regional expenses. Stress reduction is good for physical and mental health in any stage of life (U.S. Department of Health and Human Services, 2021). An individual who only needs to work one job, will have more leisure time that enhance a person's quality of life, and his or her ability to choose more exercise. An individual can also better afford time off for preventative care and primary care appointments for themselves and family members. If California follows Minneapolis' lead, then a living wage policy can also be directed to enhance health care coverage (Brinda PhD, 2021) that is correlated to greater access and use of primary care specialists who help with preventative medical care (Committee on the Consequences of Uninsurance, 2002).

Some healthcare outcome and spending discrepancies between low- and high-income communities are explained by their differences in utilization and access. Preventative medical care, which affluent people utilize the most, is cheaper in most cases than inpatient and emergency services, which low-income people utilize 49 percent more (McDermott, Elixhauser, & Sun, 2017). However, even in a direct comparison of spending on inpatient and emergency services, the average cost per visit was $363 for a poor individual while $101 for an affluent individual (Cunningham, Green, & Braun, 2018). A contributing factor is the $17,775 annual income cap on Medi-Cal eligibility for adults that impacts costs to the individual depending if they happen to earn between the federal poverty line but also less than a living wage.

Another contributing factor to higher costs is emergency care transportation. For example, a study in 2018 found that emergency transportation was approximately 3.8 minutes longer from the poorest neighborhood (Hsia, MD, MSc, Huang, MD, & Mann, PhD, 2018). More hospitals are located in affluent communities and further reduces access for impoverished neighborhoods (Thomas, 2014). The California Health Care Foundation (2019) reported that preventable hospitalizations to address chronic conditions are greatest among impoverished and BIPOC communities. The more frequent use and demand for preventative services drives healthcare services to be more available in affluent communities, despite the necessity for more healthcare services and facilities in low-income neighborhoods to reduce individual and systemic costs. The Institute for Clinical Systems Improvement (2014) noted that a person's utilization and access only account for 20 percent of their overall health status, however it has a greater impact on individual and systemic costs.

I mentioned at the top of this section that instituting a living wage or UBI policy will have additional direct and indirect ramifications for social, economic, and health justice. If California increases monthly income for low- and extremely-low-income people then they will have greater housing security and can help prevent homelessness. Homelessness is another growing public health crisis, especially for black men (Cimini, 2019).

At the same time, the discretionary income of low- and extremely-low-income people can increase spending in their community and contribute to "Place-based Investment" strategies. Harvard Professor Chetty's organization, Opportunity Insights, did a comparative analysis between two federal policy strategies to enhance lifelong outcomes for some low-income people: "Moving to Opportunity" and "Place-based Investment". Investing money in people and small businesses in low-income neighborhoods also contribute to better longitudinal outcomes for residents, but not as much as subsidizing a resident's opportunities to move to established affluent neighborhoods (Hendren & Sprung-Keyser, 2019). However, a rapid influx of money for place-based investment can also displace low-income earners because of gentrification. Increasing monthly income for low-income people can help

them afford growing costs or to move to other neighborhoods, cities, or states that are affluent and better connected, or affordable places and increase their lifelong outcomes.

Conclusion

Too many poor people cannot afford to work only one job earning the minimum wage. Too many poor people are at risk of losing their housing because of low income. Too many poor people live in neighborhoods full of adverse risk factors (Waters & Graf, 2018; Aron, et al., 2015; Lombardo, 2019; Woolf, et al., 2015; Woolf, et al., 2015). Too many poor people cannot afford, the time or financial costs, to receive preventative medical care for themselves or their family. Therefore, <u>too many poor people have chronic health conditions</u>, and die more often (California Health Care Foundation, 2019) and as much as 14.6 years younger than affluent people (Chetty, PhD, Stepner, & Abraham, 2016). Poor people need more and consistent income to afford minimally necessary regional expenses to be healthier.

VII. Recommendation

The principle debate between these two policies is whether it is a private sector responsibility to pay living wages, or a public sector responsibility to distribute wealth more equally. California policy makers chose to keep minimum wage below the cost of living, and I think Daniel Dawes said it best referring to health disparities driven by systemic racism at the Insuring the Uninsured Project Conference in 2021, “Only policy can fix what policy created.”

In concurrence with the California Future of Work Commission, I recommend for the California Legislature to direct the Department of Industrial Relations to enforce minimum regional living wages for low-wage workers in California. I believe that it is the responsibility of the private sector to pay for the true costs of their labor expenses so that employees can maintain housing, healthy eating and activity, and reasonable time off. The CDC records healthier workers to be more productive with fewer sick days, and in the UK, happier workers were recorded to be as much as 13 percent more productive (Bellet, De Neve, & Ward, 2019).

Former President Franklin Delano Roosevelt, who instituted the first minimum wage policy, said in 1933, “No business which depends for its existence on paying less than living wages to its workers has any right to continue in this country. By living wages, I mean more than a bare subsistence level- I mean the wages of decent living.” He was taking direct aim at alleviating famine and hunger in the United States during the Great Depression.

There are different standards for what a living wage could be in California if instituted statewide or according to the discretion of local municipalities. The California Department of Public Health indicated that a statewide living wage should be $26.33 an hour (Healthy Communities Data and Indicators Project, 2013). The MIT Living Wage Calculator was more specific by region or family size, however for a single adult to live independently, MIT estimated approximately $18 an hour as a living wage in California in 2021 (Massachusetts Institute of Technology, 2021). Additionally, Dean Baker (2020) with the Center for Economic and Policy Research wrote that if the federal minimum wage kept pace with economic productivity since 1968, as it did prior to that date, the minimum wage would be approximately over $24 an hour.

I find it a responsibility of the private sector partly because public health funding has decreased by as much as 24 percent over the last decade alone (Public Health Alliance of Southern California, 2021) while corporations benefitted from government safety net programs subsidizing their true costs. The private sector should share in the responsibility to insulate their workers from poverty and its correlated negative health factors and social determinants of health.

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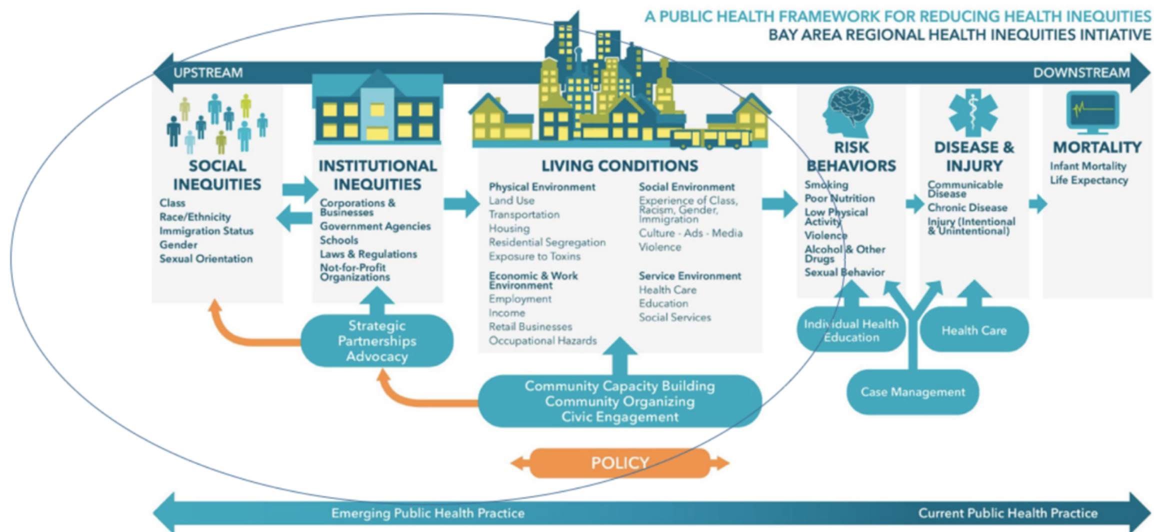
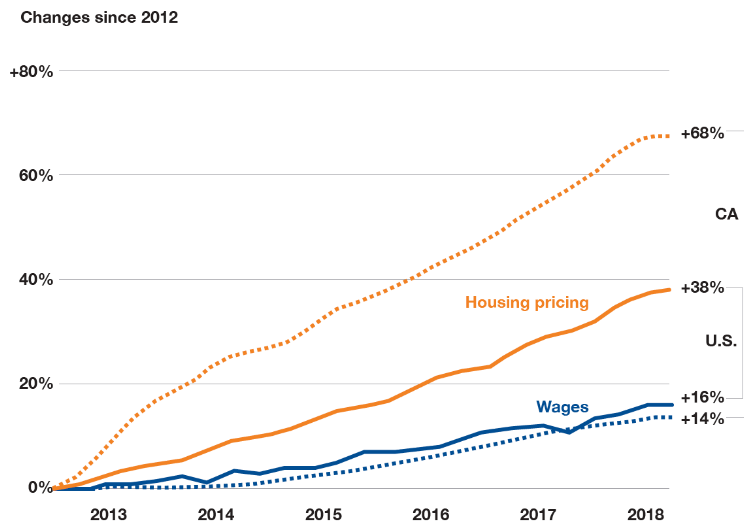
Appendix

BARHII Public Health Policy Stream



CA Future of Work Report



MIT Living Wages for CA

***Living wage reflective of regional cost of living**

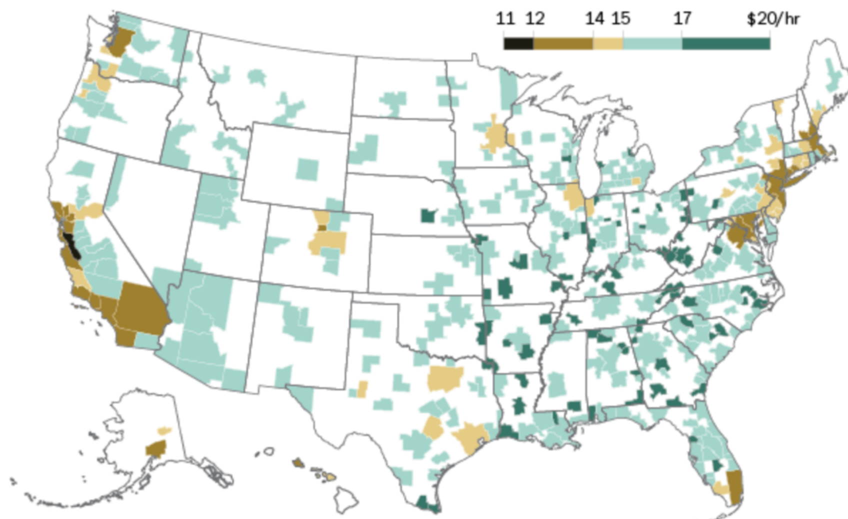
***FPL reflective of consumer basket estimate only, often lowest standard**

	1 ADULT				2 ADULTS (1 WORKING)			
	0 Children	1 Child	2 Children	3 Children	0 Children	1 Child	2 Children	3 Children
Living Wage	$18.66	$40.34	$50.00	$66.02	$30.26	$36.85	$40.83	$46.49
Poverty Wage	$6.13	$8.29	$10.44	$12.60	$8.29	$10.44	$12.60	$14.75
Minimum Wage	$12.00	$12.00	$12.00	$12.00	$12.00	$12.00	$12.00	$12.00

PEW Research Purchasing Power of $15 Hourly Wage

Where paychecks stretch the most, and least

Estimated real purchasing power of a national $15 hourly wage, by metropolitan area



Note: Based on 2016 regional price parities for metropolitan statistical areas.
Source: Bureau of Economic Analysis, Pew Research Center analysis.

PEW RESEARCH CENTER

SEED Categorical Monthly Spending Table

	Month						
Category	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19
Food	36.11%	34.11%	33.65%	39.53%	35.54%	34.18%	38.82%
Sales/Merchandise	24.20%	24.56%	24.09%	21.23%	21.27%	21.14%	18.08%
Utilities	11.78%	10.50%	10.42%	11.76%	7.80%	9.12%	9.48%
Auto Care	9.25%	9.05%	10.19%	9.39%	10.54%	11.23%	11.64%
Services	6.70%	8.37%	8.64%	7.54%	9.12%	6.43%	7.51%
Transportation	3.02%	1.89%	2.48%	2.40%	4.38%	2.54%	2.62%
Insurance	0.55%	4.42%	3.97%	2.14%	2.72%	2.66%	3.42%
Medical	2.23%	4.72%	3.19%	3.50%	3.81%	2.28%	3.38%
Self Care/ Recreation	3.97%	0.81%	2.57%	1.61%	3.46%	3.11%	2.97%
Education	1.95%	0.47%	0.38%	0.66%	1.12%	0.58%	1.63%
Donation	0.25%	1.11%	0.41%	0.25%	0.24%	0.74%	0.46%
Monthly Avg	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

	Month						
Category	Sep 19	Oct 19	Nov 19	Dec 19	Jan 20	Feb 20	Monthly Avg
Food	39.37%	35.26%	37.74%	33.75%	35.05%	41.76%	36.92%
Sales/Merchandise	22.55%	17.35%	21.46%	25.08%	21.31%	21.71%	22.70%
Utilities	11.23%	14.02%	10.26%	6.07%	12.43%	8.74%	11.34%
Auto Care	10.77%	8.61%	9.18%	8.60%	7.03%	8.70%	8.77%
Services	5.30%	8.60%	7.39%	4.41%	9.08%	4.98%	6.90%
Transportation	0.34%	4.53%	3.79%	10.85%	4.88%	3.99%	3.45%
Insurance	2.90%	5.08%	5.12%	3.64%	3.09%	2.11%	3.28%
Medical	3.29%	3.00%	2.27%	3.68%	2.38%	4.63%	3.06%
Self Care/ Recreation	3.18%	2.02%	2.24%	2.91%	2.23%	1.79%	2.09%
Education	0.59%	0.51%	0.41%	0.37%	1.73%	0.50%	0.83%
Donation	0.47%	1.01%	0.15%	0.63%	0.79%	0.09%	0.65%
Monthly Avg	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%