

# RUTGERS

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## POLICY BRIEF

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# AGRICULTURE AT A CROSSROADS:

## Key Regulatory Solutions for Texas and California

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IMPLEMENT ADVANCED WATER MANAGEMENT TECHNOLOGIES

ENHANCE LABOR PROTECTIONS AND IMPROVE WORKING CONDITIONS

STREAMLINE IMMIGRATION PROCESSES FOR AGRICULTURAL WORKERS



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# EXECUTIVE SUMMARY >>

Agriculture is a cornerstone of the U.S. economy, with Texas and California playing pivotal roles in ensuring food security and employment. However, both states face unique regulatory challenges that impact their agricultural sectors. This policy brief compares and contrasts the regulatory frameworks of Texas and California, focusing on critical issues such as water shortages, labor costs and shortages, and complex regulatory environments. By examining these challenges, the brief provides insights into enhancing agricultural productivity and sustainability in both states. Key recommendations include implementing advanced water management technologies, enhancing labor protections, increasing support for automation, streamlining immigration processes, and fostering collaborative water management initiatives. By learning from each other's experiences and adopting best practices, Texas and California can ensure a resilient and productive future for their agricultural industries.

## INTRODUCTION >>

Agriculture is a cornerstone of the U.S. economy, significantly contributing to food security and employment. Texas and California, as leading agricultural states, play pivotal roles in this sector. However, both states face unique regulatory challenges that impact their agricultural productivity and sustainability. This policy brief compares and contrasts the regulatory frameworks of Texas and California, focusing on critical issues such as water shortages, labor costs and shortages, and complex regulatory environments.

California, with the nation's largest agricultural sector, generated \$55.9 billion in revenue in 2022 and employs over 420,000 people. The state's diverse agricultural output, including a thriving dairy industry and extensive grape production, underscores its importance. However, California

## HIGHLIGHTS

- California's agricultural sector generates over \$50 billion annually, employing more than 420,000 people, while Texas's agricultural products are valued at over \$32 billion.
- Severe water shortages impact both states, with California's ongoing drought affecting 37.2 million people and Texas's drought-related costs escalating to \$1.1 billion annually.
- Labor shortages are critical, with agricultural labor dropping from 10% of the workforce in the 1950s to less than 1% today, exacerbating productivity challenges.
- California's stringent water and labor regulations contrast sharply with Texas's more lenient policies, affecting operational costs and sustainability.
- Both states can benefit from increased automation and precision agriculture technologies to offset labor shortages and improve efficiency.

faces severe water scarcity and high labor costs, which are exacerbated by stringent regulations. In contrast, Texas boasts 230,662 farms covering over 125 million acres, contributing over \$32 billion to the economy in 2022. Texas is a national leader in livestock, poultry, and related products. The state grapples with water management challenges, frequent droughts, and labor shortages, but benefits from a more lenient regulatory environment.

To address these challenges and enhance agricultural productivity and sustainability in both states, the policy brief recommends implementing advanced water management technologies, enhancing labor protections, and streamlining immigration processes for agricultural workers. Prioritizing precision irrigation systems and soil moisture sensors can reduce water waste and improve crop efficiency, essential for managing the severe water shortages in both states. Enhancing labor protections by implementing policies that ensure rest breaks, access to shade and water, and safety measures against extreme heat can help attract and retain workers, addressing critical labor shortages. Streamlining immigration processes, particularly the H-2A visa program, can ensure a timely and reliable labor supply, providing legal protections and fair wages for immigrant workers. By learning from each other's experiences and adopting best practices, Texas and California can overcome these regulatory challenges, ensuring a resilient and productive future for their agricultural industries.

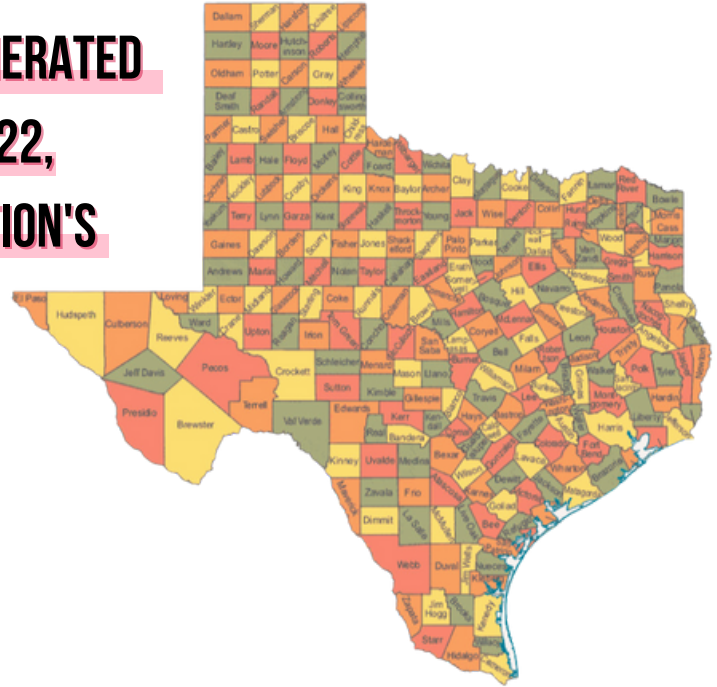
## OVERVIEW OF THE AGRICULTURAL SECTOR IN TEXAS & CALIFORNIA

California's agricultural sector, the largest in the nation, generated \$55.9 billion in revenue in 2022, an 8.8% increase from 2021. The state's 68,400 farms and ranches produce diverse commodities, led by the dairy industry, which alone generated \$10.4 billion in 2022. California also excels in grape production, with cash receipts totaling \$5.5 billion in 2022. However, the ongoing drought has exacerbated water scarcity, increasing crop water demands and impacting agriculture and related sectors. Despite these challenges, California remains committed to sustainable agricultural practices, focusing on water demand management and storage improvements to enhance resilience.

In contrast, Texas has 230,662 farms covering over 125 million acres, making a significant impact on both state and national economies. The market value of Texas's agricultural products totaled over \$32 billion in 2022, with livestock, poultry, and related products accounting for nearly \$25 billion. Texas's top agricultural products include cattle, milk, broilers, and cotton. However, the state faces challenges such as a decreasing number of farms and an aging farmer population. Additionally, labor shortages persist, with many farms struggling to find sufficient workers, further complicating agricultural operations.

Both states share common challenges around water and labor. California’s stringent water usage regulations contrast sharply with Texas’s more lenient policies. High labor costs and extensive regulations in California have led some farmers to focus on less labor-intensive crops. Conversely, Texas grapples with a shrinking agricultural workforce and the need for more helping hands. These challenges highlight the importance of comparing the regulatory environments in both states to identify opportunities for mutual learning and improvement.

**TEXAS'S AGRICULTURAL SECTOR GENERATED OVER \$32 BILLION IN REVENUE IN 2022, MAKING IT A KEY PLAYER IN THE NATION'S AGRICULTURAL ECONOMY.**



**CALIFORNIA'S AGRICULTURAL SECTOR GENERATED \$55.9 BILLION IN REVENUE IN 2022, MAKING IT THE LARGEST IN THE NATION.**

## KEY ISSUES FACING AGRICULTURE IN TEXAS & CALIFORNIA >>

Agriculture in Texas and California faces several critical challenges that demand urgent attention from policymakers. Both states play pivotal roles in the nation’s food production, but they are grappling with distinct yet interconnected issues such as water shortages, labor costs and shortages, and complex regulatory frameworks. Addressing these challenges is essential for ensuring the sustainability and productivity of the agricultural sector in both states.

## ***Addressing Critical Water Shortages***

Water scarcity is a pervasive issue impacting agriculture in both Texas and California, but the nature and implications of this challenge vary significantly between the two states. California's agricultural sector is heavily reliant on irrigation, making it particularly vulnerable to water shortages. The ongoing drought has severely impacted water availability, with 37.2 million people affected and 58 counties receiving USDA disaster designations. Despite improvements in irrigation efficiency, the state's reliance on surface water and groundwater has led to chronic over-pumping, prompting the enactment of the Sustainable Groundwater Management Act (SGMA) in 2014. This legislation aims to protect groundwater resources but imposes significant regulatory burdens on farmers, limiting their ability to pump water and requiring extensive measurement and reporting.

The impact of drought on California agriculture is profound. For instance, the 2020 and 2021 water years constituted the second-driest two-year period since records began in 1895. Low storage levels and water right curtailments reduced surface water deliveries, forcing farmers to increase groundwater pumping and raise production costs significantly. The drought has led to the idling of nearly 395,000 acres of land and reduced crop yields, particularly in regions like the Sacramento Valley and the Russian River Basin. The economic repercussions are substantial, with an estimated \$1.7 billion in revenue losses and 14,600 job losses across affected regions.

In Texas, water management challenges are compounded by rising temperatures and the increasing frequency of droughts. The financial costs of drought in Texas have escalated rapidly, with crop insurance payouts due to drought rising from an average of \$251 million per year in the 2000s to \$1.1 billion per year in the first four years of the 2020s. These payouts reflect farmers' lost harvests and the publicly-funded premium subsidies that sustain them through such disasters. As temperatures continue to rise, driven by climate change, the costs associated with drought are expected to increase further, posing significant financial risks to both farmers and taxpayers.



Addressing water management challenges in both states requires urgent action from policymakers. In California, accelerating water demand management and improving storage infrastructure are critical steps to enhance agricultural resilience. In Texas, adopting more efficient irrigation technologies and implementing robust conservation programs can mitigate the impact of droughts. Policymakers must prioritize sustainable water management practices to ensure the long-term viability of agriculture in these states.

**“IN BOTH TEXAS AND CALIFORNIA, SEVERE WATER SHORTAGES THREATEN THE FOUNDATION OF OUR AGRICULTURAL SECTOR. URGENT ACTION IS NEEDED TO ADOPT SUSTAINABLE WATER MANAGEMENT PRACTICES TO ENSURE THE RESILIENCE AND PRODUCTIVITY OF OUR FARMS FOR FUTURE GENERATIONS.”**

### ***Escalating Labor Costs and Persistent Shortages***

Labor shortages and rising labor costs are pressing issues that significantly affect the agricultural sectors of both Texas and California. The labor market for agriculture has shrunk dramatically over the decades. In the 1950s, about 10% of the American labor force was engaged in agricultural work; today, it's less than 1%. This decline has resulted in widespread labor shortages that have profound implications for agricultural productivity.

In Texas, the labor shortage is acute. Farms like Sapling Farms in southern Cooke County struggle to find enough workers, impacting their ability to expand and maintain operations. The problem is exacerbated by the high turnover rate among farm workers, with many new hires leaving after just a few days. Historically, the decrease in American workers in agriculture was offset by an increase in workers from Mexico. However, this trend is reversing, with fewer individuals from rural Mexico entering agricultural work. Diane Charlton of Montana State University notes that the probability of individuals from rural Mexico working in agriculture has decreased by about one percent per year from 1980 to 2010, equating to a loss of approximately 250,000 potential workers annually.

To address these labor shortages, more Texas farmers are turning to temporary foreign worker programs like the H-2A visa. Demand for H-2A workers in Texas has tripled, reflecting the urgent need for labor. However, experts like Amy Liebman from the Migrant Clinicians Network stress the importance of improving labor conditions, especially as climate change leads to hotter working environments. Implementing immediate protections for workers in high temperatures and streamlining immigration processes are critical steps to ensure a stable labor force.

California faces similar labor challenges, compounded by high labor costs. The state's minimum wage is \$16.00 per hour, with higher rates in some cities, making it difficult for farmers to compete in the global market. Labor costs constitute 70 to 80 percent of variable costs for farmers, and the increasing cost of labor, combined with growing shortages, necessitates advancements in automation and precision agriculture. Curt Covington from AgAmerica emphasizes that technological innovations and precision ag technology are crucial for the future of California agriculture.

Policymakers must focus on developing comprehensive strategies to address labor shortages and rising labor costs. This includes improving working conditions, increasing wages, and investing in automation technologies. Enhancing immigration processes to facilitate the timely arrival of foreign workers and providing targeted training programs for agricultural workers can also help alleviate labor shortages.

**“ADDRESSING LABOR SHORTAGES THROUGH STREAMLINED IMMIGRATION PROCESSES AND ENHANCED WORKER PROTECTIONS IS ESSENTIAL. A STABLE AND FAIRLY TREATED WORKFORCE IS NOT JUST A NECESSITY FOR OUR AGRICULTURAL PRODUCTIVITY; IT’S A CORNERSTONE OF OUR NATION’S FOOD SECURITY.”**

### *Navigating Complex Regulatory Frameworks*

The regulatory frameworks governing agriculture in Texas and California are complex and significantly impact the sector’s operations. California’s regulatory environment is stringent, particularly concerning water usage and labor laws. The State Water Resources Control Board (SWRCB) enforces mandatory water restrictions during droughts, and the Sustainable Groundwater Management Act (SGMA) requires local agencies to develop Groundwater Sustainability Plans (GSPs). These measures are essential for protecting water resources but impose significant compliance costs on farmers, who must adhere to strict water usage regulations.

California’s labor regulations are equally rigorous. The state’s minimum wage is among the highest in the nation, and agricultural employers are required to pay overtime for all hours worked over eight in a day or 40 in a week. These stringent labor laws aim to protect workers but increase operational costs for farmers, making it challenging to maintain profitability. Additionally, new notice requirements and allegations of union organizer misconduct have further complicated the regulatory landscape, requiring farmers to navigate an increasingly complex legal environment.

In contrast, Texas has a more lenient regulatory framework. The doctrine of prior appropriation governs water rights, allowing farmers with senior water rights more secure access to water. However, groundwater use is regulated by local Groundwater Conservation Districts (GCDs), leading to inconsistent enforcement. Texas labor laws adhere to federal guidelines, with a minimum wage of \$7.25 per hour and no additional state-specific overtime regulations. This leniency reduces operational costs but poses challenges in terms of sustainability and workforce stability.

To ensure the sustainability of agriculture in both states, policymakers must address the complexities of the regulatory frameworks. In California, there is a need for more streamlined and supportive regulations that balance environmental protection with the economic realities of farming. In Texas, enhancing regulatory enforcement and adopting more sustainable practices are essential for long-term agricultural viability.

As Texas and California navigate the significant challenges facing their agricultural sectors, it is crucial for policymakers to turn their attention to urgent issues such as water shortages, labor costs and shortages, and complex regulatory frameworks. Addressing these challenges requires a multifaceted approach that incorporates sustainable water management practices, improved labor conditions, and streamlined regulatory processes. By learning from each other's experiences and adopting best practices, Texas and California can enhance agricultural productivity and sustainability, ensuring a resilient future for their agricultural industries.

## **POLICY RECOMMENDATIONS FOR ADDRESSING AGRICULTURAL CHALLENGES IN CALIFORNIA & TEXAS** >>

### ***Implement Advanced Water Management Technologies***

To address the critical challenges facing agriculture in Texas and California, implementing advanced water management technologies, such as precision irrigation systems and soil moisture sensors, is essential. Given the severe water shortages in both states, precision irrigation can reduce water waste, ensuring crops receive the exact amount needed. This is particularly crucial in Texas, where rising temperatures and frequent droughts are prevalent, and in California, where over-pumped groundwater resources need to be managed under SGMA regulations.

### ***Enhance Labor Protections and Improve Working Conditions***

Enhancing labor protections and improving working conditions is a crucial policy recommendation. Implementing policies that mandate rest breaks, provide access to shade and water, and enhance safety measures against extreme heat are essential steps toward attracting and retaining agricultural workers. Improved working conditions are vital in addressing labor shortages and high turnover rates, especially as climate change increases the frequency and severity of heatwaves.

Several strategies have been successfully adopted to integrate equitable labor practices into sustainable food programs and initiatives. Employers that implement these policies often report increased productivity, economic resiliency, and brand loyalty. For example, the Equitable Food



Initiative (EFI) is a partnership of farmworker groups, businesses, and social justice organizations that has developed labor standards and training programs aimed at improving working conditions and producing safer food. Farms participating in EFI supply companies such as Costco and Whole Foods and have integrated equitable labor practices throughout their global supply chains. These farms are audited by third parties, with input from workers, to ensure compliance with the initiative’s labor, food safety, and pest management principles.

A localized initiative like the Los Angeles Food Policy Council (LAFPC) demonstrates the effectiveness of community partnerships in building a good food system. The LAFPC’s goals include sustainable agriculture and fair working conditions for all food workers, as well as ensuring access to healthy, affordable food in underserved neighborhoods. The council developed a metric that uses quantitative and qualitative data to evaluate progress toward these goals. The LAFPC’s definition of “fair food” emphasizes that at every point in the food supply chain, workers should receive fair compensation regardless of ethnicity, age, gender, ability, or documentation status and be free from exploitation.

By adopting similar equitable labor practices and policies, Texas and California can improve working conditions, attract and retain a stable workforce, and enhance overall agricultural productivity. These measures not only address immediate labor challenges but also contribute to long-term sustainability and resilience in the agricultural sector.



## ***Streamline Immigration Processes for Agricultural Workers***

Streamlining immigration processes for agricultural workers is a crucial step in addressing labor shortages in both Texas and California. Reforming immigration policies, such as simplifying the H-2A visa process, can ensure a timely and reliable labor supply. This is essential as both states heavily rely on immigrant labor to sustain their agricultural sectors. Simplifying the H-2A visa process can help mitigate labor shortages by making it easier for employers to hire foreign workers when local labor is unavailable. Additionally, providing legal protections and fair wages for immigrant workers can improve their working conditions and stability, making agricultural jobs more attractive and sustainable.



The Farm Workforce Modernization Act (FWMA), a bipartisan bill reintroduced in March 2021, exemplifies the type of comprehensive reform needed. The FWMA would provide undocumented farmworkers and their families with a path to legal immigration status and citizenship while revising the H-2A program to address concerns from both employers and workers. This legislation includes mandatory employment verification (E-Verify) in agriculture and proposes improvements to the

H-2A visa program, such as enhanced worker protections and a pathway to permanent residency for long-term agricultural workers. By enacting such reforms, we can create a more stable and reliable workforce, which in turn will support the overall health and sustainability of the agricultural industry in both states.

### ***Learning from Each Other***

Texas and California can learn valuable lessons from each other. Texas can adopt California's stringent water management practices, such as the Sustainable Groundwater Management Act (SGMA), to enhance groundwater conservation and ensure long-term water sustainability. Conversely, California can benefit from Texas's more lenient regulatory approach in certain areas, which can reduce financial burdens on farmers and improve agricultural productivity. Additionally, both states can share innovations in automation and precision agriculture, leveraging Texas's advancements in indoor farming and California's leadership in precision agriculture technologies to improve efficiency and sustainability.

By embracing these policy recommendations and learning from each other's strengths, Texas and California can effectively address their agricultural challenges, ensuring a resilient and productive future for their farming industries.

## **CONCLUSION** >>

Addressing the significant challenges facing the agricultural sectors in Texas and California requires a multifaceted approach that incorporates sustainable water management practices, improved labor conditions, and streamlined regulatory processes. By implementing the policy recommendations outlined in this brief and learning from each other's experiences, Texas and California can enhance their agricultural productivity and sustainability. Policymakers must act urgently to ensure a resilient and productive future for the agricultural industries in both states.