

Providing Essential Support for Essential Farmworkers in California

Peter Amerkhanian, Uwahorasenga Marie de Dieu, Enedina Garcia,
Daniel Tan

May 17, 2022

Table of Contents

Providing Essential Support for Essential Farmworkers in California.....	3
I. Executive Summary.....	3
II. Problem.....	3
Climate Change.....	4
Water Supply.....	4
COVID-19.....	5
Costs.....	6
III. Policy Objective.....	6
IV. Policy Alternatives.....	6
1. Status Quo Farmer Assistance Programs in California.....	6
2. Direct Payments Based on Farm Size.....	9
3. Direct Payments Based on Farmer and/or Farmworker Resources.....	10
V. Analysis.....	14
Analysis of the Status Quo (1).....	14
Analysis of Direct Payments Based on Farm Size (2).....	15
Analysis of Direct Payments Based on Farmer Resources (3).....	17
IV. Recommendation.....	18
About the Authors.....	19
References.....	19

Providing Essential Support for Essential Farmworkers in California

Peter Amerkhanian, Uwahorasenga Marie de Dieu, Enedina Garcia, Daniel Tan

I. Executive Summary

Small-scale farmers in California play an essential role in the state's food system but contend with unlivable average wages and a high degree of income volatility. The effects of climate change exacerbate these issues. The California state government currently offers several assistance programs that seek to mitigate income volatility and offer assistance to farmers through grants, subsidized insurance, and loans, but these programs are insufficient, especially for small-scale farmers. We consider several policy alternatives that use direct payments to smooth farmer incomes and examine how they might address this policy problem. We find that if California were to adopt a direct payment program for farmers, it would be essential that it not be tied to farm size and instead be targeted towards the land-based workers with the highest need. We ultimately propose that California adopt a direct payment program that directs payments directly to vulnerable farmers and other land-based workers based on their income and wealth rather than their farm size. This program would be established as a one-year pilot administered by the California Department of Social Services with a cost of \$290 million.

II. Problem

California farmers as a whole are major agricultural producers for the nation, producing two-thirds of the country's fruits and nuts and one-third of all vegetables. California agriculture at a glance:¹

- Includes more than 400 commodities
- Farms and ranches received \$49.1 billion in cash receipts in 2020
- Agricultural exports totaled \$21.7 billion in 2019
- Organic products totaled more than \$10.4 billion in 2019
- Employs more than 400,000 workers

California farmers currently face existential challenges to their farms' viability and sustainability. Water shortages, wildfires, and other symptoms of climate change, as well as workplace risk and increasing operational costs all represent volatility that threatens farm operations, and many of these factors will only be further exacerbated by the expected effects of climate change in California's future. All of these issues are particularly acute for small-scale farmers, who have

¹ "CDFA - Statistics."

less capital with which to absorb income shocks and less capacity to access existing farmer aid programs.²

Climate Change

The harmful effects of climate change have been well documented by scientists and institutions like the United Nations Intergovernmental Panel on Climate Change.³ It is evident from recent droughts that California agricultural production will be challenged by water shortages, higher temperatures, changing atmospheric conditions, and conversion of agricultural land to developed uses.⁴ A University of California report found that the 2012-2016 drought alone resulted in a \$603 million loss to the economy and the loss of 4,700 jobs due to the negative impacts on agriculture.⁵ In addition to economic losses from drought, the extreme heat conditions that climate change contributed to also puts any personnel working on farms at increased risk of heat related illness and death.⁶ Indeed, a 2008 study by the Center for Disease Control estimated that farmworkers in particular are 20 times more likely to die from heat-stress related illness than other workers, and while the study is dated, little progress has been made since then in mitigating heat-stress.⁷ Climate change will also contribute to increased frequency of wildfire in the state, which heavily impacts farming operations. For example, researchers at the University of California, Los Angeles have estimated that the 2017 fires in Napa and Sonoma counties impacted about 500 acres of vineyards and caused an estimated \$75 million in losses, not taking into account the loss of buildings and other farm structures.⁸

Water Supply

Agriculture is the largest human use of water in California and statewide makes up 40% of water use.⁹ In times of drought, agricultural production faces increased public scrutiny and major water use challenges.¹⁰ Agricultural production typically relies on both surface water and groundwater, depending on farm location and water access, but in dry years groundwater use increases, especially in the California Central Valley.¹¹ Research suggests that farms in this region are increasingly reliant on groundwater irrigation, driven by drought in the past several years and

² Giacoma, "As Their Wells Dry Up, California's Small Farms Seek Emergency Relief."

³ "AR6 Synthesis Report."

⁴ "AR6 Synthesis Report."

⁵ "California's Fourth Climate Change Assessment Statewide Summary Report."

⁶ "Farmworkers Are Dying in Extreme Heat. Few Standards Exist to Protect Them."

⁷ "Farmworkers Are Dying in Extreme Heat. Few Standards Exist to Protect Them."

⁸ Rivas, "The Impact of Wildfires on California Agriculture Informational Hearing Report."

⁹ Niles and Wagner, "Farmers Share Their Perspectives on California Water Management and the Sustainable Groundwater Management Act"; "Water Use in California."

¹⁰ "Water Use in California."

¹¹ Niles and Wagner, "Farmers Share Their Perspectives on California Water Management and the Sustainable Groundwater Management Act."

new agricultural development.¹² Small-scale farms that rely on groundwater tend to have wells that are shallower than those of large-scale farms,¹³ and in drought conditions this leads to small-scale farm wells drying out first.¹⁴ This leaves their operators more exposed to the elevated prices of “hardship water” - water that is allocated by water districts during drought at as much as five times the typical water price.¹⁵ As drought conditions worsen, these issues exacerbate - large-scale farms can afford drilling deeper wells or else replacing existing wells, while small-scale farmers struggle to come up with the \$30-40,000 average costs of well replacement.¹⁶ Currently, California faces another drought, as 2021 became the second driest year on record with a snowpack at 4 percent of the average for the year, leading the Governor’s Office to declare a statewide drought emergency.¹⁷ In response to extreme conditions, the federal government, which operates the Central Valley Project in California, a complex system of dams, reservoirs and canals that serves as one of two major water systems the state relies on, will not deliver water to any farmers in the region.¹⁸

COVID-19

At the start of the pandemic in 2020, California became one of the first states to enact a stay-at-home order to limit the spread of COVID-19 infections. This required many workers to work from home. However, all Agricultural Workers were designated essential workers and required to continue working in-person in order to maintain the food supply. A study by researchers at UC Berkeley found elevated rates of COVID-19 infection in farmworkers in Monterey County between July and November 2020, suggesting that farm work put them at elevated risk of contracting COVID.¹⁹ In the early pandemic, schools and restaurants - major food purchasers - closed, reducing revenues for farmers generally, but especially small-scale farms with limited reserve capital.²⁰

Despite these difficulties, small-scale farms have also worked to maintain the food supply to their communities throughout the pandemic.²¹ For example, in 2021, the California Fresh Farmers Market Association (CFFMA) doubled its profits, and, according to their director, “a lot of that has to do with pent-up demand that was created by [COVID-19]. A lot more people got out and shopped at fresh markets.”²² Many of the state’s small- and medium-scale farms also

¹² Niles and Wagner.

¹³ Giacomina, “As Their Wells Dry Up, California’s Small Farms Seek Emergency Relief.”

¹⁴ Giacomina.

¹⁵ Giacomina.

¹⁶ Giacomina.

¹⁷ Secaira, “Sierra Snowpack Hits a Historic Low, Signaling Another Year of Drought.”

¹⁸ Canon, “We Can’t Make It Rain.”

¹⁹ Stock et al., “COVID-19 Still Spiking in California Farm Fields.”

²⁰ Brar, “How Small-Scale Farmers in California’s Central Valley Survived the Pandemic.”

²¹ “Pandemic Spotlights Importance of Local Farms to Food Security.”

²² Brar, “How Small-Scale Farmers in California’s Central Valley Survived the Pandemic.”

organized emergency food distribution during the pandemic, supplying food to vulnerable populations.²³

Costs

Farming requires extensive investment to pay for production costs including fuel, fertilizer, water, and labor among others. Labor and water constitute significant costs which keep increasing. According to the USDA 2019 California Farm Production Expenditures, the largest year-to-year increases in costs were for labor (increase of \$2.19 billion), rent (increase of \$960 million), and farm supplies and repairs (\$680 million). On average labor accounts for the highest costs of farming. In 2016, the Legislature passed Assembly Bill 1066 to provide overtime pay for agricultural workers who work for large employers (26 employees or more).²⁴ This was a long overdue policy change as agricultural workers' exclusion from overtime pay only exacerbated the vulnerability of these workers in our economy. Overtime pay will go into effect on January 1, 2025 for small-scale farmers. There is a need for economic support for small-scale farmers both to sustain their businesses and to ensure that their labor is adequately compensated.

III. Policy Objective

California's small-scale farmers and land-based workers who work on those farms face uncertainty and instability as a result of the issues addressed above. There is a need for some form of consistent support from the State of California in order to bring earnings closer to a livable wage, sustain small-scale farmers' businesses through periods of volatility, and allow them to pursue ecologically effective farming that can conserve water and maintain soil health. Below, we overview three paths forward for California - the status quo, a direct payment system based on existing policy in the European Union, and a novel direct payment structure that more narrowly serves small-scale farmers. Each will then be subject to analysis in the following section before we make a final recommendation.

IV. Policy Alternatives

1. Status Quo Farmer Assistance Programs in California

There are a number of existing grant programs at the state level that incentivize or reward sustainable agriculture practices, support healthy food systems, support research and planning for the future of farming in California and provide economic support to farmers. The California Department of Food and Agriculture (CDFA) features ten grant programs²⁵ that farmers and

²³ "Pandemic Spotlights Importance of Local Farms to Food Security."

²⁴ DIR, "Overtime for Agricultural Workers - Frequently Asked Questions."

²⁵ "CDFA - Grant Programs."

ranchers are directly eligible for and that provide support to farmers and ranchers. These programs can be divided into categories based on the previously mentioned goals:

1. Programs that incentivize or reward sustainable agriculture practices:
 - [Alternative Manure Management Program](#)
 - In 2020, \$8.93 Million awarded²⁶ to provide financial assistance for the implementation of non-digester manure management practices to reduce emissions.²⁷
 - [Dairy Digester Research and Development](#)
 - In 2020, \$16.53 Million awarded²⁸ to provide financial assistance for the installation of dairy digesters in California to reduce emissions.
 - [Healthy Soils Program](#)
 - In 2020, \$21.78 Million awarded²⁹ to incentives programs, and \$2 million awarded to demonstration programs³⁰ to provide financial assistance for implementation of conservation management that improve soil health (incentives program) and showcase farmers and rancher's implementation of HSP practices (demonstration program).
 - [Pollinator Habitat Program](#)
 - For Fiscal Year 2021-22, \$15 million was made available to provide grant funding for the establishment of pollinator habitat on agricultural lands throughout California, though allocation information is not readily available³¹.
 - [State Water Efficiency and Enhancement Program](#)
 - In 2022, \$43 Million awarded to provide financial assistance in the form of grants to implement irrigation systems³².
2. Programs that support healthy food systems:
 - [California Nutrition Incentive Program \(CNIP\)](#)
 - This program provides monetary incentives for consumers for the purchase of California grown fruits and vegetables at Certified Farmers Markets and small businesses³³.
 - [Farm to School Incubator Grant Program](#), [Healthy Soils Program](#)
 - See Health Soils, demonstration programs, above

²⁶ "California Department of Food and Agriculture 2020 Alternative Manure Management Program Projects Selected for Award of Funds."

²⁷ "CDFA - OEFI - AMMP."

²⁸ "California Department of Food and Agriculture 2020 Dairy Digester Research and Development Program Projects Selected for Award of Funds."

²⁹ "California Department of Food and Agriculture 2020 Healthy Soils Program - Incentives Program."

³⁰ "CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE 2020 HSP Demonstration Projects - Projects Selected for Awards - Updated Jan 11, 2021."

³¹ "CDFA - OEFI - Pollinator Habitat Program."

³² "CDFA - OEFI - State Water Efficiency & Enhancement Program."

³³ "CDFA Office of Farm to Fork - California Nutrition Incentive Program."

- [Healthy Refrigeration Grant Program](#)
 - In 2022, \$20 million will be made available to provide energy efficient refrigeration units in corner stores, small businesses, and food donation programs in low-income or low-access areas³⁴.
- Urban Agriculture Grant Program
 - This program is currently in development and will support urban farmers and community-based organizations in urban farming³⁵.
- 3. Programs that provide economic support to farmers
 - [California Underserved and Small Producers Program \(CUSP\)](#)
 - “The California Underserved and Small Producers (CUSP) Grant Program was created in 2021. It is designed to facilitate direct assistance to individual small- and mid-scale and socially disadvantaged farmers and ranchers who need technical assistance in applying for economic relief grant programs and assistance with business planning and marketing strategies, and implementation of climate smart practices.”³⁶ Thus far it has distributed about \$2 million in funds for technical assistance.³⁷
- 4. Programs to coordinate agricultural planning and research:
 - [Conservation Agriculture Planning Grant Program](#)
 - This program will distribute \$17 million in grants to fund planning for climate change mitigation and adaptation and further environmental stewardship on farms and ranches.³⁸

As the list above suggests, there are a variety of programs with funding dedicated to incentivizing sustainable agricultural practices, supporting healthy food systems, and planning California agriculture’s future, but fewer that deal with direct and non-conditional economic support. The single direct economic support program above, The California Underserved and Small Producers Program (CUSP) offers a combination of technical support for small-scale and socially disadvantaged farmers and ranchers to apply for COVID-19 relief funds, and direct economic assistance for those that suffered economic hardship because of the COVID-19 pandemic.³⁹ In the future it will operate a direct assistance program to support the same groups with drought mitigation.⁴⁰ It should be noted that these funds are not distributed by CDFA - they are distributed to nonprofit organizations who then solicit applications and distribute funds to small-scale and socially disadvantaged farmers and ranchers.⁴¹

³⁴ “CDFA Office of Farm to Fork - Healthy Refrigeration Grant Program.”

³⁵ “CDFA - Grant Programs.”

³⁶ “CDFA - California Underserved and Small Producers Program.”

³⁷ Rittenhouse, “Project Abstracts of Awarded Projects.”

³⁸ “CDFA - OEFI - Conservation Agriculture Planning Grants Program.”

³⁹ “CDFA - California Underserved and Small Producers Program.”

⁴⁰ “CDFA - California Underserved and Small Producers Program.”

⁴¹ “CDFA - California Underserved and Small Producers Program.”

2. Direct Payments Based on Farm Size

A number of governments abroad operate sustained direct payment systems for farmers to mitigate the instability and difficulties of farming and particularly sustainable, diversified farming. These programs typically tie aid to farm area in hectares (a measure for land size similar to acres), awarding more aid to larger farms and less to small-scale farms. This policy alternative is a proposal to add a similar direct assistance program to California agricultural policy.

European Union Policy Under the Common Agricultural Program

In the European Union, average farmer income is significantly lower than average income in other sectors, and farming is a high risk enterprise.⁴² To address this, the EU operates an income support program for farmers as part of the broader Common Agricultural Program (CAP), an agricultural policy managed and financed by the EU to apply to all member states.⁴³ The CAP provides farmers in member states with direct payments with the goals of making farming more profitable, guaranteeing food security in Europe, and incentivizing farming practices that prioritize environmental health.

To apply, farmers submit an aid application each year that declares all of the agricultural parcels on their holding. Income support is not granted for amounts lower than €100 to €500 (depending on the EU country) and/or where the eligible area is less than 0.3 to 5 ha, and the size of the payment is a function of the size of the farm. Member states can apply a rule that grants additional aid for smaller-than-average farms, thereby improving the relative benefit to smaller-scale farmers, but this is optional.⁴⁴ Payments are broken into

Special Considerations for Sustainable Farming Practices

The CAP includes a specific ‘green direct payment’ (or ‘greening’), which is a supplemental income support provided to farmers who adopt farming practices that contribute towards broader EU environmental and climate goals.⁴⁵ Farmers are eligible for ‘greening’ payments if they comply with three mandatory farming practices:⁴⁶

- Crop diversification to make soil and ecosystems more resilient.
- Maintaining permanent grassland to support carbon sequestration and protect habitats.
- Dedicate 5% of their arable land to “areas beneficial for biodiversity”: ecological focus areas (EFA), for example trees, hedges or land left fallow that improves biodiversity and habitats.

⁴² “Income Support Explained.”

⁴³ “Income Support Explained.”

⁴⁴ “Redistributive Payment.”

⁴⁵ “Income Support Explained.”

⁴⁶ “Sustainable Land Use (Greening).”

- One or more of these alternatives may be met through alternative practices subject to approval

Organic farmers automatically receive a greening payment for their farm.

Special Considerations for Small Farmers

In order to lessen administrative burden on small farmers, the CAP features a specific payment structure option for small-scale farmers (not specifically defined at EU level) where they can elect to receive a single simplified direct payment scheme that replaces all other CAP direct payments (including the greening payment and basic direct payment).⁴⁷ This direct payment has a simplified application to address small farmers' limited administrative capacity. The level of payments is limited to an absolute maximum of 1,250 euros per month (\$1354.48⁴⁸).⁴⁹

Farmer Income Supports in Japan

In 2010, the Japanese government implemented two forms of income support direct payment programs for farmers.⁵⁰ The purpose of these programs were to ensure farm viability and to maintain domestic production potential of agricultural products. The first program involved dispersing direct payments to all rice farms that met a specified production quota of rice. This program consisted of two components: a predetermined fixed-rate direct payment for rice production, and a price-contingent payment for rice. The fixed-rate direct payment was based on the current planted area of staple rice, approximately \$128 USD per 0.1 ha of rice planted area. The second program involved reforming the existing diversion subsidies to create direct payments that were dispersed directly to all farms that cultivated non-staple rice products in paddy fields. This payment was granted to farms based on the current area of paddy planted with non-staple rice products, ranging from \$171 USD to \$683 USD per 0.1 ha, with payments fixed for each crop. This program underwent further reforms in later years, with the elimination of price-contingent payment for rice and the halving of the predetermined rate of the fixed-rate direct payment to \$64 USD per 0.1 ha in 2014, and subsequent elimination of the fixed-rate direct payment in 2018.

3. Direct Payments Based on Farmer and/or Farmworker Resources

A more targeted approach to direct assistance for small-scale farmers is a means-tested regime that targets payments towards the highest-need small-scale farmers and other land-based workers. This payment would be based on farmer resources - their income relative to the supplemental poverty rate - rather than farm size. We illustrate a possible direct payment

⁴⁷ "The Small Farmers Scheme."

⁴⁸ All Euro to Dollar conversions from this point forward are calculated as of April 2022

⁴⁹ "The Small Farmers Scheme."

⁵⁰ Nitta et al., "Direct Payments to Japanese Farmers."

system for farmers that is designed to guarantee that farmers earn at least 100% or 150% of the supplemental poverty level. The actual dollar amount of 150% of the supplemental poverty level varies by location across the state, but the median value for a family of four is \$48,330, while for 100% the median is \$32,220.⁵¹

We create a microsimulation for two possible forms of guaranteed income for farmers using a person-level survey sample from the United States Census Bureau’s Current Population Survey (CPS) Annual Social and Economic Supplement (ASEC) from March 2021. The first simulation is of a program that exclusively benefits those with the occupation “farmers”, whereas the second simulation is of a more inclusive program that would benefit all “farmworkers”, or, land-based workers.

Scenario One: Benefits for Farmers

In the first scenario, we limit our sample to approximately 95,000 people living in 30,000 families in California with at least one adult working as a farmer (henceforth “farmer families”).⁵² Table 1 shows the total number and percent of people in farmer families living under poverty (<100%) and near poverty (<150%), based on the Supplemental Poverty Measure (SPM).⁵³

Table 1: Poverty for farmer families in California, March 2021

	Poverty (<100% SPL)	Near Poverty (<150% SPL)
Percent of people	26%	33%
# People	25,000	32,000
# Families	4,000	6,000

Among farmer families, approximately one-in-four Californians live under the supplemental poverty line and one-in-three live in near poverty. A direct payment program would entail providing any family in or near poverty with enough cash assistance to bring their total resources to above 150% of the supplemental poverty level. We simulate the total cost of a program. In other words, we estimate the difference between poverty thresholds and farmer family resources to highlight a baseline dollar amount that the state can expect to spend in order

⁵¹ Bureau, “The Supplemental Poverty Measure.”

⁵² Farmers are defined as individuals who self-report in the survey that their primary occupation is “farmers, ranchers, or other agricultural managers.”

⁵³ The Supplemental Poverty Measure (SPM) is a more complex measure of poverty that includes additional items such as tax payments and work expenses along with cash income to estimate a family’s overall financial resources. SPM poverty thresholds are derived from Consumer Expenditure Survey expenditure data on basic necessities and are adjusted for geographic differences in housing costs.

to mitigate poverty. We estimate an annual cost of \$130 million (\$36,000 per family) to address poverty and \$240 million (\$41,000 per family) to address near poverty.

Scenario Two: Benefits for all Land-based Workers

In the second scenario, we broaden the scope of our population to include the nearly 800,000 people living in 200,000 families with at least one adult working within other farming-related occupations.⁵⁴ We will interchangeably refer to this group as farmworkers or land-based workers. Table 2 shows the total number and percent of people in farmworker families living under poverty (<100%) and near poverty (<150%), based on the United States Census Bureau's Supplemental Poverty Measure (SPM).

Table 2: Poverty for farmworker families in California, March 2021

	Poverty (<100% SPL)	Near Poverty (<150% SPL)
Percent of people	12%	32%
# People	95,000	252,000
# Families	21,000	61,000

Among farmworker families, approximately one-in-eight Californians live under the supplemental poverty line and nearly one-in-three live in near poverty. We then simulate the total cost of providing income to families under poverty and near poverty with income that increases their total resources up to the respective poverty lines. We estimate an annual cost of \$290 million (\$13,000 annually per family, \$1,150 a month) to address poverty and \$1.03 billion (\$17,000 per family) to address near poverty (This strategy, the most generous, is visualized in Figure 1 below).

⁵⁴ Other farmworkers are defined as individuals who self-report in the survey that their primary occupation is “first-line supervisors of farming, fishing, and forestry workers,” “agricultural inspectors,” “graders and sorters, agricultural products,” “miscellaneous agricultural workers,” “fishing and hunting workers,” “forest and conservation workers,” or “logging workers.”

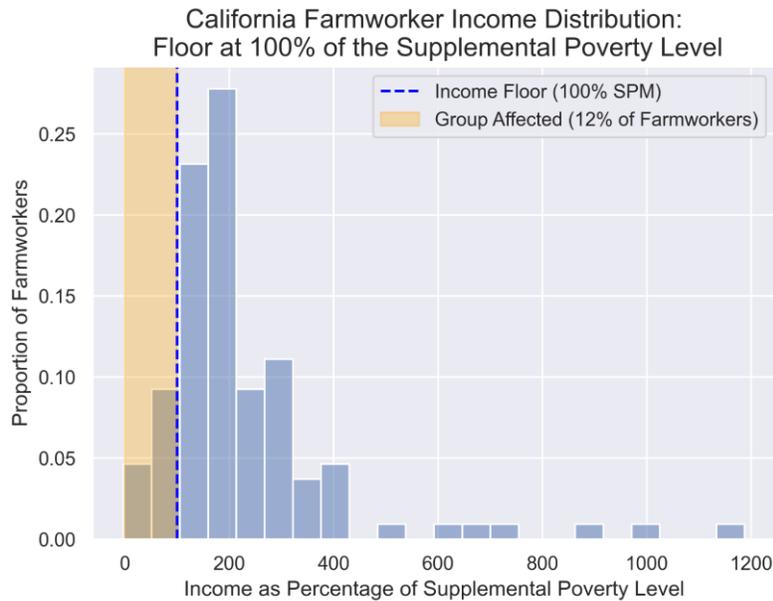


Figure 1:
Bringing all land-based workers to Near Poverty (<100% SPL)
cost: \$290 Million, benefiting 12% of land-based workers

Note: of all the direct payment programs we simulated above, we view the ideal **as the program that would seek to bring all land-based workers’ earnings up to 100% of the supplemental poverty level (SPM).**

Implementation

Our proposed guaranteed income program would start as a three-year pilot program so that its effects could be properly evaluated after one year, building evidence that could possibly be utilized to advocate for a more permanent program. The state is currently administering a more general basic income pilot program through the California Department of Social Services (CDSS) and given that the administrative capacity exists at that department to operate a basic income program, we would propose that CDSS, in consultation with CDFA, operate this guaranteed income program as well.⁵⁵ Furthermore, the mandate of CDSS, to provide oversight and administration of programs serving California's most vulnerable residents, is in line with this program's goal, to provide aid specifically to the most vulnerable farmworkers.⁵⁶

⁵⁵ "Guaranteed Basic Income Projects."

⁵⁶ "About CDSS."

V. Analysis

Each of these policy alternatives - the status quo, direct payments based on farm-size, and a direct payment based on farmer income - have unique sets of strengths and weaknesses with regards to our policy objectives outlined above. Each will be evaluated according to the following criteria:

- **Cost:** What is the additional cost for direct assistance and administration of the direct assistance program? We especially focus on how the total cost of the program compares to the current total amount of annual CDFA funding: about \$108 million. Budgets that are closer to that figure we see as more feasible, whereas budgets that are significantly higher (more than double that figure), we see as less feasible.
- **Effectiveness:** How effectively would the policy alternative support small-scale farmers?

Analysis of the Status Quo (1)

Effectiveness

California has existing programs that serve a variety of farmer needs. For example, the previously mentioned California Underserved and Small Producers Program (CUSP) supports small-scale farmers, and a variety of programs, like the Healthy Soils Program, incentivize sustainable farming practices that improve farm water management and soil health.⁵⁷ However, the state systems have been identified as limited on a number of dimensions, especially for small-scale farmers. Much of the funding these programs allocate is in the form of technical assistance for farming, administration, or else applying to other aid programs, rather than the programs themselves giving direct aid to farmers^{58,59}. Funds often have narrow eligibility windows and specific use cases - like incentivizing sustainable farming, but provide less general support.⁶⁰ The California Underserved and Small Producers Program, which does provide direct support, hasn't been able to meet the needs of small-scale farmers because the payments are too small⁶¹ and the payment distribution system - through just four non-profit organizations⁶² - has been inefficient. According to Dave Runsten, the policy director of the Community Alliance of Family Farmers, if the state does not expand services for small-scale farmers beyond the status quo, "we're going to end up with [only] large-scale, commodity production [in the state], most of which is exported".⁶³

⁵⁷ "Small Farmers in California Face Tough Choices Amidst Drought."

⁵⁸ Comments from Essentials for Essential Farmworkers

⁵⁹ "CDFA - Grant Programs."

⁶⁰ "CDFA - Grant Programs."

⁶¹ "We have the highest grant per person, \$20,000, and received applications wherein people lost over \$100,000" - Comments from Essentials for Essential Farmworkers

⁶² "CDFA - California Underserved and Small Producers Program."

⁶³ Giacomini, "As Their Wells Dry Up, California's Small Farms Seek Emergency Relief."

Conclusion: The Status Quo may be sufficient on some dimensions, like incentivizing sustainability, but is insufficient on most others. Existing direct aid programs for small-scale farmers do not adequately meet their needs.

Cost

Being the status quo, implementation costs are limited to the existing costs of CDFA's grant programs. The total budget for direct assistance for small-scale farmers was \$1.9 million - \$1.35 million in the first round and \$550,000 in the second.⁶⁴ In 2022, the CUSP will be disbursing an additional \$5 million in funds for drought relief for small-scale and socially disadvantaged farmers, but those funds will be distributed through community non-profits as in previous funding rounds.

Conclusion: Current direct assistance programs for small-scale farmers are fairly low-cost in both absolute aid amounts and administration costs given that the funds aren't distributed by CDFA directly, but the low costs reflect a low impact. Small-scale farmers face losses well above the maximum disbursements under CUSP, and the non-profit based distribution system has not been effective due to limited capacity and networks.⁶⁵

Analysis of Direct Payments Based on Farm Size (2)

Effectiveness

Independent evaluation of the EU's direct payment regime for farmers has found that the payments do have an income-stabilizing effect for farmers.⁶⁶ The EU's direct payment program has also been identified as having more stringent environmental requirements than farmer-assistance programs in the U.S., suggesting that the direct payments under the CAP are more effective at incentivizing ecological farming.⁶⁷

However, in both the EU and Japan, the use of direct payments based on farm size has been inequitable and not effective in specifically helping small-scale farms.⁶⁸ In the case of Japan, distribution of funds has been seen as unequal, as the largest farms receive the largest subsidies, though may not have the highest need.⁶⁹ Independent evaluators have suggested the

⁶⁴ "CDFA Press Release #21-047 - APPLICATIONS BEING ACCEPTED FOR CALIFORNIA UNDERSERVED AND SMALL FARM PRODUCER GRANT PROGRAM."

⁶⁵ Comments from Essentials for Essential Farmworkers

⁶⁶ "Do CAP Direct Payments Stabilise Farm Income? Empirical Evidences from a Constant Sample of Italian Farms | Agricultural and Food Economics | Full Text."

⁶⁷ Schnepf, "EU Agricultural Domestic Support: Overview and Comparison with the United States."

⁶⁸ Nitta et al., "Direct Payments to Japanese Farmers"; Apuzzo and Gebrekidan, "Who Keeps Europe's Farm Billions Flowing?"

⁶⁹ Nitta et al., "Direct Payments to Japanese Farmers."

program could be improved by decreasing or limiting the amount of support allotted to the largest beneficiaries.⁷⁰ Likewise, a major issue with the Central Agricultural Policy (CAP) in the EU is the fact that CAP subsidy size is a function of farm size in hectares. CAP payments are inefficiently targeted and do not typically benefit farmers with the highest need for income support.⁷¹ CAP income support payments add on average only €1,200 (\$1,300) per year per worker to the average income of farmers in low-income regions⁷². In contrast, in areas where average farm income is already high⁷³, CAP income support payments offer on average an additional €6,000–€11,900 (\$6,501 to \$12,894) per year per full-time worker, thus widening disparities between farmers.⁷⁴

Subsidy distribution is also subject to widespread corruption on the part of large landholders that use EU farm subsidies as patronage systems to enrich friends and family and protect their political interests.⁷⁵ For example, Bulgaria and Slovakia face issues with a few large entities claiming the bulk of EU subsidies and in some cases using intimidation to force small-scale farmers to sell off their land and thus the EU subsidies that are directly tied to those hectares. This suggests that a direct payment based on farm size is not effective at addressing the needs of small-scale farmers.

Conclusion: While the European Union and Japan provide farmers with direct payment programs that are consistent and effectively smooth farmer incomes, there are serious issues with the structures of these programs and their equity impacts. The programs scale support with farm size and tie benefits to land ownership, disproportionately benefiting farmers that already have higher average incomes and excluding farmers who lease. In the case of the EU, corruption, and the capture of benefits by well-connected political actors has been a major issue. It is likely that a direct payment system based on CAP implemented in California would increase disparities between small-scale farmers and larger ranching and farming operations.

Cost

The CAP direct payment average annual cost for the 2021-27 period is expected to be about 34 billion euros and in 2020 served 6.2 million farmers, making for a cost of about 5,483 euros per recipient farmer (about \$6,000).⁷⁶ A similar program that serves all of California's farms could be expected to cost upwards of \$462 million⁷⁷. This can be compared to the current cost of CDFA's

⁷⁰ Nitta et al.

⁷¹ Nitta et al.

⁷² Average farm income in the bottom 10% of regions

⁷³ Average farm incomes in the top 40% of regions

⁷⁴ Scown, Brady, and Nicholas, "Billions in Misspent EU Agricultural Subsidies Could Support the Sustainable Development Goals."

⁷⁵ Gebrekidan, Apuzzo, and Novak, "The Money Farmers."

⁷⁶ Schnepf, "EU Agricultural Domestic Support: Overview and Comparison with the United States"; "Beneficiaries of CAP Funds."

⁷⁷ \$6,000 on average for roughly 77,000 farms

environmental assistance and direct assistance programs outlined above, which total to about a \$108 million yearly total.

Conclusion: A CAP-style program in California would be very expensive - the broad direct payment program alone is about four times more expensive than the existing array of CDFA programs that seek to provide funds to incentivize environmental practices and provide direct assistance to farmers. Indeed we would view the costs of a program this broad as prohibitive. .

Analysis of Direct Payments Based on Farmer Resources (3)

Note: of all of the direct payment programs we simulated in Section 3, we view the ideal as the program that would seek to bring all land-based workers' earnings up to 100% of the supplemental poverty level (SPM).

Effectiveness

We estimate that this program would effectively set an earnings floor, varying across locales but with a median around \$32,000, for all individuals working on farms. This program would be effective at targeting aid towards those most in-need rather than to all farmers, and effectively ties the aid to people rather than land by basing itself on income figures rather than farm statistics. The most obvious weakness of this program is that bringing people up to the supplemental poverty level is not a particularly high figure. However, it is telling that even to bring farm-based workers up to that income level will cost upwards of \$290 million - this is because so many farm-based workers as of now make well below their supplemental poverty levels.

Conclusion: Creating an earnings floor for all farm-based workers at the supplemental poverty level would benefit approximately 12% of land-based workers, disproportionately benefiting the lowest income families. While this program would not directly benefit small-scale farmers, it would benefit those with extremely low income and a wider range of agricultural workers that other programs that target farmers overlook.

Cost

We estimate an annual cost of \$290 million (\$13,000 per family) for this program. For comparison:

- a program equivalent to the CAP implemented in California would cost \$462 million, while
- the status quo grant and direct support programs that the CDFA operates for which farmers and ranchers are eligible are in total worth approximately \$146.24 million.

- A universal direct payment program that allotted \$13,000 annually to every agricultural worker in California would cost above \$5 billion (According to the Employment Development Department, there were 418,400 agricultural workers as of October 2021).⁷⁸

In terms of cost, this program is somewhere between the current aid programs offered by CDFA and the universal direct assistance regime for farmers as implemented under CAP. Clearly cost is a barrier to the implementation of this proposed direct assistance program. A new social assistance program to provide direct cash assistance to farmers and farmworkers would need approval by the California Legislature through legislation via the regular legislative session or a budget trailer bill. Alternatively, the Governor has the ability to propose language and funding to create a pilot program in his annual budget. In November 2021 the Legislative Analyst Office (LAO) estimated that the state had a \$31 billion surplus. In a February 2022 update, the LAO estimated additional unanticipated revenue between \$6 billion and \$23 billion.⁷⁹ While California has a budget surplus, this does not mean that advocating for new program funding would be easy, as there are hundreds of other budget priorities to compete against. As with any new program, a guaranteed income pilot program would need a strong and coordinated lobby effort to gain approval.

Conclusion: This program is expensive enough to create barriers to implementation given that it is larger than all current CDFA grant programs combined (another reason we propose that it be implemented through the California Department of Social Services), but it is cheaper than a CAP style direct assistance program and is possible in the context of the state's budget surplus.

IV. Recommendation

Our analysis of these policy alternatives leads us to recommend that the State of California pursue the third policy alternative - a direct payment program that is based on farmer resources. This program would bring all land-based workers' incomes to a floor at 100% of the Supplemental Poverty Rate and would be administered by the California Department of Social Services. Our analysis points to this alternative being most effective at benefiting more economically tenuous land-based workers and is based on the individual's needs rather than their land/crops. This would be easier to administer than a direct payment system with more eligibility requirements and would be at least as feasible as policy alternative (2)'s payment structure.

⁷⁸ "Agricultural Employment in California."

⁷⁹ "2021-22 'Big Three' Revenue Outlook Update: February 2022 [EconTax Blog]."

About the Authors

The team of graduate policy consultants from the Goldman School of Public Policy who authored this memo include the following members:

Peter Amerkhanian (he/him/his)
peteramerkhanian@berkeley.edu

Peter is a graduate student in his first year of the Master of Public Policy program at the Goldman School. He grew up in the east bay area and has spent his career working with various public service organizations, including The Peace Corps and United Way. His background is primarily in teaching and data analysis.

Uwahasenga Marie de Dieu (pronounced oo-wha-hor-a-sen-ga, she/her/hers)
uwamadoo@berkeley.edu

Uwahasenga is a Rwandan first year Master of Public Policy student at Goldman School of Public Policy. She holds a bachelor's degree of science in Human Nutrition and Dietetics. She worked with various organizations both national and international including but not limited to Rwanda Girls Initiative, Global Give Back Circle, United Nations Development Programme (UNDP), and Peace Corps. She served as a nutritionist, junior researcher, program coordinator and carried out monitoring and evaluation role.

Enedina Garcia (she/her/hers)
eneegar@berkeley.edu

Enedina is the daughter of farmworkers and a first year MPP student at the Goldman School of Public Policy. She brings five years of legislative experience in California's Capitol, where she advanced legislation related to early childhood education, migrant education, and poverty alleviation. She is passionate about policy that uplifts working families and reduces poverty.

Daniel Tan (pronounced Dah-Nee-EI, he/him/his)
daniel.tan@berkeley.edu

Daniel is a first year Master of Public Policy student at the Goldman School of Public Policy. He hails from Manila, Philippines, and has spent his career working as a policy researcher at the Public Policy Institute of California and the Berkeley Institute for Young Americans. His policy interests racial equity and the role of social safety net programs in poverty alleviation.

References

- "2021-22 'Big Three' Revenue Outlook Update: February 2022 [EconTax Blog]." Accessed May 3, 2022. <https://lao.ca.gov/LAOEconTax/Article/Detail/725>.
- "About CDSS." Accessed May 3, 2022. <https://www.cdss.ca.gov/home/about-cdss>.
- "Agricultural Employment in California," 2022. <https://www.labormarketinfo.edd.ca.gov/data/ca-agriculture.html#Tables>.
- Apuzzo, Matt, and Selam Gebrekidan. "Who Keeps Europe's Farm Billions Flowing? Often, Those Who Benefit." *The New York Times*, December 11, 2019, sec. World. <https://www.nytimes.com/2019/12/11/world/europe/eu-farm-subsidy-lobbying.html>.

- “AR6 Synthesis Report: Climate Change 2022 — IPCC,” 2022. <https://www.ipcc.ch/report/sixth-assessment-report-cycle/>.
- European Commission - European Commission. “Beneficiaries of CAP Funds.” Text. Accessed May 3, 2022. https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/financing-cap/beneficiaries_en.
- Brar, Sukhmony. “How Small-Scale Farmers in California’s Central Valley Survived the Pandemic.” Writers Workshop, October 25, 2021. <https://writersworkshop.voxmedia.com/2021/10/25/22738817/farmers-central-valley-produce-pandemic-markets>.
- Bureau, US Census. “The Supplemental Poverty Measure: 2020.” Census.gov. Accessed May 3, 2022. <https://www.census.gov/library/publications/2021/demo/p60-275.html>.
- “California Department of Food and Agriculture 2020 Alternative Manure Management Program Projects Selected for Award of Funds.” Accessed May 3, 2022. https://www.cdfa.ca.gov/oefi/ammp/docs/2020-AMMP_ProjectsAwarded.pdf.
- “California Department of Food and Agriculture 2020 Dairy Digester Research and Development Program Projects Selected for Award of Funds.” Accessed May 3, 2022. https://www.cdfa.ca.gov/oefi/ddrdp/docs/2020-DDRDP_ProjectsAwarded.pdf.
- “California Department of Food and Agriculture 2020 Healthy Soils Program - Incentives Program,” 2020. https://www.cdfa.ca.gov/OEFI/healthysouils/docs/2020_HSP_Incentives_Projects_Selected_for_Awards.pdf.
- “CALIFORNIA DEPARTMENT OF FOOD AND AGRICULTURE 2020 HSP Demonstration Projects - Projects Selected for Awards - Updated Jan 11, 2021,” January 21, 2021. <https://www.cdfa.ca.gov/oefi/healthysouils/docs/2020-HSPDemo-SelectedProjects.pdf>.
- “California’s Fourth Climate Change Assessment Statewide Summary Report,” n.d., 133.
- Canon, Gabrielle. “‘We Can’t Make It Rain’: California Farmers Left out to Dry as US Government Allots No Water.” *The Guardian*, February 24, 2022, sec. US news. <https://www.theguardian.com/us-news/2022/feb/23/rain-california-farmers-us-government-drought-water>.
- “CDFA - California Underserved and Small Producers Program.” Accessed May 3, 2022. <https://www.cdfa.ca.gov/CUSP/>.
- “CDFA - Grant Programs.” Accessed May 3, 2022. <https://www.cdfa.ca.gov/grants/>.
- “CDFA - OEFI - AMMP.” Accessed May 3, 2022. <https://www.cdfa.ca.gov/oefi/ammp/>.
- “CDFA - OEFI - Conservation Agriculture Planning Grants Program.” Accessed May 3, 2022. <https://www.cdfa.ca.gov/oefi/planning/>.
- “CDFA - OEFI - Pollinator Habitat Program.” Accessed May 3, 2022. <https://www.cdfa.ca.gov/oefi/php/>.
- “CDFA - OEFI - State Water Efficiency & Enhancement Program.” Accessed May 3, 2022. <https://www.cdfa.ca.gov/oefi/sweep/>.
- “CDFA - Statistics,” 2020. <https://www.cdfa.ca.gov/Statistics/>.
- “CDFA Office of Farm to Fork - California Nutrition Incentive Program.” Accessed May 3, 2022. <https://cafarmtofork.cdfa.ca.gov/cnip.html>.
- “CDFA Office of Farm to Fork - Healthy Refrigeration Grant Program.” Accessed May 3, 2022. <https://cafarmtofork.cdfa.ca.gov/hrgp.html>.
- “CDFA Press Release #21-047 - APPLICATIONS BEING ACCEPTED FOR CALIFORNIA UNDERSERVED AND SMALL FARM PRODUCER GRANT PROGRAM.” Accessed

- May 3, 2022.
https://www.cdfa.ca.gov/egov/Press_Releases/Press_Release.asp?PRnum=21-047.
- DIR. "Overtime for Agricultural Workers - Frequently Asked Questions." Accessed May 3, 2022.
<https://www.dir.ca.gov/dlse/Overtime-for-Agricultural-Workers-FAQ.html>.
- "Do CAP Direct Payments Stabilise Farm Income? Empirical Evidences from a Constant Sample of Italian Farms | Agricultural and Food Economics | Full Text." Accessed May 3, 2022. <https://agrifoodecon.springeropen.com/articles/10.1186/s40100-016-0050-0>.
- PBS NewsHour. "Farmworkers Are Dying in Extreme Heat. Few Standards Exist to Protect Them," August 6, 2021. <https://www.pbs.org/newshour/health/farmworkers-are-dying-in-extreme-heat-few-standards-exist-to-protect-them>.
- Gebrekidan, Selam, Matt Apuzzo, and Benjamin Novak. "The Money Farmers: How Oligarchs and Populists Milk the E.U. for Millions." *The New York Times*, November 3, 2019, sec. World. <https://www.nytimes.com/2019/11/03/world/europe/eu-farm-subsidy-hungary.html>.
- Giacoma, Cecille. "As Their Wells Dry Up, California's Small Farms Seek Emergency Relief." *Civil Eats*, August 18, 2021. <https://civileats.com/2021/08/18/californias-small-farmers-seek-emergency-relief-as-their-wells-dry-up/>.
- "Guaranteed Basic Income Projects." Accessed May 3, 2022.
<https://www.cdss.ca.gov/inforesources/guaranteed-basic-income-projects>.
- European Commission - European Commission. "Income Support Explained." Text. Accessed March 9, 2022. https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/income-support/income-support-explained_en.
- Niles, M., and C. Wagner. "Farmers Share Their Perspectives on California Water Management and the Sustainable Groundwater Management Act." *California Agriculture* 72, no. 1 (September 8, 2017): 38–43.
- Nitta, Atomu, Yasutaka Yamamoto, Katsunobu Kondo, and Daisuke Sawauchi. "Direct Payments to Japanese Farmers: Do They Reduce Rice Income Inequality? Lessons for Other Asian Countries." *Journal of Policy Modeling* 42, no. 5 (September 1, 2020): 968–81. <https://doi.org/10.1016/j.jpolmod.2020.02.006>.
- Resources Legacy Fund. "Pandemic Spotlights Importance of Local Farms to Food Security," August 31, 2020. <https://resourceslegacyfund.org/news/pandemic-spotlights-importance-of-local-farms-to-food-security/>.
- "Redistributive Payment." Accessed May 3, 2022.
https://ec.europa.eu/info/sites/default/files/food-farming-fisheries/key_policies/documents/ds-dp-redistributive-payment_en.pdf.
- Rittenhouse, Thea@CDFA. "Project Abstracts of Awarded Projects," 2021, 5.
- Rivas. "The Impact of Wildfires on California Agriculture Informational Hearing Report." Accessed May 3, 2022.
<https://agri.assembly.ca.gov/sites/agri.assembly.ca.gov/files/The%20Impact%20of%20Wildfires%20on%20California%20Agriculture%20Informational%20Hearing%20Report.pdf>.
- Schnepf, Randy. "EU Agricultural Domestic Support: Overview and Comparison with the United States," n.d., 42.
- Scown, Murray W., Mark V. Brady, and Kimberly A. Nicholas. "Billions in Misspent EU Agricultural Subsidies Could Support the Sustainable Development Goals." *One Earth* 3, no. 2 (August 21, 2020): 237–50. <https://doi.org/10.1016/j.oneear.2020.07.011>.
- Secaira, Manola. "Sierra Snowpack Hits a Historic Low, Signaling Another Year of Drought." Accessed May 3, 2022. <https://www.capradio.org/175586>.

- Civil Eats. "Small Farmers in California Face Tough Choices Amidst Drought," June 18, 2021. <https://civileats.com/2021/06/18/small-farmers-in-california-face-tough-choices-amidst-the-drought/>.
- Stock, Stephen, Robert Campos, Mark Villarreal, and Michael Horn • • "COVID-19 Still Spiking in California Farm Fields." *NBC Bay Area* (blog). Accessed May 3, 2022. <https://www.nbcbayarea.com/investigations/covid-still-spiking-in-california-farm-fields/2482280/>.
- European Commission - European Commission. "Sustainable Land Use (Greening)." Text. Accessed March 9, 2022. https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/income-support/greening_en.
- European Commission - European Commission. "The Small Farmers Scheme." Text. Accessed May 3, 2022. https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/income-support/additional-optional-schemes/small-farmers-scheme_en.
- Public Policy Institute of California. "Water Use in California." Accessed May 3, 2022. <https://www.ppic.org/publication/water-use-in-california/>.