

HAWKEYE POLICY REPORT

2025-2026

IOWATM

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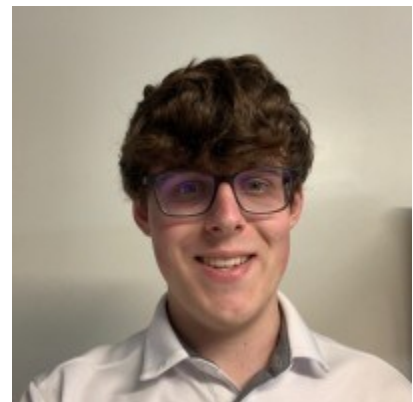
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Maren Denison is a 3rd-year graduating in May 2026, from Cedar Falls, Iowa. She is an honors student pursuing a B.A. in Public Health and a minor in Public Policy. Outside of the classroom, she leads advocacy for Iowa's Partners in Health Chapter and participates in research on Native American boarding schools. She has also interned for two congressional campaigns and the Iowa Environmental Council. After graduation, she plans to pursue a Master of Public Health Policy on the East Coast or in Europe.



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All were integral members of our research teams in the Fall of 2025, but unable to join us for the Spring of 2026.

Addressing Food Insecurity and Current Policies Across Iowa

Ethan Button, Maren Denison, and Hannah DeVore

Executive Summary

In May 2025, all 99 counties in Iowa saw an increase in food insecurity, leaving roughly one in eight Iowans food insecure (Hacker, 2025). Food insecure populations, those with limited or uncertain access to nutritionally adequate and safe foods, are significantly more likely than others to face various adverse health effects. These adverse effects may be severe and widespread, including increased mortality and a rise in chronic illness. With food insecurity growing and federal support for SNAP waning, Iowa must respond with effective policies to address food insecurity to prevent the looming public health crisis this development presents.

In Iowa, counties with the least food availability are rural and lack nearby grocery stores, resulting in higher transportation costs and greater difficulty finding food. These issues, compounded with a consumer's age or disability, create extremely high barriers for Iowans looking for food. To build a more just food system, we will recommend some policies that reduce the average distance Iowans live from their nearest food source. We also emphasize policies that increase the amount of food available to Iowans, specifically in food banks and pantries.

In this paper, we examine policies to address food insecurity, recommending solutions that offer a wide range of benefits tailored to Iowa. We discuss other states' policies and fledgling Iowa programs, assessing their desirability using four criteria: cost-effectiveness, applicability across the state, and capacity to provide both healthy foods and more food generally.

We specifically analyze HUSH programs, mobile pantry delivery, SNAP alterations, and Iowa's current Farm to Food Tax Credit in Figure 3 as potential solutions to Iowa's growing food insecurity. Considering these policies through our four criteria, we recommend that the state expand the Farm to Food Tax Credit and HUSH as inexpensive ways to provide more healthy food to Iowans. We conclude that other policies will be more effective at providing Iowans with

more food, but they may require greater investment from the state, which may be infeasible at the moment.

Introduction

Food insecurity has various well-studied effects on long-term health and development, making it a pertinent topic for lawmakers seeking to protect Iowans. Despite this, trends show food insecurity is increasing across Iowa, affecting over 380,000 people.

To combat this growing issue, the State has implemented multiple policies, including HUSH, Farm to Food Tax Credit, SNAP, and mobile food bank deliveries, outlined in Figure 3. We analyze these policies based on their cost-effectiveness, applicability across the state, and ability to provide access to food generally, with an added criterion accounting for healthy food specifically. We also review various programs implemented in other Midwest states and analyze them with Iowa's needs in mind. Based on this analysis, we believe that expanding the Farm to Food Tax Credit and HUSH are the best-fit programs for Iowa's needs. We recommend that state legislators review these policies and consider their effectiveness going forward.

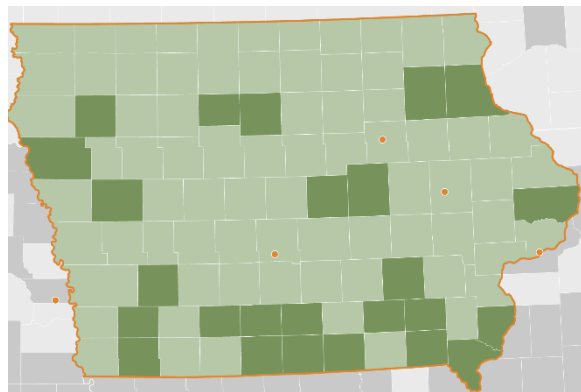
Issue Overview

All 99 counties in Iowa have seen an increase in food insecurity, according to 2023's Map the Meal Gap, Feeding America's annual study (Hacker 2025). Food insecurity, as frequently defined, is the limited or uncertain availability of nutritionally adequate or safe foods. In 2023, 385,130 people in the state were food insecure. This equates to roughly 1 in 8 Iowans, along with 1 in 6 Iowan children facing food insecurity (Hacker 2025).

Iowa, like many other rural states, faces unique hardships in addressing food insecurity. In rural areas, limited access to grocery stores

compounds food insecurity, a phenomenon known as food deserts. In 2021, over 41,000 Iowans

Figure 1: Map of Most Food-Insecure Counties and Their Proximity to Food Banks (Feeding America 2023)



In all dark green counties, over 13.1% of residents are food insecure (Feeding America 2023).

lived in food deserts, which are defined by University of Northern Iowa as areas with a poverty rate greater than 10% and further than 10 miles from an adequate grocery store or food pantry (Burrows 2022).

In many food deserts, the only access to food comes from gas stations or from fast-food restaurants, which rarely sell fresh produce and nutritionally diverse foods. Across Iowa, small, mostly rural grocery stores are on the verge of collapse. Our food banks and pantries struggle to keep up with the growing number of people in need of assistance.

Iowans experience food insecurity for multiple reasons. A person's financial resources and geographical location play a significant role in whether they have proper access to food. In Iowa, estimates show that a meal costs \$3.40, which is 46% of the hourly minimum wage (Feeding America 2023). This meal estimate does not include transportation costs, which may be very high for rural Iowans in food deserts.

51% of the Iowans classified as "food insecure" have incomes above the federal SNAP threshold (Feeding America 2023). This means that thousands of people who lack food are not eligible for the most nationally expansive program to combat food insecurity. Additionally, people in Iowa with sufficient financial resources to afford food live in a food desert, where access to fresh food is limited.

Experts continue to discover the detrimental effects of food insecurity. The most prominent studies report direct associations between inadequate food access and various diet-sensitive chronic diseases. Food insecure populations are more prone to developing diabetes, high blood pressure, obesity, and heart disease. Iowa ranks 7th nationally in obesity rates (Explore Obesity in the United States | AHR 2023). Food insecure adults are 10.5% more likely to be diagnosed with hypertension (Gregory and Coleman-Jensen 2017b). Furthermore, these adults are 15.3% more likely to have any chronic illness than those with high food security

Figure 2: Map of Rural Food Deserts in Iowa (Burrows 2022)

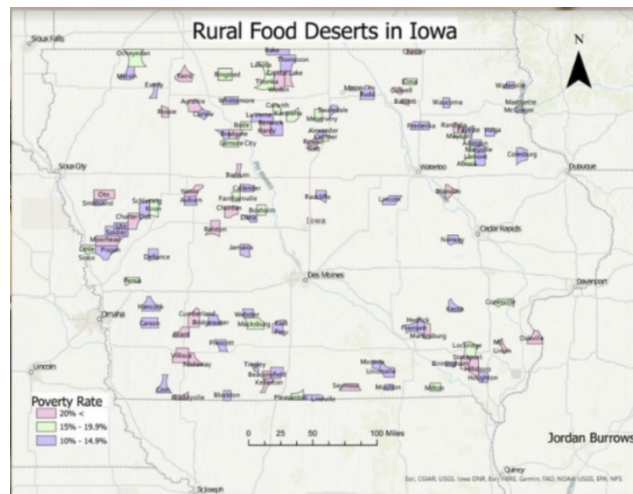


Figure 2 maps Iowa's food deserts. All highlighted areas lack an adequate grocery store within a 10-mile radius. Pink-shaded areas have a poverty rate of at least 20%, light green represents 15% to 19.9% poverty rates, and purple indicates 10% to 14.9%

the

(Gregory and Coleman-Jensen 2017a). Lastly, research shows that adults who experience food insecurity are 2-3 times more likely to have type 2 diabetes (CDC 2024).

Food insecurity exacerbates other public health issues in Iowa. Iowa has the fastest-rising cancer incidence in the country (Iowa Cancer Registry n.d.). Cancer patients have a 28% higher mortality rate if they are food insecure (Lin et al. 2025).

Further, low-income adults on SNAP spend \$1,400 less on healthcare each year than low-income individuals not on SNAP (Berkowitz et al. 2017).

Criteria and Unit-Analysis

In evaluating which potential policy recommendations would best serve Iowa, we considered a matrix of three dimensions of food insecurity. These dimensions include whether the policy is equitable to both rural and urban areas as well as the areas most in need, the cost-effectiveness of the policy, including both short-term, long-term, and return on investment, and how well the policy increases access to food, both in general and specifically healthy and fresh food.

Equity

In analyzing public policies targeting food insecurity across the state, we recommend that a key criterion is a policy's ability to benefit both rural and urban environments. We recognize that food insecurity in urban and rural areas may look quite different and be rooted in distinct causal factors. Given the complexity of Iowa's food environment, a successful policy might not need to target both; therefore, policies with medium or low levels of equity may still be highly beneficial and be recommended in this paper. However, as food insecurity is pervasive throughout the state, the most successful policies should address food insecurity for everyone, regardless of the environment they find themselves in, rural or urban. Along with this, we find it necessary to ensure that the policies recommended are aimed at the places most in need, with the highest food insecurity rates in the state. A successful policy will also make sure to target these counties with the highest food insecurity in the state: Appanoose, Wapello, Cass, Crawford, Clarke, Des Moines, Lee, Clayton, Decatur, and Lucas (Hacker 2025).

To encapsulate this into our policy analysis, we rank a policy's equity on a scale of 1-5. An equity level of 5 addresses food insecurity in urban and rural areas equitably, or nearly

equitably, and successfully addresses issues leading to food insecurity in the top 10 most food insecure counties. A policy with an equity level of 3 still addresses food insecurity in both urban and rural areas and attempts to target issues facing the top 10 counties. Yet, some of their prescribed effects might extend much more to one environment than another, and thus, they have some inequity. Policies with a low equity level of 1 almost entirely address food insecurity in a rural or urban environment, but not both and do not target the issues occurring in the top 10 counties in the state. They might still have some impact on food availability in their non-targeted areas, but these benefits would be minimal and non-substantial.

Cost-Effectiveness

To gauge the cost-effectiveness of a specific policy, we use two prongs to analyze the burdens the state is likely to face. First, the up-front or start-up cost of a specific policy. This includes any infrastructure to be built, lump-sum payments, or some forms of tax breaks a policy would require the state to administer. We also include the long-term costs associated with a policy, such as recurring payments and maintenance costs. Generally, in this category, policies will be assessed by the total cost they impose on the state and how that cost is distributed over time. We also consider the distribution of costs over time to account for positive externalities a policy may confer on the state, such as lower healthcare costs or economic development.

A level 5, cost-effective policy will have both a low up-front cost and a low long-term cost while also creating positive externalities and return on investment, resulting in a low overall financial burden on the state. Level 3 policies have higher total costs; however, this cost may spread out over a long period of time. The cost could also be concentrated in a lump-sum payment up front, yet the total cost of this payment is manageable with little second thought. These policies would also create positive externalities and return on investment for the state, just at a lower amount than high-scoring policies. A 1-point-scoring policy for cost-effectiveness would either require continuous payments that would strain future budgets, entail an up-front cost requiring the state to make substantial room in the budget that year, or yield little to no positive externalities and return on investment. Part of the long-term cost we will consider in each policy is each policy's effect on healthcare costs incurred by patients and the state through programs such as Medicaid and Medicare.

Increasing Food Access

We analyze results at two levels to best measure the multifaceted needs of food in Iowa. Our first level, L1, refers to a policy's capacity to generally increase the affordable food supply across the state. This tier does not distinguish between a food's nutritional quality. L1 is measured on a scale of 1-5. A level 1 policy targeting L1 would provide no additional access to any type of food, while a level 5 policy would provide extensive access to food that may not be the healthiest or have the highest nutritional value, but would eliminate baseline concerns over food supply. We grade a policy by analyzing its foreseeable impacts on the state's food supply. We will infer the effects of a policy from the effects of similar policies in other states, as well as from local practices, and scale each policy's applicability to the entire state.

The concerns targeted by L1, however, are not the only considerations a state should measure for the success of a policy. To address the inadequate nutrition many food-insecure Iowans face, we consider a second level for this criterion. The second level of expanding food access, L2, comments on a policy's ability to expand the amount of nutritional foods that food insecure Iowans have access to. This will be ranked on the same 1-5 scale as L1, with level 1 policies providing no additional access to healthy foods and a level 5 policy providing extensive access to specifically healthy and nutritious food.

Given that advancing the general food accessibility in the state is a more fundamental goal than specifically growing fresh and high-quality food, we will show a priority towards L1 policies over L2. However, many policies enhance both L1 and L2. We generally approach L2 effects as an added plus to a policy. If a primarily L2 policy is highly feasible and of a low cost, we will recommend it regardless of its comparatively low effects on the L1 goal.

Policy Analysis

Status Quo

Food insecurity has affected Iowans across the state for many years, so it is no surprise that there are already multiple programs in place to combat it. While there are many different programs in place, we will address four specific programs in our paper: the Food Insecurity Infrastructure Fund, Help Us Stop Hunger (HUSH), the Farm to Food Donation Tax Credit, and the Supplemental Nutrition Assistance Program (SNAP).

Equity:

While Iowa has multiple programs in place to address food insecurity in the state, many of these programs lack a focus at addressing the root causes of food insecurity or targeting the areas with the most need. Of the four current state programs we discuss in this paper, SNAP is the only one of those that is available statewide and not location dependent such as HUSH and the Farm to Food Donation Tax Credit. Both of these programs require those in need to be in a county or city with participating meat lockers and food pantries, which does not occur for more than half of Iowa's counties.

Cost-Effectiveness:

Iowa's current policies are relatively cost-effective through various measures such as little to no upfront cost, high net gain, or high return on investment for the economy. The HUSH program is almost entirely funded by the \$1 surcharge placed on deer hunting licenses with small administrative costs coming from the Department of Natural Resources operating budget (Help Us Stop Hunger (HUSH) 2024). During 2021, the Farm to Food Donation Tax Credit brought in a net gain of \$318,343 worth of donated food to food pantries across the state (Farm to Food Donation Tax Credit 2024). Along with this, SNAP and other food assistance programs are high return on investment programs that produce \$1.54 in economic activity for every \$1 spent on the program (Llobrera 2025).

Level 1:

The current programs in place throughout the state provide a heavy focus on access to fresh and healthy food over access to food in general. This leads to many unaddressed barriers in Iowans being able to get affordable food for their families due to limitations on what these programs offer. One of the few programs that offers this general assistance is SNAP, which provides people with access to protein, fruit, vegetables, grains, drinks, snacks, and dairy, all of which is important to a well-rounded diet.

Level 2:

A majority of the programs the state offers directly target access to healthy and fresh food for Iowans. The HUSH program provides in need Iowans with access to protein through fresh

venison and the Farm to Food Donation Tax Credit allows farmers to provide freshly grown food to those in need in their community. All of these programs are beneficial to helping Iowans keep a good diet and remain healthy throughout their life.

Figure 3

Current Iowa State Policies

<u>Policy</u>	<u>Description</u>	<u>Cost</u>
Food Insecurity Infrastructure Fund	Funds dedicated to helping food banks and pantries with infrastructure projects to increase Iowans access to healthy and fresh food (ex. refrigeration, storage, distribution networks)	\$5 million in federal funds from the 2021 American Rescue Plan Act (Food Insecurity Infrastructure Fund 2024)
Help Us Stop Hunger (HUSH)	Allows hunters to donate legally hunted deer to meat processing plants to process and be donated to local in need families	\$0 direct cost to the state Facilitating the program comes from DNR operating budget and \$1 surcharge on deer licenses (Help Us Stop Hunger (HUSH) 2024)
Farm to Food Donation Tax Credit	A 15% tax incentive for farmers who donate locally grown food to registered food banks and pantries	2021 Tax Credit Awarded: \$31,970 2021 Donations Value: \$350,313 2021 Net Gain: \$318,343 (Farm to Food Donation Tax Credit 2024)
SNAP	A food assistance program for low-income Iowans and their families that provides a monthly supplement budget for groceries	2022 Administrative Cost: \$21,755,631 (Supplemental Nutrition Assistance Program (SNAP) 2023)

Alternative 1:

Allocate additional funding to increase the frequency of mobile pantries through the food banks

A mobile pantry is a vehicle a food pantry deploys to an underserved, often rural, town or country center to serve a population that otherwise lacks access to a food pantry. This vehicle

drops off food to a local organization, often a church or participating business, for locals from that community to consume. Often, food is set up in tents, where it is handed out for a duration of only hours before the pantry leaves (Food Bank of Iowa n.d.).

In Iowa, the most food insecure counties are rural and have poor access to food pantries. We discovered after researching the 6 food banks in Iowa, only 5 of Iowa's top eleven food insecure counties have access to mobile delivery services.

Iowa's current model places the entire burden of operating on Iowa's six food banks. This results in an often-inadequate mobile delivery service available for Iowans throughout the state. Some counties have no mobile delivery options. Most mobile delivery programs provide their service approximately once a month. Private donors, federal programs, and grants support these programs, with no direct funding from the state. This funding structure creates an unreliable delivery system, leaving many without proper access to transportation unable to receive steady food assistance from food banks.

To resolve this gap, we suggest the state monetarily assist food banks in providing mobile delivery services. This funding, to be used specifically for funding mobile delivery, will help bridge the access gap of Iowa's food pantry system, making food more accessible to all.

Equity:

Providing specific mobile delivery funding would allow food banks to increase the frequency and availability of food in additional, underserved rural areas. Food banks can specifically target specific demographic groups or geographical areas that need the most food assistance. Providing more frequent pantries can provide individuals in need with more reliable food, and more logistical options, for people who work and/or live far from the site.

Cost-Effectiveness:

This alternative would have significant upfront costs to the state for food pantries and distributors that do not have existing mobile delivery. With additional costs for the continuation of current delivery programs. However, providing individuals with higher access to mobile delivery could reduce future costs from the effects of food insecurity, like health problems and low economic activity; especially for elderly populations, a primary client of mobile delivery programs (Villa et al. 2025).

Level 1:

Mobile pantries directly bring food to underserved areas from their respective food pantries and banks. Many individuals do not have access to affordable transportation or any transportation options at all, making mobile pantries potentially the only way they can access food assistance. Krystal Kabela, from The CommUnity Food Bank in Iowa City says, “our mobile pantry and delivery systems usually serve 125 and 175 households each week.”(Kelley 2025). There is not a more effective way to decrease food insecurity than by bringing food directly to the people who need it, earning the level 1 score of 5/5. Additionally, these mobile pantries can be adaptable to current demand, shifting the frequency of mobile pantries in certain areas.

Level 2:

Mobile pantries are an effective way to bring general food to many populations, but they can also present healthier options for individuals. Many rural areas in Iowa do not have adequate access to healthy food options, especially in food deserts. According to food banks across the United States “Mobile pantries offer those in need high-demand items that must be used quickly, including dairy, produce, grains, and meat products.” (Feeding Westchester 2020). Mobile pantries provide these food options for individuals who would have no alternative way to access these necessary, nutritional items. Although, sometimes food banks/pantries do not have as many health items depending on supply, meaning most food brought in a mobile pantry would be general food.

Alternative 2:

Restructure SNAP assistance by factoring in an additional cost-of-living-adjustment for people in food deserts who need to spend additional money on transportation.

Currently, SNAP eligibility revolves around a person’s income, without considering the distance an individual lives from SNAP-eligible distribution sites. Providing SNAP users with funds for groceries helps with the direct cost of food, however, not the transportation costs in accessing SNAP groceries. At the federal level SNAP eligibility includes the Cost-of-Living-Adjustment (COLA) mainly for urban/island areas where costs are exorbitantly high. Alaska,

Hawaii, Guam, and the U.S. Virgin Islands receive the highest benefits from COLA (Cost of Living Adjustment (COLA) Information | Food and Nutrition Service n.d.). Other states such as New York, and Massachusetts provide the highest benefits per person with supplemental SNAP programs, and overall well-being programs (DeJohn, 2025).

This analysis suggests a restructuring of SNAP assistance across the state of Iowa by factoring in an additional COLA that includes the distance someone lives from a pantry or grocery store. This would provide low-income individuals, who have high transportation costs, more SNAP benefits to overcome their added costs. For many Iowans, the act of getting to the market will inhibit them from easy access and adequate nutrition. This would be a more effective way to fight hunger by helping the people who may need it the most who are currently overshadowed by the SNAP program.

Equity:

This change would create more equity between urban and rural places, helping individuals who may not be receiving enough assistance due to additional transportation costs. Additionally, it would potentially allow for people to access different pantries or SNAP-eligible stores to receive more adequate and healthy foods for their needs. Restructuring SNAP would impact people all over the state, including those in the counties that have the highest rates of food insecurity.

Cost-Effectiveness:

SNAP has high-up front and sustained costs that both the federal and state government help pay. However, providing individuals with food will reduce the costs associated with food insecurity effects, a primary one being healthcare. Low-income adults on SNAP spend \$1,400 less on healthcare each year than low-income individuals not on SNAP (Berkowitz et al. 2017). Many individuals that are enrolled in SNAP in Iowa also are supported by state-funded Medicaid, as both are income-based programs. Overall, the upfront costs would save the state a significant amount of healthcare costs because people would be able to participate in healthier/preventative behavior.

Level 1:

SNAP is known as one of the most effective, expansive programs to provide food insecure individuals with reliable food assistance. Many people utilizing SNAP can increase their food security, by shifting their level of food insecure to food-secure. Restructuring the SNAP program so people living in food deserts can have more access, will significantly help individuals have greater access to food in general.

Level 2:

Restructuring SNAP helps bring greater food security to individuals and depending upon the area greater access to healthy food. In places where unhealthy options exist, providing individuals with more assistance to offset the costs of transportation could give them access to distributors with healthier options. Additionally, for people that live closer to a pantry, they could purchase more produce, dairy, meats, and other items depending upon the pantry's supply. However, this program does not ensure people are getting access to specifically healthier food due to differences in stock.

Alternative 3:

Expand the Farm to Food Tax Credit to grocery stores and increase compensation for producers

The current Farm to Food Donation Tax Credit effectively provides the state with a market for purchasing very cheap, fresh, and local food. By allowing producers to recoup 15% of a product's otherwise lost market-value, this creates a mutually beneficial relationship between the state and local producers who have some assurances on unsold, yet food-safe products. For the state, the current food policy opens the market to buy fresh food for 85% cheaper than the market value (Farm to Food Donation Tax Credit 2024). Compared to traditional food stamps, which the state pays at or near market rate for food, this greatly expands the cost-effectiveness of the State's food curation process. However, this policy is limited to only some organizations that are limited to receiving \$5,000 or less (Farm to Food Donation Tax Credit 2024). We advise that the state could expand both the organizations this policy applies to and the amount of food donors may be compensated for, given that this policy saves the state money compared to traditional food curation procedures.

We advise a modified version of the Farm to Food Donation Tax Credit by expanding the total amount farmers may earn through this policy. We also recommend an addition that includes grocery stores, but for a lower earnings rate, possibly in the range of 5-10%. There are some considerations the state must take into account, the largest of which is the capacity of food banks to store and distribute fresh produce. To address this issue, we suggest the state contribute saved earnings to the Food Insecurity Infrastructure Fund, which is run by the state.

Equity:

The Farm to Food Tax credit incentivizes local farmers to grow a wider array of fresh produce and provides state-backed compensation when they cannot find buyers. While incentivizing food production in rural communities is clearly aligned with our goal of making food more accessible to those without access to grocery stores and earns points under the equity criterion, the policy's benefits in this field are somewhat indirect. This best serves as a way to get more affordable foods into Iowa's pantries; it alone cannot be depended on to provide food in every community that needs it throughout the state.

Cost Effectiveness:

Compared to the State's standard food acquisition process, the Farm to Food Tax Credit is highly affordable, providing a framework for purchasing food at 15% of the market rate. Compared to SNAP, the state can obtain fresh foods at 85% of the regular price. While not addressed in this paper or under this criterion, this policy advances the state's goal of localizing food production and diversifying its economy. This policy creates a dilemma where produce farmers, who otherwise may donate their food for free, can now do so for compensation.

Level 1:

This policy could increase the overall food supply by incentivizing grocers to regularly sell surplus food to the State at a substantially reduced rate. However, we do not foresee this occurring regularly enough to dramatically change the state's food supply.

Level 2:

For many of the same reasons as Level 1, this tax policy has the same limitations in Level 2. While it will likely have positive effects, it will not be revolutionary in increasing access to fresh food for Iowans. We predict that expanding this policy will be a relatively inexpensive change with some benefits. This policy's extent in Level 2 ultimately depends on the number of local producers of selected foods; there are not enough farmers producing fresh produce for this policy to provide a comprehensive change. Further, dairy and meat producers typically have greater access to stable markets, reducing the need for donations to recoup potential losses.

Alternative 4:

Expand HUSH to other protein sources

The HUSH program is an effective way for people in need to receive fresh deer meat, as meat lockers are some of the most accessible rural refrigerators across Iowa. Meat lockers receive \$105 per deer processed through a \$1 surcharge on deer hunting licenses. During the 2024-2025 hunting season, deer donations created nearly 520,000 meals for Iowans in 26 participating counties (Help Us Stop Hunger (HUSH) 2024). The HUSH program has shown great success with deer donation, however, there is opportunity to improve. The South Dakota Sportsmen Against Hunger Program allows for the donation of deer, antelope, pheasants, and geese (South Dakota Sportsmen Against Hunger n.d.). In Iowa we have a hunting season for geese, pheasants, deer, and other less hunted game (Iowa Hunting Seasons 2025). Expanding the program to allow for geese and pheasant donation would provide more families, especially those living in food deserts, with fresh meat, and for a longer season, due to different hunting seasons.

Equity:

This expansion would also allow for more hunters, and potentially more meat lockers to become involved in the fight to end hunger in Iowa. More capacity for donations creates the ability to provide more fresh, nutritious meat to families in need living in rural areas. Additionally, individuals following cultural food restrictions could potentially have a greater availability in culturally appropriate protein.

Cost-Effectiveness:

The HUSH program is not funded by the state; instead by a \$1 increase on deer hunting licenses, which could also be implemented on pheasant and goose licenses, having no direct effect on the state budget. Depending on meat lockers current intake of game, they may have upfront costs for equipment and storage for additional types of meat.

Level 1:

This expansion would have no effect on providing individuals with access to general food, as the only food affected by this program is venison, geese, and pheasant meat.

Level 2:

Expanding HUSH would directly provide families and individuals in need with additional nutritious proteins. In 2024-2025, hunters in Iowa donated 2,287 deer, and hunters in South Dakota donated 140 deer, and thousands of geese and pheasants (Help Us Stop Hunger (HUSH) 2024, South Dakota Sportsmen Against Hunger n.d.). South Dakota's effectiveness illustrates how impactful this HUSH expansion could be in providing Iowans with direct access to game meat.

Figure 4: Recommendations Evaluated by Criteria

	Equity	Cost effectiveness	L1 outcome (general)	L2 outcome (healthy/fresh)	Total/20 points
Status Quo	2	3	3	4	12/20
Allocate additional funding to increase the frequency of mobile pantries through the food banks	4	1	5	3	13/20
Restructure eligibility for SNAP to include transportation costs for people living in food deserts	5	4	5	3	17/20
Expand the Farm to Food Tax Credit to grocery stores and increase the amount of compensation for producers.	3	4	4	4	15/20
Expand HUSH to other protein sources	5	5	3	5	18/20

Recommendation

Iowa's food insecurity rates are rising across all counties in Iowa and will inevitably continue to worsen if actions are not taken to address the causes and effects of hunger. Food insecurity is caused by many inequities and societal issues which can come with very costly solutions. Due to this, our approach suggests alternatives that expand our current policies and programs in the State of Iowa, instead of creating entirely new infrastructure. Currently, Iowa's policies lack an emphasis on rural communities, especially for food insecure people living in food deserts, where transportation is a major barrier to adequate nutrition. Additionally, many of our programs specifically focus on access to healthy food, omitting people who have very limited access to any food. Our analysis evaluated four policies the State of Iowa could implement.

Our first alternative proposes providing food banks and pantries with additional funding directly from the State of Iowa for the purpose of expanding mobile pantry operations. Many mobile pantries exist throughout the state, however, they do not operate in some of the most food insecure counties in Iowa. We suggest additional funding could develop mobile pantry programs in these counties and increase the frequency that programs across the state are offered. This alternative is very costly both administratively and in direct funds, however, mobile pantries are the most direct way to provide food to people who live in the most rural areas in Iowa.

Our second alternative suggests restructuring SNAP benefits in the State of Iowa to consider the transportation cost an individual accessing food occurs in rural areas. Transportation costs are a common barrier for people living in rural Iowa, so typical SNAP assistance may not be enough to purchase an adequate amount of food. The federal government has a Cost-of-Living-Adjustment scale for locations with high living costs, but nothing based on rurality. Implementing this system in Iowa for rural individuals could more efficiently assist those with the most need for assistance. This program costs a significant amount of upfront, and long-term; however, SNAP has shown to save states money in terms of healthcare costs.

Our third alternative expands the Farm to Food Tax Credit to include grocery stores and provide producers with more credit. This program assists the state in purchasing food items for 85% less than market value, saving the state a significant amount of funds. Expanding this program could incentivize more local production and allow the state and other purchasing entities to save money.

Lastly, our fourth alternative suggests the expansion of the HUSH program to allow for the donation of geese, and pheasants in combination with our current deer donation. This program is cost-efficient as it has no effect on the state budget, with the suggested \$1 surcharge on pheasant and geese hunting licenses. This expansion could directly bring more families nutritious meat in rural counties struggling with food access.

After reviewing our policy analysis, we strongly recommend that the State of Iowa implement expanding HUSH to accept other forms of game meat and the expansion of the Farm to Food Tax Credit to provide more credit to the producers and potentially involve grocery stores in the program. The most efficient way to help Iowan's dealing with food insecurity is to implement our SNAP restructuring as SNAP is the most widely used food assistance program in the United States. SNAP has proven to reduce food insecurity by 30% and with our restructuring policy rates could be higher than 30% (Feeding America 2022). However, due to upfront overall cost to the state of Iowa for this program, our other recommendations could be more attainable within the current Iowa state budget.

BIBLIOGRAPHY

- Berkowitz, Seth A. et al. 2017. “Supplemental Nutrition Assistance Program (SNAP) Participation and Health Care Expenditures among Low-Income Adults.” *JAMA Internal Medicine* 177(11): 1642. <https://jamanetwork.com/journals/jamainternalmedicine/article-abstract/2653910?redirect=true>.
- Burrows, Jordan. 2022. “Mapping of Rural Iowa Food Deserts | Iowa Waste Reduction Center.” *Uni.edu*. <https://iwrc.uni.edu/blog/food-beverage/mapping-rural-iowa-food-deserts>.
- CDC. 2024. “Diabetes and Food Insecurity.” *Diabetes*. <https://www.cdc.gov/diabetes/healthy-eating/diabetes-food-insecurity.html>.
- “Cost of Living Adjustment (COLA) Information | Food and Nutrition Service.” *www.fns.usda.gov*. <https://www.fns.usda.gov/snap/allotment/COLA>.
- DeJohn, Jaclyn. 2025. “SNAP Reliance and Benefits by State – 2025 Study.” *Smartasset.com*. <https://smartasset.com/data-studies/snap-benefits-2025>.
- “Explore Obesity in the United States | AHR.” 2023. *America’s Health Rankings*. <https://www.americashealthrankings.org/explore/measures/Obesity>.
- “Farm to Food Donation Tax Credit.” 2024. *Department of Revenue*. <https://revenue.iowa.gov/taxes/tax-guidance/tax-credits-deductions-exemption/farm-food-donation-tax-credit>.
- Feeding America. 2022. “What Is SNAP and How to Apply | Feeding America.” *Feedingamerica.org*. <https://www.feedingamerica.org/about-the-supplemental-nutrition-assistance-program-snap>.
- . 2023. “Iowa.” *Feedingamerica.org*. <https://map.feedingamerica.org/county/2023/overall/iowa>.
- Feeding Westchester. 2020. “How the Mobile Food Pantry Is Helping to Fight Hunger.” *Feedingwestchester.org*. <https://blog.feedingwestchester.org/blog/how-the-mobile-food-pantry-is-helping-to-fight-hunger>.
- Food Bank of Iowa. “Mobile Pantry Program.” *Food Bank of Iowa*. <https://foodbankiowa.org/find-food/mobile-pantry-program/>.
- “Food Insecurity Infrastructure Fund.” 2024. *Economic Development & Finance Authority*. <https://opportunityiowa.gov/community/community-infrastructure/food-insecurity-infrastructure-fund> (December 15, 2025).
- Gregory, Christian, and Alisha Coleman-Jensen. 2017a. *What Is the Issue? What Did the Study Find?* https://ers.usda.gov/sites/default/files/_laserfiche/publications/84467/ERR-235_Summary.pdf?v=27015 (December 15, 2025).

- Gregory, Christian, and Alisha Coleman-Jensen. 2017b. “Adults in Households with More Severe Food Insecurity Are More Likely to Have a Chronic Disease | Economic Research Service.” *Usda.gov*. <https://www.ers.usda.gov/amber-waves/2017/october/adults-in-households-with-more-severe-food-insecurity-are-more-likely-to-have-a-chronic-disease>.
- Hacker, Annette. 2025. “Feeding America Study: Food Insecurity Has Increased in Every Iowa County - Food Bank of Iowa.” *Food Bank of Iowa*. <https://foodbankiowa.org/news/feeding-america-study-food-insecurity-increased-in-every-iowa-county/>.
- “Help Us Stop Hunger (HUSH).” 2024. *Department of Natural Resources*. <https://www.iowadnr.gov/programs-services/help-us-stop-hunger-hush>.
- Iowa Cancer Registry. *Why Does Iowa Have the 2nd Highest and Fastest Rising Cancer Rate in the United States?* <https://shri.public-health.uiowa.edu/wp-content/uploads/2024/07/Iowa-Cancer-Registry-Why-Does-Iowa-Have-the-2nd-Highest-and-Fastest-Rising-Cancer-Rate-in-the-US.pdf>.
- “Iowa Hunting Seasons.” 2025. *Department of Natural Resources*. <https://www.iowadnr.gov/things-do/hunting-trapping/iowa-hunting-seasons>.
- Kelley, James. 2025. “Redirecting.” *Google.com*. <https://www.google.com/url?q=https://www.iowapublicradio.org/ipr-news/2025-11-03/food-pantries-food-banks-missing-snap-money&sa=D&source=docs&ust=1765767715343389&usg=AOvVaw1aFR-ZQ40Ypg87jym0WVC7> (December 15, 2025).
- Lin, John C. et al. 2025. “Mortality Outcomes for Survivors of Cancer with Food Insecurity in the US.” *JAMA Health Forum* 6(6): e251381. <https://jamanetwork.com/journals/jama-health-forum/fullarticle/2835283>.
- Llobrera, Joseph. 2025. “SNAP Food Assistance Is a Sound Investment in Our Nation’s Health, Well-Being, and Economy | Center on Budget and Policy Priorities.” *Center on Budget and Policy Priorities*. <https://www.cbpp.org/blog/snap-food-assistance-is-a-sound-investment-in-our-nations-health-well-being-and-economy>.
- “South Dakota Sportsmen against Hunger.” *www.feedtheneedsd.com*. <https://www.feedtheneedsd.com/>.
- Supplemental Nutrition Assistance Program (SNAP)*. 2023. <https://www.legis.iowa.gov/docs/publications/FTNO/1386524.pdf> (December 15, 2025).
- Villa, Lily et al. 2025. “Redirecting.” *Google.com*. <https://www.google.com/url?q=https://pmc.ncbi.nlm.nih.gov/articles/PMC8804235/&sa=D&source=docs&ust=1765767715343685&usg=AOvVaw3LkTdOuG9tcgS0uss3p3gR> (December 15, 2025).

Thirsty Servers: Evaluating the Impact of Data Center Water Use in Iowa

Allison Butz and Conor Degroote

Executive Summary

Iowa has emerged as a major hub for data center development amid rapid growth in artificial intelligence and cloud computing. State leaders have actively encouraged this expansion through generous tax incentives and minimal environmental regulation. While data centers bring investment and high-paying jobs, they also impose substantial and often inflexible demands on local water systems. Drawing on municipal water data from Council Bluffs, West Des Moines, Altoona, and other communities, the paper shows that individual data centers can account for a significant share of local water consumption—up to 30 percent of total municipal pumping in some cases. Our paper investigates whether this high data center demand for water poses a systemic problem for Iowa communities by straining municipal supply.

We find that the risk of data centers with respect to limited water supply is minor in the immediate to near term. Most cities which host large data centers have more than enough supply to support them even in times of drought. However, the sheer quantity of water consumed by data centers might render them politically vulnerable, especially since they often don't provide a direct service to their local communities. We recommend that the state adopt mandatory water use reporting for data centers. We also assess the status quo in addition to two policy alternatives the state might take to reduce this political liability: Adjusting tax incentives to favor water-efficient cooling technologies and incorporating water consumption into the data center permitting process. To evaluate potential policy alternatives, this paper applies four criteria: Political feasibility, effect on data center water demand, economic impact, and fiscal impact.

Background

The data center industry is rapidly increasing amidst the artificial intelligence (AI) boom. Demand for data centers is expected to increase 22% per year from 2023-2030, quadrupling

demand from the 2023 level of 55 gigawatts (GW) to 219 GW in 2030, and AI accounting for 70% of the increase (Srivathsan et al. 2024). This leap in demand will require \$6.7 trillion in capital expenditures to meet, including \$5.2 trillion for AI data centers alone (Noffsinger et al. 2025). It is in this context that Iowa, already home to 95 data centers, has positioned itself as a prime location for new data center construction (Data Center Map n.d). Iowa advertises its plentiful space, cheap renewable energy, low building costs, dense telecommunications infrastructure, and use and property tax exemptions to draw in data centers (IDR 2025; IEDFA 2025). These features have proven attractive: Microsoft built 3.9 million square feet of data center space in West Des Moines, with 2 million more planned; Apple is developing 1.9 million square feet of data center space in Waukee; Google has data center campuses in Council Bluffs and is building another campus in Cedar Rapids; and Meta has developed over 2.7 million square feet of data center space in Altoona, with plans to build more in Davenport (Bolten 2025).

Iowa's emergence as a data-center hub might pose a new threat to Iowa's water systems. Many data centers withdraw large quantities of water for cooling purposes, depending on their size and method of cooling. The thirstiest data centers use millions of gallons per day on average (Yañez-Barnuevo 2025). Such large withdrawals impose a new and significant demand for water on local providers and sources, potentially straining water systems during periods of low supply and diminishing long-term groundwater availability.

Data Center Water Use

Data center water use varies by cooling system. The most water-intensive variety of cooling methods is water-cooled chiller systems (Laudisio 2025). Water-cooled chiller systems extract heat from the building using water-cooled condensers; the heated water then enters cooling towers, where heat is released through evaporating some of the water (Shehabi et al. 2024, 40-41). While the cooling method of many Iowa data centers is unknown, it is possible that Google's data center campus in Council Bluffs uses water-cooled chiller systems, given its large daily water usage: Google's Council Bluffs data centers withdrew 1.41 billion gallons of water in 2024, or roughly 3.86 million gallons per day (mgd) (Google 2025, 110). For reference, per capita domestic water use in Iowa was 65 gallons per day in 2015 (Dieter et al. 2018, 23). In other words, Google's Council Bluffs data center uses as much water per day as 59,400 Iowans.

Even data centers with less water-intensive cooling methods can consume large amounts of water. For instance, Microsoft owns five operational data centers in West Des Moines. These data centers use a mix of direct evaporative cooling during summer months (“10% of the year”) and free air cooling during the rest of the year (Jacobson 2025). Direct evaporative cooling involves drawing in outside air through an “adiabatic layer” of cool, evaporating water, cooling and humidifying the air before circulating it (Microsoft 2025). Free air cooling drops the adiabatic layer, using naturally colder air in cooler seasons or climates to chill servers. As a result, it is less water intensive. Even though Microsoft uses free air cooling for 90% of the year, Microsoft was the top water user in West Des Moines from April 2024 through March 2025, representing a total of 2-7% of the city’s daily water use (Casey 2025). Microsoft used a total of 70.5 million gallons during this period, which by our earlier metric equals the yearly intake of almost 3,000 Iowans. (WDMWW 2025).

This water largely comes from municipal water providers. Municipal water systems supply over 97% of the water used by major data center operators (Bluefield Research 2025). This includes Iowa’s most water-intensive data centers, like Microsoft’s West Des Moines campus, Meta’s in Altoona, and Google’s in Council Bluffs. Given the massive amounts of water these data centers use for cooling, they can constitute a large component of municipal water demand: Dividing the average demand for Google’s Council Bluffs data centers in 2024 (3.86 mgd) by the city’s average demand in 2023 (14.77 mgd) shows that Google’s campus constitutes 26.1% of the city’s water demand; Microsoft’s West Des Moines data centers again represent 2-7% of demand; and Meta’s Altoona campus uses up to 1 mgd during summer months, 20% of the city’s treatment capacity (CBWW 2025b; Google 2025, 110; Casey 2025; Prough 2023).

Laws and Policies

Iowa has left data center water use largely unregulated at the state level. In the absence of state restriction, municipalities must regulate data center water consumption when needed. So far, the most prominent case of this occurred in West Des Moines, where Microsoft’s data centers represent 2-6% of the city’s monthly water use. Facing strain from this large and rapidly expanding source of water demand, West Des Moines Water Works (WDMWW) and the city signed a resolution whereby future Microsoft data center expansions would only be approved if

the new data centers implemented technology to significantly reduce peak water use (WDMWW 2022, 5). Microsoft committed to a new data center design which uses zero water for cooling in 2024, though this change does not affect their existing fleet (Solomon 2024).

Data center businesses in Iowa are also not required to publish their annual water use. Available figures primarily concern data centers with hundreds of thousands of square footage, which use a lot of water but are less common. Where it exists, information on the water use of large data centers is typically provided by the cities that supply them with water or the data center business itself. As a result, information on data center water use in Iowa is incomplete and disorganized, with information on few data centers spread across a multitude of different reports.

While Iowa doesn't regulate data center water use, it has implemented tax incentives aimed at drawing data centers to the state. Iowa's data center tax incentives date back to 2009, when the legislature enacted SF 478. The law allowed data center operators to receive a 50 percent refund on sales and use taxes for equipment purchases or rentals necessary to operate or maintain a data center, as well as on electricity and backup power generation fuel. Eligibility for this refund required investments of \$1–200 million in Iowa within six years of initiating site preparation, with the refund lasting between five and ten years depending on the size of the investment (Iowa General Assembly 2009, 72–74). Data center projects investing more than \$200 million within that six-year window qualified instead for a full and indefinite sales tax exemption on the same categories of purchases (70–71). This indefinite exemption for electricity and backup fuel was later curtailed for data centers built after June 6, 2025: Facilities located in cities with populations over 30,000 are now limited to a ten-year exemption, while those in smaller cities are exempt for fifteen years (Iowa General Assembly 2025, 26–27). In addition to sales tax relief, SF 478 also created a property tax exemption for equipment and other property necessary to data center operations, excluding land and buildings (Iowa General Assembly 2009, 76). Individual cities have added their own 20-year data center property tax incentives, most recently including an abatement on buildings for Apple data centers in Waukee and respective 60% and 70% exemptions on the upcoming Meta and Google data centers in Davenport and Cedar Rapids (City of Waukee 2025; Watson 2024; Payne 2024).

The Problem?

Data centers represent a large and growing component of water demand in Iowa. For context, average daily Iowa public water system water withdrawals in 2015 totaled 390 mgd (Dieter et al. 201, 20). 2024 daily water use by Google's Council Bluffs data center alone constituted roughly 1% of this 2015 statewide total. And that total includes some non-municipal suppliers, as well as the many smaller towns which don't house data centers; the weight of data center water demand is much higher at a local level. Recall that Microsoft was the top user of water in West Des Moines from April 2024 to March 2025, representing 2-7% of the city's daily water use (Jacobson 2025). Meta's Altoona data center represented 8% of the city's use in 2023 (Prough 2023). The total water use of Google's Council Bluffs data center in 2024 equaled almost 30% of all water pumped by the city in 2023 (CBWW 2025a). But does this massive withdrawal of water place too much strain on Iowa's cities?

Public water systems can only pump, treat, and deliver a certain amount of water per day. Take Council Bluffs, a water-rich city. Council Bluffs has very high water delivery capacity: The city can pump a maximum of 48.5 mgd from the Missouri River and Missouri River Alluvium, the city's filters which eliminate remaining particles after treatment have a combined capacity of 24 mgd, and the pumps which take water from the city's purification plant to the city have a capacity of 33.5 mgd (CBWW 2025b). The filters have the smallest capacity and therefore represent a bottleneck – Council Bluffs Water Works cannot deliver more than 24 mgd to consumers in the city, unless they forgo the final filtration step or set aside treated water in reserve when demand is low. But some events can reduce this maximum. For instance, rainfall after periods of drought can increase concentration of contaminants in water, reducing municipal capacity to treat water, and therefore the amount a municipal water system can supply. This happened to the Des Moines area in summer of 2025: Rainfall after a prolonged drought flooded rivers with nitrates and local treatment plants couldn't keep up, so Central Iowa Water Works implemented a ban on lawn watering (Cramer 2025). If the maximum supply of treated water falls below demand, municipalities must restrict water use.

In light of this context, an argument that data centers add to the strain on municipal water supply might look like the following: Data centers limit cities' ability to do so by acting as a large, inflexible block of demand, since cooling is critical to a data center's ability to function.

This is especially true during the summer months, when demand for water from both data centers and the wider public is highest. Many droughts also occur during the summer months in Iowa, heightening risk of nitrate concentrations that reduce the treatment capacity of municipal plants, tightening the bottleneck of water supply when demand is highest. Unless a city expands its capacity to treat water, the degree of drought they can sustain before supply falls below demand will be significantly reduced. But doing so often costs hundreds of thousands, if not millions of dollars (Scanlon 2022, III-20). And as stated earlier, data center water demand is inflexible – without water for cooling, a data center would be forced to shut down to prevent overheating. The burden of reduced water supply is therefore borne by non-data center consumers via lawn-watering bans or more extreme conservation measures. But is this the case in practice?

The answer is generally no: Major data centers in Iowa do not currently threaten the supply of water in Iowa cities. Let's start with Council Bluffs, home to Google's data center campus in Iowa. As mentioned above, Council Bluffs Water Works (CBWW) can filter, and therefore deliver, a maximum of 24 mgd (CBWW 2025b). During summer months, demand peaks around 21.1 mgd, leaving 2.9 mgd of capacity remaining. While this difference is proportionately narrow, Council Bluffs has not had to implement water conservation measures like lawn-watering bans in recent years. This is likely because the larger volume of water passing through the Missouri River dilutes nitrates, comparatively reducing the need for filtration even during droughts. Google has also taken at least one step toward reducing nitrate concentrations in the Missouri River, giving the Great Outdoors Foundation a \$1.3 million grant for grade stabilization projects in Iowa with the intent to reduce surface runoff (Jordan 2024b).

West Des Moines was forced to implement its first ever lawn watering ban in June of 2025 when nitrate concentrations spiked in the Des Moines and Raccoon rivers, reducing the capacity of the region's nitrate removal plant (Cramer 2025). However, WDMWW's general manager stated that data centers were not the issue: Microsoft's West Des Moines data centers consumed around 7% of the city's water during summer, while lawn watering accounted for almost 40% of demand. Central Iowa Water Works, the organization which manages the nitrate removal plant and implemented the watering ban, required a 30% reduction in water use to keep pace, so a lawn-watering ban would have been implemented regardless of whether Microsoft's Data Centers were present. Microsoft has also invested \$20 million into West Des Moines

projects meant to reduce reliance on treatment capacity during peak demand, such a new water tower and an aquifer storage and recovery well.

Of Iowa's data centers, Meta's Altoona campus may place the most strain on municipal supply. The city's data centers use upwards of 1 million gpd during summer months, 20% of the city's 5 mgd treatment capacity (Prough 2023). Altoona was forced to ban water use for lawns or landscaping every other day in June of 2021 amidst a drought, though the demand crunch was attributed to lawn watering; city officials called for another voluntary partial ban in 2025 when water supply was again stretched thin (Bosk 2021; Tam 2025). Altoona does not publish data on water demand by category or major customers, so judging the extent of the strain on Altoona's water system and which sources impact it the most is difficult. Still, the fact that Meta uses a fifth of the city's water treatment capacity on hot days suggests that the data center is a major pressure point, even if lawn watering is more water intensive in Altoona overall.

Implications

Available information suggests that data center water use is not a significant problem in Iowa. Of the Iowa cities hosting major data centers, only Altoona and West Des Moines have recently faced shortfalls in water treatment capacity. Of the two cities, data centers use more treatment capacity in Altoona, and lawn watering is generally considered a greater culprit by city and utility officials. And in the case of West Des Moines, the city was able to ban further construction of data centers by Microsoft unless the company drastically reduced water use. Since the impacts of data center demand for water is relatively smaller than lawn watering, localized to a handful of Iowa cities, and preventable if the cities restrict new construction, data center water use is not an issue demanding state policy intervention.

However, there are still reasons to take state action in reducing data center water use. It is still a problem, if a minor, localized one. And the problem of data center water use is growing in prominence. By December of 2025, 49% of Midwesterners had heard "some" or "a lot" of discussion around building data centers in America, and 30% had heard "some" or "a lot" about data centers being built in their community (Cousens, Smith, and Russel 2025). For 22% of Americans, their first or second greatest concern about data centers is their water use. While Americans are net supportive of building data centers in their local communities (36% in favor to

32% against), the sheer quantity of water used by data centers leaves them vulnerable to political attack. In the context of Iowa's frequent droughts, residents may be increasingly unwilling to stomach a data center consuming tens or hundreds of millions of gallons of water per year while exporting an intangible service to other states or countries. In that respect, taking small steps to reduce data center water use now could hedge against future political blowback, while solving a real, albeit minor, problem. The rest of this paper is dedicated to presenting and evaluating policies Iowa could take to reduce data center water consumption.

Evaluative Criteria

To determine which alternative would best address the problem outlined above, we use four evaluative criteria: Political feasibility, effect on data center water demand, economic impact, and fiscal impact.

Political Feasibility

Political feasibility is an estimate of how likely it is that a given alternative might be passed by the legislature and signed into state law by the governor. In assessing a policy alternative's feasibility, we consider two factors. First, we apply the Iowa government's attitudes toward data centers to the policy. Actions like the passing and signing of tax exemptions for data centers or Governor Reynolds' recent attendance of a data center topping out ceremony suggest that Iowa's legislature and governor are supportive of efforts to draw in data centers to Iowa, and would therefore be less likely to support any policy alternative which limited, obstructed or otherwise dissuaded the construction of data centers in Iowa (KCRG Staff 2025). Second, we examine whether a policy alternative has been attempted in other states. If it has, we examine whether it was passed into law, and whether the republican party in those states supported it. If an alternative failed to become a law in other states, or was opposed by most republican lawmakers, then it might struggle to garner support among Iowa's majority-republican legislature and republican governor.

Effect on Net Data Center Water Demand

Effect on data center water demand is a best guess of how much a given policy alternative will reduce the demand for water from Iowa data centers, relative to how much said data centers offset. Given the limited information on data center water use and the effect of policies in this field, our estimates for this criterion are very rough. We examine data center water use specifically because data center water use is the focus of this paper; alternatives which address the consequences of increased water demand or reduce water demand more generally are beyond this paper's scope.

Economic Impact

Economic impact will gauge how each policy alternative impacts the extent of jobs and investment provided by data centers to the state. Active data centers don't bring much sustained employment; larger data center projects might employ over 1,000 people during construction, but only 100 full-time employees once completed (Dotan 2025). For instance, Microsoft currently employs 400 people across its 4 million square feet of active West Des Moines data centers, or one person per 10,000 square feet (Bolten 2025). Still, these jobs are well-paid, and they add up, especially when considering indirect job creation in sectors which provide services to data centers. 2023 data center employment in Iowa was estimated at 3,990 direct jobs, with another 13,810 created indirectly (The Data Center Coalition 2025, 49). Direct income from these jobs was estimated at \$492 million, and indirect income at \$799 million. Much of the indirect jobs and income stem from the massive scale of investment involved in larger data center projects. Referring back to the example of West Des Moines, Microsoft had invested over \$5 billion into the community as of April 2025 since it began constructing data centers there (Bolten 2025). These economic impacts are the main driver behind Iowa's tax incentive-based efforts to attract data centers to the state, so considering how this is affected by each policy alternative is important.

Fiscal Impact

Fiscal impact will gauge how each policy alternative influences Iowa's budget at both the state and local level. In measuring the fiscal effect of alternatives, two areas will be considered:

Taxation and cost. Taxation considers the effect of an alternative on tax revenues earned from data center construction and operation through state sales and use taxes, Local Option Service Taxes (LOSTs), franchise fees, and property taxes. While data centers, especially large projects, are given significant property and sales tax breaks, they are costly enough pieces of infrastructure that they still bring a lot of revenue to local communities. Additionally, the state sales and use tax exemptions explicitly do not extend to the 1% local option sales taxes or franchise fees present in almost all Iowa communities. Cost assesses how much money each alternative would cost the state government to implement. Taxation minus cost results in an alternative's fiscal impact. Alternatives with a greater, positive fiscal impact are preferable to those with a negative fiscal impact.

Initial Recommendation

Information on both available groundwater resources and data center water use in Iowa is outdated and incomplete. A lack of up-to-date information on data center-level water use somewhat limits a precise diagnosis of the scale and urgency of the problem and makes implementing policies to reduce data center groundwater use difficult. While many of Iowa's largest data centers or their municipal water providers publish annual water use figures, others, such as Meta's Altoona campus or Apple's Waukee campus, do not. With smaller data centers, which are less water-intensive but more numerous, information on water use is much sparser. Therefore, before going through policy alternatives, we first suggest a policy recommendation which would ideally serve as a prerequisite to the implementation of any other policy alternatives: Data center water use reporting.

Currently, the State of Iowa requires any entity which withdraws more than 25,000 gallons within a 24-hour period during any calendar year to apply for a water use permit, which includes submitting an annual report to the Iowa DNR on water use (DNR 2025). However, these use permits do not extend to data centers which purchase water from municipal water utilities, which source 97% of the water used by major data center operators (Bluefield Research 2025). Mandatory annual water use reporting would address incomplete information on data center water use by compelling data centers to consistently submit information about how much water they use. Ideally, mandatory water use reporting would only apply to data centers which

consume large quantities of water; for instance, a floor of 100,000 gallons used in a 24-hour period or some other minimum water use requirement might accomplish this.

We acknowledge that this recommendation is less politically feasible than funding groundwater surveys. The New Jersey Legislature passed a bill this year requiring data centers to annually report their water use, but the bill was largely opposed by Republican legislators, and Democratic Governor Phil Murphy conditionally vetoed the bill, pending an investigation into the effect of data centers on New Jerseyans' utilities (Biryukov 2025; LegiScan 2025d; LegiScan 2025e). A similar bill in passed in California would have implemented data center water use reporting requirements into business license applications and renewal; it likewise faced majority opposition from Republican legislators and was vetoed by Democratic Governor Gavin Newsom (Legiscan 2025a; Skidmore 2025). Given the lack of Republican support for these bills, and the fact that they were vetoed by democratic governors, it may be difficult for similar reporting requirements to become law in Iowa with its Republican trifecta.

A mandatory reporting requirement for data centers would be fiscally inexpensive. The DNR water use permitting program, which includes annual water use reporting, costs less than \$500,000 per year with over 3,000 permit holders (ABI 2018). A program solely managing water use reports for a few dozen large data centers would doubtless be much cheaper. Incorporating data center water reporting into the existing water use permit reporting program could reduce costs further. And the water use permit program is self-funded via an annual permit fee of around \$100. A similar fee could be implemented for data center operators to fully cover government costs associated with the new reporting requirement.

As an additional note, while there are no federal regulations governing data center water use, the Trump administration has expressed an interest in restricting the ability of states to regulate AI data centers specifically. In a December executive order, President Donald Trump announced the establishment of an AI litigation taskforce to challenge state laws seen as overly burdensome on AI, as well as conditioning access to funding from the Broadband Equity Access and Deployment Program (White House 2025). Such laws include those which “may compel AI developers or deployers to disclose or report information in a manner that would violate the First Amendment or any other provision of the Constitution”. This statement is vague but could encompass mandatory data center water use reporting. The order is more broadly indicative of

the current administration's aversion to state-level AI regulation, which could result in federal opposition to attempts to reduce AI water use. We do not consider possible pushback from the current presidential administration in our criteria or analysis of alternatives, as the executive order is new and it is not clear how it will be implemented, or if it will endure legal scrutiny or political blowback. But the status of this order, attempts to enforce it, and other anti-regulatory steps taken by the executive branch should be revisited before implementing a reporting requirement or the alternatives below.

A permitting requirement alone would have little to no effect on net data center water use or data center economic gains.

Alternatives

Given the relative novelty of data centers and their water use in national discourse, very little legislation or policy is currently in place to address the issue, and what does exist has been implemented very recently. Given the lack of existing results to pull from, it is difficult to accurately judge or measure the impact policies aimed at reducing data center water use might have on the behavior of data center businesses, let alone make an informed recommendation. We therefore instead list and roughly assess some policy alternatives worth further exploration

Status Quo

Iowa could maintain the status quo. This route would involve the state refraining from imposing restrictions on data center water use. Localities would be left to tackle the problem of data center water use themselves, should they choose to do so. Existing tax incentives would remain the same.

Maintaining the status quo is the most politically feasible alternative, as it is what is currently in place. Iowa's legislature and governor are not clamoring for data center regulation, and the status quo would continue the rapid rate of data center construction in Iowa, which the state government favors. Most other states also have yet to regulate data center water use. The main risk to political feasibility is the possibility of future popular awareness of and dissatisfaction with high water demand from data centers. Data center water use is currently a

niche issue when compared to electricity use, so it is not a prominent feature of Iowa politics. But the large quantities involved lend themselves to negative initial impressions – if you tell someone that Google’s Council Bluffs data center uses over 1 mgd of water, they’ll likely think that’s bad. The local stresses imposed by data centers on city water supplies could also result in pushback from city residents. If water use or availability ever break their way into Iowa’s popular political discourse, the status quo would likely no longer be politically feasible.

Maintaining the status quo would somewhat increase net data center water demand. Large, water-intensive data centers continue to be built in Iowa, like Google’s upcoming Cedar Rapids data center. Some cities and data center businesses may follow the West Des Moines-Microsoft route and agree to zero water use for all new data centers, though this would not reduce the impact of water demand from already-built data centers. Many data center businesses are taking or have pledged to take steps to reduce or offset their water use through implementing more water-efficient cooling technologies, building local water infrastructure, or contributing funds to water-positive projects like wetland restoration.

Maintaining the status quo would positively impact Iowa’s economy. Currently, companies are investing a lot of money in developing their data centers in Iowa. Nearly \$14.7 billion has been, or is planned to be, invested in Iowa data centers, with over 5.3 million square feet of data center space proposed, under construction, or operational as of April 2025 (Bolten 2025). As stated earlier, the jobs data centers supply are few but well-paying. The status quo would see continued construction of data centers, bringing more jobs and investment into Iowa.

Maintaining the status quo would also have a somewhat positive fiscal impact. More data center construction would result in more data centers paying taxes, although Iowa’s exemptions substantially reduce revenues from data centers in the short to medium term.

Tax Incentives

Another option for Iowa is adjusting the state’s tax incentives to favor less water intensive cooling methods. There are several alternatives to water intensive cooling; Immersion and Direct to Chip cooling are both technologies that use a thermally conductive fluid in place of water to regulate temperatures; free air cooling circulates external air during colder months, and air-cooled chillers use refrigerant (MacDiarmid 2025; BPA 2018, 120) . The state could repurpose existing data center tax incentives, restricting their future application to data centers which use

these cooling methods. Alternatively, the state could lengthen or strengthen tax exemptions for data center projects utilizing less water-intensive cooling. Other states have introduced similar legislation: S.B. 58 “Data Center Green Tax Credit” was introduced in the California Senate and would offer tax credits to data centers that employ water-efficient cooling methods (Legiscan 2025b). And Colorado introduced H.B. 26-1030, which would provide sales and use tax exemptions for data center operators that adhere to certain environmental standards, including water stewardship. Iowa could take inspiration from these bills in formulating its own criteria for water-friendly tax incentives (Schmelzer 2025).

From a political feasibility standpoint, adjusting the existing tax incentives seems possible, depending on the implementation. Iowa’s current government favors policies which attract data centers, so passing legislation restricting existing tax incentives to low-water data centers may be less feasible than offering lengthened or added tax exemptions for low-water data centers. However, Iowa did reduce the duration of data center tax exemptions through HF 976, so further restrictions of existing exemptions still have a chance of passing (Iowa General Assembly 2025, 26-27). Looking to similar laws in other states, environment-based data center tax credits have been introduced but not yet passed in Colorado and California. Since neither bill has yet passed or failed to pass, and both legislatures are Democrat-controlled, their bills give no indication of this alternative’s political feasibility in Iowa.

Employing adjusted tax incentives which favor more water efficient cooling methods would slightly reduce the net water demand of data centers in Iowa. Since already-constructed data centers wouldn’t be impacted, data center businesses would have little incentive to implement less water-intensive cooling methods at their existing data centers. And since the policy is an incentive, rather than a strict requirement, some data center businesses might continue to employ more water-intensive cooling methods. Data center businesses are happy to build in Iowa under existing tax incentives, so simply expanding tax incentives to reduce water use may not influence data center behavior much. And even if incentives were instead restricted to low-use projects, data center businesses aren’t necessarily making construction decisions based on tax incentives. According to Bo Willians, Microsoft’s executive responsible for the company’s North America data centers, almost all of the company’s site selection or placement decisions are not decided on the location’s tax incentives (Weise 2024). This may not hold true

for other companies, but it does suggest that some would continue to operate as they do under the status quo, resulting in a minor decrease in water use.

The economic impacts of adjusting data center tax incentives are neutral relative to the status quo for similar reasons. If data center operators aren't changing their site selection based on tax incentives, then altering Iowa's tax incentives would not significantly change the rate of data center construction in the state. And since data center construction in the state is continuing, Iowa would still see an increasing economic impact from data centers, as we would under the status quo.

This alternative's fiscal impact varies depending on how it's implemented. The overall cost of verifying data centers' cooling methods is assumed to be small. An on-site inspection or using data from yearly data center reporting would suffice. The net taxable valuation would also likely remain similar to the status quo, since the tax changes are assumed to not significantly alter rates of data center construction in Iowa. The main change in revenue would stem from the manner in which existing exemptions are changed. If tax exemptions were expanded for low-water data centers, then data center tax revenues would drop slightly as future low-water data centers pay less in taxes. If tax exemptions were instead restricted to low-water data centers, then tax revenues would increase: Water-intensive data centers would still be constructed, so that future pool of data centers would no longer receive existing tax breaks; and since data center properties involve significant investment, they would have to pay a lot in state sales and property taxes.

Permitting Criteria

Iowa could incorporate water consumption into the permitting process for data centers. Iowa DNR would assess proposals on a case-by-case basis and reject them if the project is assessed to withdraw too much from Iowa's water supply. This alternative is inspired by the regulations that Minnesota passed in H.F. 16 during their most recent legislative session (Minnesota Office of the Revisor of Statutes 2025). Minnesota's new water use permitting law applies to data centers whose proposed consumptive use exceeds 100,000,000 gallons per year. The department can request the following information to support their assessment of the proposition: Project description, estimated water use rates/volumes for the maximum day/month/year, anticipated

water source, water quality and temperature requirements for the proposed facility. They may request additional information. The commissioner then evaluates the presented details and describes the potential water supply constraints and impact of a potential project on water quality and quantity. It is specified that the department must ensure that public health, safety, and welfare are adequately protected in their decision. Technologies and measures that promote the conservation of Minnesota's water and efficient use of water and water shed health are to be reasonably considered. Data centers are encouraged to use water efficient practices by recycling water before discharging and partnering with local water utility companies to use the discharged water. Iowa could adopt a similar measure applied to all future data center projects to ensure that local water supplies are not as negatively impacted by data center water demand.

Water-based permitting for data centers is the least politically feasible of our alternatives. It would restrict and delay the construction of new data centers in Iowa, which contradicts the current pro-data center attitude of Iowa's government. Interestingly, the Minnesota bill did pass with majority Republican support in Minnesota's legislature: H.F. 16 passed 85-43 in the House and 40-26 in the Senate (Minnesota Office of the Revisor Statutes 2025) The bill was authored by a Democrat and Republican and had bipartisan support in the legislature, with higher rates of support amongst Republican legislators than Democratic legislators (Minnesota Office of the Revisor of Statutes 2025; Legiscan 2025c). However, would err towards giving the Iowa legislature's general pro-data center feelings more weight than those of Minnesota Republicans in judging the permitting's political feasibility, so this alternative is less feasible than either of the prior two.

Approving data center projects based on how much water they would consume would reduce net data center water demand relative to the status quo. Minnesota's permitting process incentivizes reduced water consumption on data centers at multiple steps, from taking into consideration water-saving technologies to encouraging use of recycling water or using non-potable water. It also directly addresses problems arising from increased water demand by factoring in local supply. Still, a lot depends on the strength of implementation. Project approval would depend on the DNR's opinion of what constitutes "too much" water use for a given data center at a given site.

The economic impact this would have in Iowa is negative relative to the status quo. Data center companies investing in Minnesota argue that this could “stall development and expose trade secrets” (Orenstein 2025). The permitting process would take time, delaying construction of large data centers, and by extent the economic benefits they bring. Adding time to data center construction in such a rapidly expanding field could also drive away some large data center businesses altogether, taking their investments and jobs to other states.

The financial impact of this program would also be negative. Even if Iowa applied the same 100 million gallons per year minimum for projects to require a permit, establishing a new and extensive permitting process would cost money. Additionally, if the permit requirement drove away major projects, Iowa would bring in less data center tax revenues.

Conclusion

This paper has evaluated whether the expansion of data centers in Iowa poses a significant challenge to municipal water systems and, by extension, whether it warrants state-level policy intervention. Using municipal capacity and data center consumption data from Iowa cities, we find that data center water use does not currently threaten water availability in most host communities, even during periods of elevated demand and restricted supply. Still, the scale and visibility of data center water consumption, combined with Iowa’s exposure to periodic drought and water quality constraints, suggest that the issue could rise in political salience. For that reason, state policymakers should consider policy options to reduce data center water use.

Among the policy options presented, we recommend that the state at least implement mandatory water use reporting for large data centers. Improved reporting would address current information gaps, allowing state agencies and municipalities to better assess data center water use impacts and inform policies to reduce water use. Importantly, such a requirement would not directly restrict data center construction or operations, making it more compatible with Iowa’s pro-growth political environment. Beyond water use reporting, further action depends on the state’s objectives: Keep with the status quo to see how further data center growth affects Iowa, implement cooling method-dependent tax exemptions to slightly reduce water use at minimal

expense, or implement a new permitting structure to ensure local water availability at the cost of driving away some businesses.

Overall, this paper concludes that while data center water use is not an urgent problem in Iowa, it is suited to preventative policy action. Modest reforms focused on transparency and water efficiency can reduce long-term political and water supply risks, better aligning Iowa's data center strategy with sustainable water management without sacrificing the economic benefits that have made the state an attractive destination for data center investment.

BIBLIOGRAPHY

- Biryukov, Nikita. 2025. "Governor Seeks Changes to Data Center Bill, Wants Study on Impact." *New Jersey Monitor*. <https://newjerseymonitor.com/2025/10/20/governor-data-centers-veto>.
- Bluefield Research. 2025. "U.S. Water-Related Expenditures for Data Centers to Exceed US\$4.1 Billion through 2030." <https://www.bluefieldresearch.com/ns/u-s-water-related-expenditures-for-data-centers-to-exceed-us4-1-billion-through-2030>.
- Bolten, Kathy. 2025. "Growth of Data Centers in Iowa." *Business Record*. <https://www.businessrecord.com/growth-of-data-centers-in-iowa>.
- Bonneville Power Administration. 2018. *HVAC Technology Guide*. <https://www.bpa.gov/-/media/Aep/energy-efficiency/momentum-savings/2018-bpa-hvac-technology-guide.pdf>.
- Bosk, Felicity. 2021. "Altoona Public Works Director Explains Partial Water Ban." *WQOW*. https://www.wqow.com/news/altoona-public-works-director-explains-partial-water-ban/article_cd545f4d-b476-5e08-acaf-18329c0bb977.html.
- Casey, Evan. 2025. "Microsoft Built 5 Data Center Campuses in This Iowa City. Here's What Wisconsin Can Expect." *Wisconsin Public Radio*. <https://www.wpr.org/news/microsoft-data-center-iowa-wisconsin-expect>. Info on Microsoft water use and cooling methods in West Des Moines
- City of Waukee. 2017. "Apple Valuation Correction." *Waukee.org*. <https://www.waukee.org/1206/Apple-Valuation-Correction?>.
- City of Waukee. 2025. "Water Quality." <https://www.waukee.org/148/Water-Quality?>.
- Council Bluffs Water Works (CBWW). 2025a. "General Information." <https://www.cbwaterworks.com/about/general-information/>.
- . 2025b. "Water Quality." <https://www.cbwaterworks.com/water-quality/>.
- Cousens, Maryann, Ian Smith, and Rachael Russel. 2025. "Views of AI and Data Centers." *Navigator*. <https://navigatorresearch.org/views-of-ai-and-data-centers/>.
- Cramer, Rachel. 2025. "A Lawn Watering Ban in the Des Moines Area Brings Treatment Capacity Plans to the Forefront." *Iowa Public Radio*. <https://www.iowapublicradio.org/ipr-news/2025-06-20/des-moines-lawn-watering-ban-central-iowa?>.
- Data Center Map. 2025. "Iowa Data Centers." <https://www.datacentermap.com/usa/iowa/>.
- Dieter, Cheryl A. et al. 2018. *Estimated Use of Water in the United States in 2015*. United States Geological Survey. <https://pubs.usgs.gov/publication>.

- Dotan, Tom. 2025. “The AI Data-Center Boom Is a Job-Creation Bust.” *The Wall Street Journal*. https://www.wsj.com/tech/ai-data-center-job-creation-48038b67?gaa_at=eafs&gaa_n=AWetsqfNd11_OrwCq26bYYhETf06CFxNm6HujBi2Xifqf9MS012Fz5xwMN9LDuwQWxo%3D&gaa_ts=69898fa4&gaa_sig=9UZ3R60jDy_XNVnzFANfuM-Xm3ecuQPCukWjfDsQm3c2JGvww8in92tpFM_AhIwP5h6I-l_1U95eWvr1YtXLzw%3D%3D.
- Google. 2025. “Google Environmental Report .” *Google Sustainability*. <https://sustainability.google/reports/google-2025-environmental-report/>.
- Iowa Association of Business and Industry (ABI). 2018. “Water Use Annual Permit Fee on September 18 EPC Agenda.” <https://www.iowaabi.org/news/legislative-news/water-use-annual-permit-fee-on-september-18-epc-agenda>.
- Iowa Department of Natural Resources (DNR). 2025. “Water Allocation & Use.” <https://www.iowadnr.gov/environmental-protection/water-quality/water-supply-engineering/water-allocation-use>.
- Iowa Department of Revenue (IDR). 2025. “Data Center Sales and Use Tax Incentives.” <https://revenue.iowa.gov/taxes/tax-guidance/sales-use-excise-tax/data-centers>.
- Iowa Economic Development and Finance Authority (IEDFA). 2025. “Data Centers.” <https://opportunityiowa.gov/business/iowa-advantage/key-industries/finance-insurance/data-centers>.
- Iowa General Assembly. 2009. *Senate File 478 (83rd General Assembly): Bill Book*. Iowa Legislature. <https://www.legis.iowa.gov/legislation/BillBook?ba=SF%20478&ga=83>
- Iowa General Assembly. 2025. *House File 976 (91st General Assembly): Bill Book*. Iowa Legislature. <https://www.legis.iowa.gov/legislation/BillBook?ga=91&ba=HF976>
- Jacobson, Ophelie. 2025. “Get the Facts: How Much Water Do West Des Moines Data Centers Actually Use?” *KCCI 8 Des Moines*. <https://www.kcci.com/article/get-the-facts-how-much-water-do-west-des-moines-data-centers-actually-use/65105524>.
- Jordan, Erin. 2024a. “Google Data Center Would Be among Cedar Rapids’ Largest Water and Energy Users.” *The Gazette*. <https://www.thegazette.com/environment-nature/google-data-center-would-be-among-cedar-rapids-largest-water-and-energy-users/>.
- . 2024b. “Google Will Spend Another \$1B on Council Bluffs Data Center, \$1.3M for River Restoration.” *The Gazette*. <https://www.thegazette.com/energy/google-will-spend-another-1b-on-council-bluffs-data-center-1-3m-for-river-restoration/>.
- . 2024c. “With Data Centers and Drought, Iowa Studies Aquifers.” *The Gazette*. <https://www.thegazette.com/environment-nature/with-data-centers-and-drought-iowa-studies-aquifers/>.

- KCRG Staff. 2025. “Officials Hold Topping out Ceremony for \$10 Billion Cedar Rapids Data Center Campus.” *kcrg.com*. <https://www.kcrg.com/2025/10/22/officials-hold-topping-out-ceremony-10-billion-cedar-rapids-data-center-campus/>.
- Laudisio, Victor, Henrik Cotran, Natalie Wu, and Francesca Pisaroni. 2025. “Beneath the Surface: Water Stress in Data Centers.” *S&P Global*. <https://www.spglobal.com/sustainable1/en/insights/special-editorial/beneath-the-surface-water-stress-in-data-centers>.
- LegiScan. 2025a. “California Assembly Bill 93 — Papan Concurrence in Senate Amendments.” *LegiScan – Bill Tracking for California*. October 11, 2025. <https://legiscan.com/CA/drafts/AB411/2025>
- . 2025b. “California Senate Bill 58.” *LegiScan – Bill Tracking for California*. January 1, 2025. <https://legiscan.com/CA/text/SB58/id/3044107>.
- . 2025c. “Minnesota House File 16.” *LegiScan – Bill Tracking for Minnesota*. June 14, 2025. <https://legiscan.com/MN/votes/HF16/2025/X1>
- . 2025d. “Roll Call: New Jersey S4293 — Assembly Floor: Third Reading – Final Passage.” *LegiScan – Bill Tracking for New Jersey*. June 30, 2025. <https://legiscan.com/NJ/rollcall/S4293/id/1596726>
- . 2025e. “Roll Call: New Jersey S4293 — Senate Floor: Concur in Assembly Amendments.” *LegiScan – Bill Tracking for New Jersey*. June 30, 2025. <https://legiscan.com/NJ/rollcall/S4293/id/2854038>
- MacDiarmid, Alexandra. 2025. “Single-Phase Immersion Cooling vs Direct to Chip Cooling: An Introduction .” *Submer*. <https://submer.com/blog/single-phase-immersion-cooling-vs-direct-to-chip-cooling/> (December 18, 2025).
- Microsoft. 2025. *Modern Datacenter Cooling*. https://datacenters.microsoft.com/wp-content/uploads/2023/05/Azure_Modern-Datacenter-Cooling_Infographic.pdf. Info on direct evaporative and free air cooling methods
- Minnesota Office of the Revisor of Statutes. 2025. “HF 16 Status in the House - 94th Legislature (2025 - 2026).” *Minnesota Legislature*. <https://www.revisor.mn.gov/bills/94/2025/0/HF/16/>.
- Noffsinger, Jesse et al. 2025. “The Cost of Compute: A \$7 Trillion Dollar Race to Scale Data Centers.” *McKinsey & Company | Technology, Media & Telecommunications*. <https://www.mckinsey.com/industries/technology-media-and-telecommunications/our-insights/the-cost-of-compute-a-7-trillion-dollar-race-to-scale-data-centers>.
- Orenstein, Walker. 2025. “Minnesota Bill Would Regulate Data Centers’ Water Use.” *government technology*. <https://www.govtech.com/artificial-intelligence/minnesota-bill-would-regulate-data-centers-water-use>.

- Payne, Marissa. 2024. "State Panel Signs off on Cedar Rapids' \$56 Million Tax Break for Google Data Center." *The Gazette*. <https://www.thegazette.com/business/state-panel-signs-off-on-cedar-rapids-56-million-tax-break-for-google-data-center/>.
- Prough, Gabe. 2023. "How Much Water Do Iowa Data Centers Use?" *WHO 13*. <https://who13.com/news/iowa-news/how-much-water-do-iowa-data-centers-use/>.
- Scanlon, Joshua. 2022. *City of Swisher, Iowa Water System Improvements - Preliminary Engineering Report*.
- Schmelzer, Elise. 2025. "Colorado Bill Would Give Tax Breaks to New Data Centers." *GovTech*. <https://www.govtech.com/artificial-intelligence/colorado-bill-would-give-tax-breaks-to-new-data-centers>.
- Skidmore, Zachary. 2025. "California Governor Vetoes Data Center Water Use Bill - Report." *Data Center Dynamics*. <https://www.datacenterdynamics.com/en/news/california-governor-vetos-data-center-water-use-bill-report>.
- Solomon, Steve. 2024. "Sustainable by Design: Next-Generation Datacenters Consume Zero Water for Cooling | the Microsoft Cloud Blog." *The Microsoft Cloud Blog*. <https://www.microsoft.com/en-us/microsoft-cloud/blog/2024/12/09/sustainable-by-design-next-generation-datacenters-consume-zero-water-for-cooling/>.
- Srivathsan, Bhargs et al. 2024. "AI Power: Expanding Data Center Capacity to Meet Growing Demand." *McKinsey & Company | Technology, Media & Telecommunications*. <https://www.mckinsey.com/industries/technology-media-and-telecommunications/our-insights/ai-power-expanding-data-center-capacity-to-meet-growing-demand?>.
- Tam, Nicole. 2025. "Altoona Asking Residents to Cut Back on Lawn Watering." *KCCI 8*. <https://www.kcci.com/article/altoona-asking-residents-to-cut-back-on-lawn-watering/65162699>
- Watson, Sarah. 2024. "Meta behind Plans for Latest Iowa Data Center." *The Gazette*. <https://www.thegazette.com/news/meta-behind-plans-for-latest-iowa-data-center>.
- West Des Moines Water Works (WDMWW). 2022. *West Des Moines Water Works Board of Trustees Meeting Communication*.
- . 2025. *March 2025 Financial Statements*. West Des Moines, IA: West Des Moines Water Works. Memorandum containing unaudited financial statements and a list of large water users.
- White House. 2025. "Ensuring a National Policy Framework for Artificial Intelligence." Executive Order, December 11, 2025. The White House, Washington, DC. <https://www.whitehouse.gov/presidential-actions/2025/12/eliminating-state-law-obstruction-of-national-artificial-intelligence-policy/>

Yañez-Barnuevo, Miguel. 2025. "Data Centers and Water Consumption." *Environmental and Energy Study Institute*. <https://www.eesi.org/articles/view/data-centers-and-water-consumption>.

A Review of Iowa's Mentoring and Induction Plan

Sydney Bellinghausen, Emma Lalor, Mary Oriho**

Executive Summary

This article analyzes Iowa's Mentoring and Induction Program (M&I) and the additional programming option included in the 2017 revision, Teacher Leadership and Compensation Program (TLC). Iowa's M&I program was introduced as a part of the Teacher Quality legislative initiative enacted in 2001. The goal of the M&I program is to enhance beginning teacher support through mentoring and induction efforts by fostering a supportive work environment, improving student achievement, and retaining high-quality educators. In 2017, the State revisited this goal and revised the program to include a second option, the Teacher Leadership and Compensation program. A comprehensive analysis of both program options is imperative for continuing Iowa's efforts in enhanced educational programming throughout the state. This report employs a research-based analysis of the goals of the M&I program option, as well as the TLC program option. This report evaluates each goal outlined by the programs: first-year teacher retention and attraction, student achievement scores, and educator well-being. This report does this by reviewing prior TLC program reports and external datasets to identify trends in education and assess the program's goal achievement. Additionally, we review a prior analysis of the TLC program conducted by the American Institute of Research. This report found that, despite a general increase in supportive resources, initiatives, and programming for beginning educators in Iowa, statistical results have remained stagnant over the last two decades, with no significant change in first-year teacher retention, student achievement scores, or educators' well-being. In light of these findings, in alignment with the American Institute of Research, this report recommends the following for the state of Iowa. First, they adopt a strict data-collection policy, ensuring accurate data on teacher retention, turnover rates, and well-being to support future review efforts. Second, Iowa implements a student-centered mentorship program in the Mentorship and Induction program. Lastly, Iowa established a small grant program to support teacher mentors' mentoring efforts. Each of these recommendations is designed to supplement

**Sydney and Mary were contributing authors in an earlier version of this report.*

the existing Mentoring and Inductions program and the Teacher Leadership and Compensation program.

Introduction

This article analyzes Iowa's Mentoring and Induction Program (M&I) and the additional programming option included in the 2017 revision, Teacher Leadership and Compensation System (TLC). This report employs a research-based analysis of the goals of the M&I program option as well as the TLC program option, first-year teacher retention and attraction, student achievement scores, and the well-being of our educators. This report does this by reviewing prior program reports as well as outside data sets to compare and apply trends in data education in order to determine the success of the goals of the program.

This report found that despite a general increase in supportive resources, initiatives, and programming for beginning educators in Iowa, statistical results have remained stagnant in the last two decades, with no change in first-year teacher retention, student achievement scores, or the well-being of our educators. Reviewing Iowa's Mentoring and Induction Plan, as well as the Teacher Leadership and Compensation System, allows one to gauge how successful these programs have been and can help inform future policy development. This review can also ensure that outdated regulations are updated, possibly improving effectiveness. This report recommends two alternatives for improving the Mentorship and Induction Plan: 1) implementing student-based mentoring, and 2) small grant programs.

Background and Policy Context

Iowa's Mentoring and Induction Program was first introduced in 2001 as part of the Teacher Quality legislation to support beginning teachers. Since 2001, this program has remained virtually unchanged. This is a two-year, state-funded program meant to address beginning teachers' personal and professional needs while providing training on Iowa Teaching Standards. Educators must be employed by a school district or education agency and are paired with a non-evaluative peer mentor. Each school district or AEA that offers a beginning teacher mentoring and induction program shall develop a sequential, two-year plan based on the Iowa Teaching Standards.

During the 2013 Legislative Session, HF 215, Education Reform Appropriations Act,

created the Teacher Leadership and Compensation system with goals to attract new teachers by offering competitive starting salaries, retain effective teachers, promote collaboration, reward professional growth, and improve student achievement (“Mentoring and Induction Plan”, 2017). Teacher leaders are to take on extra responsibilities, including helping peers fine-tune instructional strategies as well as coaching and co-teaching. In 2017, they intertwined these programs, and districts were now given two options to support new teachers according to Iowa’s Mentoring and Induction Program:

- 1) Continue to Provide a Beginning Teacher Mentoring and Induction Program
- 2) Utilize the District’s Teacher Leadership and Compensation Plan for Supporting New Teachers

The TLC program is about funding schools and providing leadership in order to improve education. In fiscal year 2021, Iowa allocated \$340.89 per student for each district to implement their TLC plans, and there are five ways in which these funds may be used:

- 1) TLC funds can be used to provide salary and/or supplement for teacher leaders
- 2) To cover the salary and benefit costs for positions hired to replace teachers, the district has released
- 3) Substitute teacher costs if, for example, a teacher leader is released to observe, be part of a team meeting, or attend professional development.
- 4) Costs associated with professional development for teacher leaders
- 5) “Other costs” such as books, resources, and technology requests

There are three models districts may choose from in order to participate in the Teacher Leadership and Compensation System: teacher career paths, leadership roles and compensation system, instructional coach model, or a comparable plan model.

The Iowa Mentorship and Induction program and Teacher Leadership and Compensation are not the only legislation addressing Iowa’s educators. To address education gaps, Iowa has established many teacher quality strategies. In 1974, Iowa established its first Area Education Agency system aimed at providing consistent education quality across the state, aiding in professional development, curriculum creation, special education support, and educational services. (Area Education Agencies, 2025). To help the state aim for high-quality education and teachers, they started the Iowa Model Educator Evaluation system (“Teacher Quality”, 2025).

This is an ongoing process that involves gathering evidence related to the state’s standards and collaborating with peers to improve the quality of education.

In 2014, the State introduced the Teach Iowa Scholars Program. This program was aimed at providing additional compensation to teachers for teaching in Iowa schools designated as shortage areas (Teach Iowa Scholar, 2025). The above-mentioned programs are examples of big steps the state has taken to improve teacher quality, quantity, and support since the 1970s. In addition to these programs, the State has taken smaller measures: increasing teacher pay (Fiscal Note, 2024), expanding its loan forgiveness programs (Loan Repayment Program, 2025), and strengthening district guidelines (Teacher Quality, 2025). While these measures are helpful for drawing more individuals to the field of education, they are not focused on keeping teachers in the state.

The Mentoring and Induction Program outlines its specific goals, which this report will use to determine the program's effectiveness. These goals, as stated by the Iowa Department of Education (2003), “A Beginning Teacher Mentoring and Induction Program is designed to promote excellence in teaching, enhanced student achievement, foster a supportive environment within school districts and area education agencies, increase the retention of promising beginning teachers, and promotes the personal and professional well-being of teachers” (pg. 6). This report has gathered three criteria from this excerpt upon which this report bases the effectiveness of Iowa’s Mentoring and Induction plan: student achievement, teacher well being, and the retention of promising beginning teachers.

History of Student Achievement

Student achievement is the academic performance and progress students make, often measured by assessments and grades. For the purposes of this examination, this report will define student achievement using NAEP scores. The national public scores for grade four in 2024, based on NAEP assessment, are as follows: 237 in mathematics and 214 in reading (“*National Data Explorer*,” 2024). An examination of the previous student achievement data in Iowa reveals how the state’s educational policy and instructional practices have changed academic outcomes over time. In 2000-2002, a few years after the first national assessments were mandated, Iowa tested significantly higher than the national average in fourth-grade reading and math. Iowa tested with an average grade four mathematics score of 233, 7 points higher than the

national average (“*National Data Explorer*,” 2002). During this period, Iowa ranked ninth in education and well above our midwestern neighbors. At the time this plan was instilled, Iowa was well ahead of 82% of the United States. Although Iowa was once a national leader, recent trends show a noticeable shift in the level of performance, as will be discussed further in this report.

History of Teacher Well-being

An additional criterion the Iowa Mentoring and Induction Program aims to address is fostering a supportive environment within school districts (area education agencies) and promoting the personal and professional well-being of educators. In the state of Iowa, K-12 teachers experience high levels of stress and burnout due to factors such as overwhelming workloads, perceived disrespect, insufficient administrative support, and many other significant factors. The M&I was implemented under *Iowa Code 284.5* as a part of the *Teacher Quality Program* to address this concern, along with many others, to reverse the decline of educators in Iowa and the decline of graduates relocating to Iowa to pursue a career in K-12 teaching, which is thoroughly broken down within the vision statement. “A beginning teacher mentoring and induction program is created to promote excellence in teaching, enhance student achievement, build a supportive environment within school districts and area education agencies, increase the retention of promising beginning teachers, and promote the personal and professional well-being of teachers.” (“*Iowa Department of Education*”, 2024) The well-being of teachers directly affects their performance and the quality of education for their students. While high stress and burnout rates are serious problems, especially in the wake of the pandemic, high teacher well-being is essential for successful teaching and better student results. We can see this shift over recent decades due to a variety of factors involving concerns about teacher stress, workload, and low salaries. The 2020 COVID-19 pandemic significantly worsened existing well-being issues and increased demands from educators never seen before, leading to an increase in teachers considering leaving the profession entirely. Other initiatives established to aid and prioritize teacher quality were the Scanlan Center for School Mental Health, which will be further explored during the duration of this analysis. It is also important to note that teacher quality and well-being are synonymous terms used interchangeably throughout this analysis. In short,

without the prioritization of teacher quality, the profession loses its ability to function, which in result explains the stagnant trend of K-12 educators within the state of Iowa.

History of Retention and Attraction

Tracking teacher shortage data in Iowa is a difficult task. A significant lack of data, gaps in shortage collection efforts year-by-year, and disparities in collection across the state make painting a picture of trends in teacher vacancies a near-impossible task. The state did not start collecting comprehensive data on its teacher shortages until the 2024-25 school year. The U.S. *The Department of Education Teacher Shortage Area Report* first began to report teacher shortages in the state in 1990. During the 1990-91 school year, the Department estimated 26 areas in Iowa were experiencing a teacher shortage. This number remained stagnant during the 1995-96 school year, which reported another 26 shortage areas. From 1996-97, the States experienced a jump in teacher vacancies with 83 reported shortage areas. During the 2000-01 school year, the state saw another increase in shortage areas, 134. Those numbers increased again during the 2005-06 year to 149. Over the next five years, the number of reported teacher shortage areas decreased, leveling off around 2010-11 with 99 reported areas. These numbers remained level through the 2015-16 year, reporting 97 shortage areas. In 2019-20, the State saw a significant increase in teacher shortage areas, reporting 138 areas. This number has yet to drop, and during the 2025-26 school year, the DOE reported 292 vacancy areas in the state of Iowa (Teacher Shortage Areas, 2025). Since 1990, Iowa has experienced a consistent increase in teacher shortage areas across the state. Within the last decades, these areas have generally stayed above 100 reported areas, and in recent years, above 200 reported areas (Teacher Shortage Areas, 2025; Conditions of Education, 2024).

Overall, the available data, though inconsistent and incomplete, shows a long-term pattern: Iowa has faced a growing teacher shortage for more than three decades. This trend suggests that what were once isolated or subject-specific vacancies have evolved into a widespread, systemic shortage across the state. The steady rise, paired with major jumps in recent years, indicates that Iowa's educator workforce challenges are not temporary fluctuations but a persistent issue. Federal reporting makes clear that shortages have expanded in both scale and frequency over time, underscoring the need for comprehensive, coordinated state-level responses.

Legislative History

In 2001, Iowa allocated state funding for a multitude of programs centered around improving education, titled the Teacher Quality legislation. This program worked to create teacher mentors for incoming teachers in an attempt to improve teacher retention, student achievement, and teacher well-being. The program was officially introduced in 2002, but the first cohort of schools did not join until 2014. In 2017, the legislation was amended to include the Teacher Leadership and Compensation program, the center of our analysis (Teacher Quality, 2025).

The Conditions of Education reports produced by the Iowa Department of Education began collecting data on beginning-year teachers. The States Conditions of Education Report did not begin reporting data on beginning teacher attraction rates until 1999. In the 3rd edition of the report, covering the 1995-96, 1996-97, 1998-99, and 1999-2000 school years (Conditions of Education, 2000). Since then, the Condition of Education Report has always included beginning teacher data.

In 2014, the Teacher Leadership and Compensation (TLC) program was added as another programming option under the Mentoring and Induction program. The TLC produced its first End-of-Year Report Summary at the end of the 2014-15 school year. The report tracks data concerning the three goals of the program, notably, teacher retention and attraction. Since 2014, the Iowa Department of Education has produced an End-of-Year Report Summary every school year, including data collected about teacher retention and attraction rates for schools included in the program. In 2021, at the conclusion of the 2020-21 school year, the Department stopped publishing these reports (Teacher Leadership and Compensation, 2025).

Criteria Status Quo

Student Achievement

In more recent years, Iowa has fallen from its reported 1990s score in multiple areas, including student proficiency in both reading and math, a slight fall in on-time high school graduation rates, and a rise in chronic absenteeism. According to The Nation's Report Card, Iowa's fourth-grade reading and mathematics scores were essentially at the national average,

meaning they were not statistically different from the scores of other states (“National Data Explorer,” 2024).

Findings

While performing at this average level indicates that Iowa’s students are keeping pace with national trends, the state lags behind many of its surrounding states, such as Ohio, Minnesota, Indiana, North Dakota, and South Dakota, which achieved higher scores. In 2002, Iowa used to rank 9th in NAEP proficiency amongst the other 50 states (“National Data Explorer,” 2002). Today, however, the data show a clear reversal of our goals. What was once a point of pride for the state has become an area of growing concern as Iowa faces a sharp decline in student achievement.

Table 1 outlines the steady decline in Iowa’s proficiency as according to the National Assessment of Education Progress, with 2024 being Iowa’s lowest-scoring year, with an 18% drop in understanding basic state standards, much less proficiency since 1992. A staggering 32% of students are below NAEP basic standards, a large gap from 27% in the early 1990s. Almost one-third of Iowa’s students are below basic education standards. A total of 23 states that outperformed Iowa in fourth-grade reading, mathematics, or both (“National Data Explorer,” 2024). This ranking suggests that although Iowa students are not falling behind the national benchmark, they are being outpaced by a significant number of similar states.

In 2014, only 150 of Iowa’s 328 school districts were participating in the Teacher Leadership and Compensation program, but 60% of these districts reported “student achievement goals mostly or fully met” (“End-of-Year Report Summary 2014-15,” 2015). Two years later, in 2016, once every district began participating, only 56% reported their student achievement goals were mostly or fully met (“End-of-Year Report Summary 2016-17,”

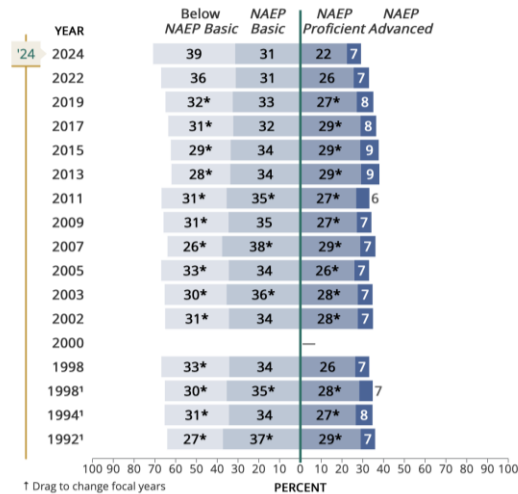


Table 1.1. Student achievement scores declining 1992 - 2024 (“National Data explorer,” 2024).

2017). Finally, in the last required report on the effectiveness of TLC, this report sees another decline with only 50% of districts reporting student achievement goals mostly or fully met (“End-of-Year Report Summary 2020-21,” 2021). These declines suggest that while the program provided a structured framework for teacher leadership, statewide implementation alone was not sufficient to ensure constituent improvement in student outcomes. The pattern highlights the complexity of linking teacher-focused initiatives directly to student performance and underscores the need for ongoing evaluation and support to promote program effectiveness.

Each year, Iowa releases a statewide end-of-year report summary on the Teacher Leadership and Compensation System. These reports include student academic performance and assessment data, district-level plans and interview reports by districts, financial allocations, and data on outcomes or measures of effectiveness. The data for these reports, however, is very limited. Districts were only asked to start reporting this information in 2014, when the TLC program first began, but in 2022, school districts were no longer asked to complete an End-of-Year Report to be submitted to the Department of Education (“Teacher Leadership & Compensation,” 2025). With little data post-COVID, it is hard to determine if student achievement is really at an all-time low, or if the data that should have been collected would have shown improvement.

However, the Iowa Department of Education contracted The American Institutes for Research (AIR) to evaluate TLC. AIR is a nonprofit organization that conducts behavioral and social science research (Citkowicz et al., 23). AIR examined TLC’s impact on student achievement in the first three years of implementation based on an interrupted time series design. This design used the pre-TLC performance of all students to predict post-TLC student achievement outcomes

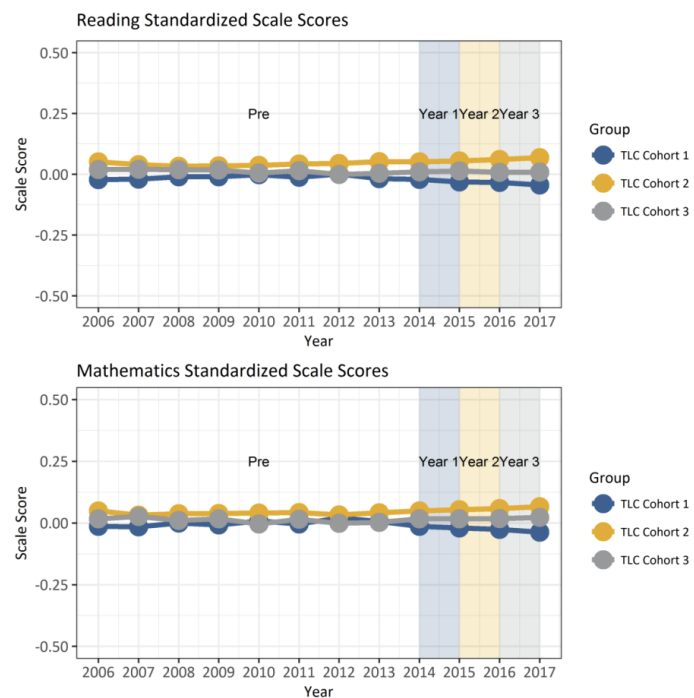


Table 1.2. Student achievement rates during years of implementation (Citkowicz et al., 23)

(Citkowicz et al., 23). The analyses used Iowa Assessment scores in reading and mathematics from 2005 to 2017. TLC was implemented in three successive cohorts; therefore, this design had multiple baseline or pre-TLC periods that allowed AIR to examine the effects of TLC across the three years of implementation.

In the first year of implementation (2014-15 for Cohort 1, 2015-16 for Cohort 2, and 2016-17 for Cohort 3) remained unchanged compared with the pre-TLC years (Citkowicz et al., 23). Historically, TLC Cohort 1 districts performed below the state averages in reading and math, Cohort 2 performed marginally above, and Cohort 3 performed at the state average (Citkowicz et al., 23). In the first year of implementation, Cohort 1 student achievement went slightly below their average in both reading and math. Cohort 2 performed slightly above their pre-TLV average, and Cohort 3 districts remained unchanged (Citkowicz et al., 23). In the second year of implementation, overall student achievement continued to remain unchanged. Lastly, in year three of implementation, they continued demonstrating a similar pattern (Citkowicz et al., 23).

The American Institute for Research concluded that the Teacher Leadership and Compensation has made virtually no impact, positive or negative, on student achievement in Iowa. Overall, AIR's evaluation of Iowa's Teacher Leadership and Compensation (TLC) system indicates that the initiative did not produce measurable changes in student achievement during its first three years of implementation. Despite the staggered rollout across three cohorts—each with differing levels of performance before TLC—student outcomes in reading and mathematics remained largely consistent with pre-TLC trends. Minor fluctuations within individual cohorts did occur, such as Cohort 1's slight decline and Cohort 2's modest gain during the first year, but these shifts were neither sustained nor substantial. By the end of the third year, all cohorts continued to mirror their historical performance patterns. These findings suggest that while TLC brought structural changes to Iowa's education system, its early impact on student achievement was limited, highlighting the need for continued study to understand the conditions under which teacher leadership initiatives most effectively influence student outcomes.

Summary

In recent years, Iowa's K-12 educational performance has experienced significant declines across multiple indicators. Once a national leader, Iowa no longer maintains its historic

standing in student achievement. According to the Nation’s Report Card, Iowa’s fourth-grade reading and mathematics scores in 2024 were statistically indistinguishable from national averages but fell below many neighboring states. Iowa previously ranked ninth in NAEP proficiency in 2002, but current data show a notable reversal, with the state now outperformed by 23 other states in the subjects listed above.

Long-term NAEP trends reinforce this downward trajectory. Table 1 shows that 2024 represents Iowa’s lowest-scoring year since the state began participating in NAEP, with an 18% drop in students meeting basic state standards since 1992. Currently, 32% of Iowa students perform below the NAEP Basic level—up from 27% in the early 1990s—meaning nearly one-third of students fail to demonstrate even foundational grade-level understanding.

Other statewide indicators reveal similar concerns. Iowa’s on-time high school graduation rate has slipped, and chronic absenteeism has increased. Student proficiency levels in both reading and math continue to fall, further widening achievement gaps. The Teacher Leadership and Compensation (TLC) system, established to improve instruction through distributed teacher leadership, also shows mixed results over time. In 2014, when only 150 of Iowa’s 328 school districts participated, 60% reported student achievement goals “mostly or fully met.” But achievement results declined as statewide implementation expanded: 56% in 2016 and just 50% in 2021. These results suggest that while TLC offered structural support for teacher leadership, district participation alone did not consistently translate into improved student outcomes.

Compounding these issues is a lack of recent statewide data. Iowa discontinued its required TLC End-of-Year Report after 2021, leaving an information gap during and after the COVID-19 pandemic. Without current post-pandemic reporting, it is difficult to determine whether Iowa’s recent declines represent a new long-term trajectory or whether missing data obscure areas of improvement. Overall, Iowa’s current educational status quo is defined by declining proficiency, widening gaps in basic academic skills, mixed outcomes from statewide reforms, and a growing lack of post-pandemic data to inform understanding and policy response.

Teacher Well-being

The state of teacher well-being in Iowa is still uneven today. On the one hand, optimism and slight increases in teacher recruitment have resulted from the state's investment in teacher

pipeline development and structured mentoring. However, persistent issues with workload, mental health, and professional discontent continue to make it difficult for many districts to retain teachers. The current state of affairs is marked by advancements in the application of policies, but a sluggish development in the actual experiences of teachers.

Findings

Although the M&I has contributed to the creation of more encouraging conditions for new teachers, more extensive structural changes are still required to significantly improve the day-to-day experiences of Iowa's educators. According to the Scanlan Center for School Mental Health, "Conversely, systems-level interventions involve applying a universal program or intervention across the school (or staff); this could include a focus on school practices that may contribute to a positive school climate or changing work-related routines or policies intended to promote well-being (e.g., open office hours, time restrictions on email communication amongst school staff)." (Embse, 2025) With this in mind, it is clear to uncover the intent behind the establishment of this program, which is referenced around the well-being of educators through administrative reform.

Although there are areas of growth in Iowa's teacher employment, burnout is still a major problem, according to recent statewide surveys. The Iowa Department of Education reports that the instructor pipeline is starting to increase faster than student enrollment, indicating some initial success. "Iowa's investment in a strong teacher pipeline is having a positive impact across the state, with growth in the educator workforce significantly outpacing student enrollment," stated Jay Pennington, administrator for the Division of Teacher Quality and Innovation. But despite this expansion, a lot of educators still voice worries about feeling underappreciated, underpaid, and unsupported. The M&I attempts to address the fact that early-career instructors are more likely to quit their jobs within the first five years of their careers, as data regularly demonstrates.

The M&I has a number of drawbacks despite its objectives and goal achievements. First, there are disparities in experiences around the state due to district-specific differences in mentorship quality. Some districts don't have the staff or resources necessary to carry out the program successfully. Second, structural problems that significantly affect well-being, such as huge class sizes, student behavioral concerns, or inadequate compensation, cannot be resolved by

policy wording alone. Third, the program does not usually address deeper cultural concerns like respect for teachers or the deprofessionalization of teaching, even when it provides institutional support. Lastly, although older teachers also experience burnout, the M&I's influence is mainly concentrated on early-career instructors, leaving them with less formal support. Although these

MULTIPLE CHOICE

10. Have you considered leaving the field of education?

Answer Choice	0%	100%	Number of Responses	Responses Ratio
Yes			386	75%
No			93	18%
N/A			29	5%
Total Responses			508	100%

Table 2.1. Survey responses regarding leaving the field of education (*Professional Educators of Iowa*).

limitations are apparent and crucial within the profession, it is necessary to address the main issue, which is the lack of data collection regarding the struggles of K-12 teachers in Iowa. Post-pandemic, data collection came to a halt due to unforeseen circumstances and hasn't been resumed since, as mentioned within this analysis. With that in mind, moving cautiously about data collection is crucial to determine a consistent status quo and trend regarding the well-being of educators in today's climate. It was later discovered that this criterion commonly falls victim to subjectivity because its primary data collection method is surveys. Although its objective purpose is limited, it does not necessarily affect its validity. Proper data can still be drawn from these surveys, for example, according to Table 2.1, the *Professional Educators of Iowa* conducted a survey that revealed concern regarding the future of teaching staff. 75% of educators have considered leaving the profession due to a multitude of reasons. It is necessary to understand that this survey is closely related to teacher quality (well-being) and demonstrates a sort of cause-and-effect relationship between the two variables. "Nearly 400 said they are frustrated by the stress the workload brings, lack of communication from administration, and what PEI is calling a 'lack of respect for the position,'" said Professional Educators of Iowa Executive Director Terry Gladfelter. This statistic is reviewed as a negative baseline by the PEI.

MULTIPLE CHOICE

15. Have you personally experienced or witnessed violence in your school this year?

Answer Choice	0%	100%	Number of Responses	Responses Ratio
Yes			168	33%
No			310	61%
N/A			30	5%
Total Responses			508	100%

Table 2.2. Survey responses regarding witnessed violence in schools (*Professional Educators of Iowa*).

According to local news outlet KCRG-TV, Iowa teachers report an active appearance of stress and a lack of administrative support in recent surveys. It is also apparent that violence in educational settings is another huge marker of whether or not it affects the well-being of educators. Table 2.2 demonstrates a high number of Iowa K-12 teachers experiencing or witnessing violence in their schools. Although it is not as drastic as the first survey, it still represents a high trend of educators feeling unsafe, which in turn decreases teacher quality. “One former eastern Iowan teacher - who asked to remain anonymous - said a student once threatened to quote “put ten bullets in her.” She says that the student was suspended for a day and a half.” (Randall, 2025) Iowa teachers have consistently stated that the environment implemented in a classroom is heavily reliant on numerous factors, but if their well-being and safety are threatened, then it makes the profession extremely hard to pursue. These findings have demonstrated a common trend in K-12 buildings and what it is truly like to pursue a profession of teaching within the state of Iowa.

Summary

All things considered, the PEI's designation of this statistic as a negative baseline emphasizes the gravity of the problem and provides a distinct beginning point from which change must take place. The essay presents these findings as a diagnostic tool that highlights systemic flaws and unmet needs within the existing framework, rather than seeing the data as an endpoint. By recognizing the fact in this way, PEI communicates that deliberate, data-driven action is required and that preserving the status quo is insufficient. Additionally, a proactive response provided by the Iowa State Education Association (ISEA) through the Teaching and

Learning Committee has allocated resources for members and educators regarding mental well-being.

The choice to give lawmakers access to the poll results supports the article's focus on reform and accountability. The statistics can immediately influence policy deliberations and legislative agendas during the 2026 session in January, when these findings are presented to lawmakers. This strategy reflects the idea that significant change cannot be achieved by short-term or superficial fixes, but rather must be grounded in empirical data and refined through the legislative process. In the end, the results function as a critique of current circumstances as well as a guide for future action, establishing legislative reform as an essential tool for resolving the fundamental problems and gradually enhancing results.

The data on burnout, mental health strain, and professional dissatisfaction reveals that TLC alone is insufficient to transform the day-to-day experiences of educators. Much like the M&I program, TLC's effectiveness is uneven because its implementation is district-dependent. Some districts have robust coaching systems and fully staffed leadership roles; others lack the resources or personnel to make the program function as intended. As a result, educators' experiences with TLC supports vary dramatically across the state.

More importantly, TLC was never designed to solve the largest structural challenges cited in recent surveys—growing workloads, behavioral issues, insufficient pay relative to expectations, and diminishing respect for the profession. Teacher leaders can support instruction, but they cannot reduce class sizes, rewrite policies, or address systemic problems such as rising school violence and inconsistent administrative communication. Consequently, TLC has improved instructional capacity but has not meaningfully shifted the conditions that most affect teacher well-being.

Teacher Retention and Attraction

Teacher retention and attraction trends are subject to a multitude of influences outside of the Teacher Learning and Compensation program. In the 23 years since the initiation of the Mentoring and Induction program, and 10 years since the Teacher Leadership and Compensation program, the state has engaged in a plethora of additional strategies to retain and attract educators in the state (Teacher Quality, 2025). Furthermore, national and international influences can affect data in direct and indirect ways. Political, economic, and health upturns and downturns

affect these data points in ways the State is unable to control. With these limitations in mind, This report collects our data from the Teacher Learning and Compensation program End-of-Year Report Summaries (Teacher Leadership and Compensation, 2025), Iowa’s Condition of Education Annual Reports (COE)(Conditions of Education, 2025), and the American Institutes for Research’s (AIR) Iowa’s Teacher Leadership and Compensation Program: Findings from 2016-17 review of the TLC program published in 2017 (Citkowicz, 2017).

When analyzing the TLC program's goal of “Attract[ing] able and promising new teachers by offering competitive starting salaries as well as providing short-term and long-term professional development and leadership opportunities, and to “Retain effective teachers by providing enhanced career opportunities” (Teacher Leadership & Compensation, 2025), findings suggest that these efforts have not been largely effective. In regard to both goals, research suggests attraction and retention rates remain stagnant across cohorts, grade levels, and school districts. This conclusion is supported by independent research conducted for this review and prior reviews of the TLC program.

The American Institutes for Research (AIR) study found teacher retention and attraction trends remain stable before and after the implementation of the TLC program across all metrics (Citkowicz et al., 23). On average, individual schools retained 86% of their teachers from 2006-2017. School Districts retained 90% of their teachers during the same time frame. The authors noted a similar pattern among teachers when grouped by experience, grade level, and across all

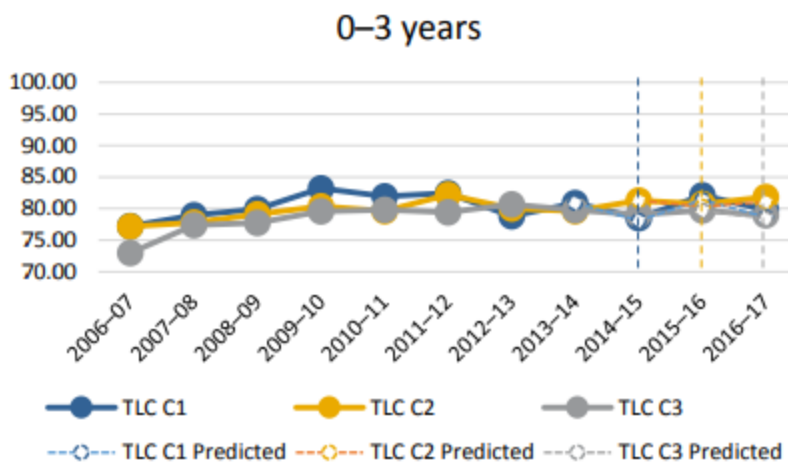


Table 3.1. Percentage of Teachers Retained at the School Level in a School Staff Position by Years of Teaching Experience and Year (Citkowicz et al., 91)

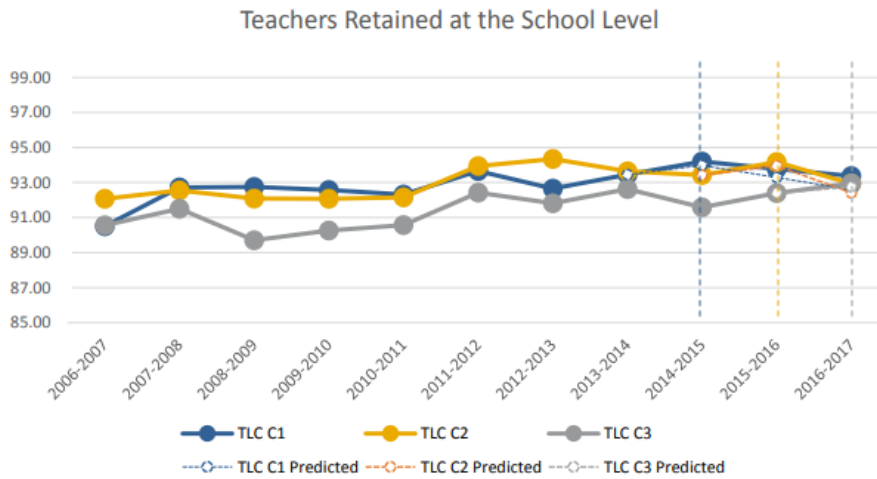


Table 3.2. Percentage, of Teachers Retained in a School Staff Position by School Year and TLC Cohort at School Level (Citkowicz et al., 24)

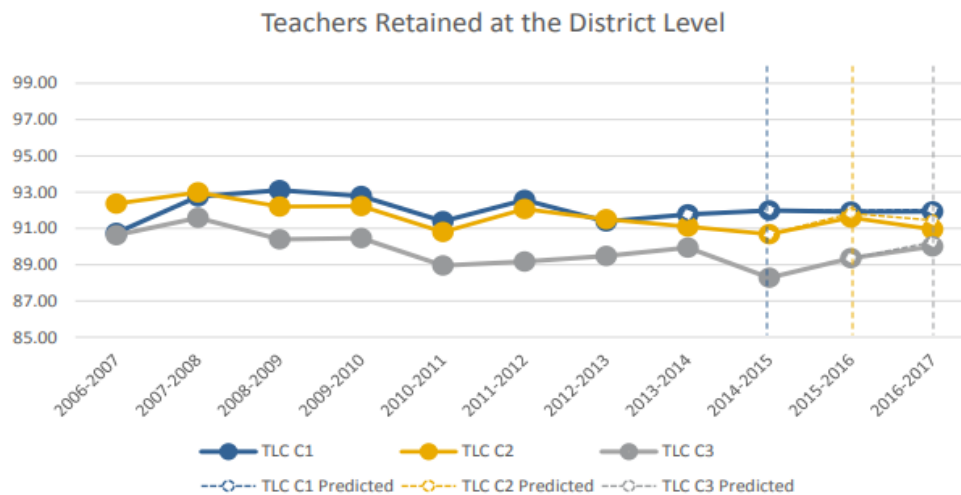


Table 3.3. Percentage, of Teachers Retained in a School Staff Position by School Year and TLC Cohort at District Level (Citkowicz et al., 24)

cohorts. Teachers with less experience, they find, were retained at a slightly lower rate (Table 1) than teachers with more experience.

The AIR review of the TLC program highlights its insignificant effect on teacher retention and attraction trends. These results support the findings of this paper, reflecting the results of the analysis below. Unlike AIR, which conducts its own study, this report relies on data published by the State of Iowa to compare trends. Trends revealed by the TLC End-of-Year Summary Reports and the Conditions of Education Reports reflect the findings of the AIR study.

The Conditions of Education report reports beginning teacher qualities and numbers, giving us a stable foundation to compare trends across time for teacher attraction rates; these findings are outlined before and in Table 3.4 and Table 3.5 below. The first year the Mentoring

and Induction plan was administered, in 2002, 1,104 new beginning teachers were hired across the state. They made up 3.3% of all full-time public school teachers in Iowa. In 2005, 1,442 beginning teachers entered the workforce, making up 4.2% of total public school teachers, a 30% increase from 2001 (Conditions of Education, 2001). In 2010, the state reported 1,131 beginning teachers, 3.3% of total teachers, and a 21% decrease from the prior 5 years (Condition of Education, 2010). In 2014, the state rolled out its first cohort of 33 schools to officially participate in the TLC program. That year, 1,711 beginning teachers were reported, making up 4.9% of total teachers (Conditions of Education, 2014). In 2016, one year before the state amendment, the M%I program to introduce the Teacher leadership and Compensation program as a second option, Iowa reported 1,419 new teachers, contributing 3.9% of the workforce, and representing a 25% increase from 2010 (Conditions of Education, 2016). In 2017, the state created a second option under the Mentoring and Induction program, the Teacher Leadership and Compensation program. Additionally, every school district registered a plan with the TLC program. That year, the state saw 1,549 new teachers, providing 4.2% of total teachers (Conditions of Education, 2017). In 2020, the same year the DOE published its last TLC End-of-Year report, 1,507 new teachers, making up 2.4% of the total teacher workforce; these low numbers are likely due to the COVID-19 pandemic (Conditions of Education, 2020). The most recent Conditions of Education Report was published in 2024 and covered data during the 2023-24 school year. The report notes 1,582 new teachers, contributing to 4.2% of the workforce, and represented a 4.9% increase from 2020 (Conditions of Education 2024). The 2025 COE has yet to be published.

To analyze the success of the TLC program, this report also looks at both the qualitative and quantitative data published in the Iowa DOE’s TLC End-of-Year reports. When these reports

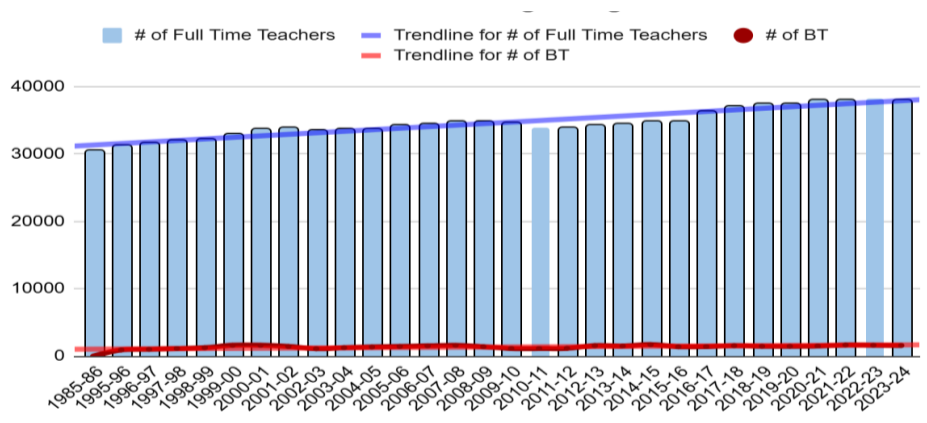


Table 3.4. Number of Full-Time Public School Beginning Teacher (TLC Data Set, 2025)

were still being published, the state collected survey data on schools participating in the TLC. The state asked each participating school district whether they fully, mostly, somewhat, or not at all met their goals of attracting and retaining new teachers. Their results are outlined in the summary below as well as in Table 3. It is important to note that a varied number of school districts participated in the program from 2014-16. The 2017-18 school year was the first year every school district in the state participated in the program.

In 2014, the first official year of the program, 23% of participating schools reported fully meeting their retention and attraction goals, 71% reported mostly meeting them, 6% somewhat, and no schools not meeting them (End-of-Year Report, 2014). In 2017, the same year the State amended its TLC guidelines, only 31% reported fully meeting their goals, compared to 54% mostly meeting them, 14% somewhat meeting them, and 1% not at all. This shows an 8% increase in the number of schools fully meeting their retention goals, a 17% decrease in the number of schools that mostly met them, an 8% decrease in schools that somewhat met them, and a 1% increase in schools that did not meet them (End-of-Year Report, 2017). In 2021, the last year of the reports, 41% of schools fully met their goals, 40% mostly met them, 17% somewhat met them, and 2% did not meet them. These results highlight a 10% increase in the number of schools that reported fully meeting their retention and attraction goals from 2017-2021 and a 22% increase from 2014-2021. Additionally, the state saw a 29% increase in the number of schools reported to have somewhat met their goals from 2014 to 2021 and a 4% increase compared to 2017. Overall, in no year does the state surpass a 50% success mark of fully meeting its goals (End-of-Year Report, 2021). Between 2014 and 2021, the program boasted an average of 37% of schools reporting to have fully met their goals, 52% reporting to have mostly met them, 10% to have somewhat met them, and 1% to have not met them at all.

Percentage of School Meeting Goal 2 & 3

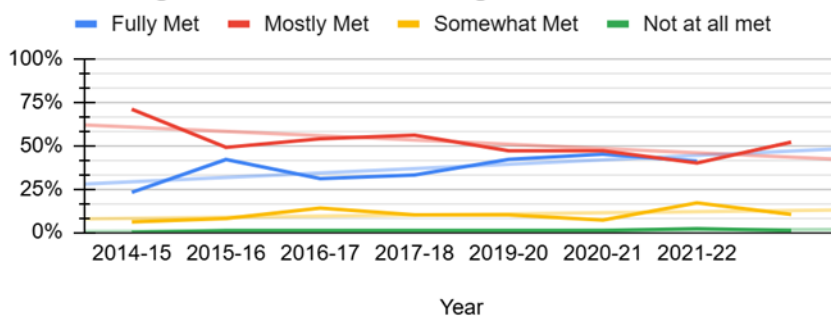


Table 3.5.
Percentage of TLC
School Reporting
Goal Success (TLC
Data Set, 2025)

Summary

This report concluded, after a thorough review of all materials, that the TLC program did not have a significant effect on participating schools' retention or attraction rates. This report's analysis reveals that beginning teachers as a percentage of overall teachers did not significantly improve between 2014, when the program was initiated, and 2025. While beginning teachers and leader teachers reported positive views of the TLC program, numerical trends do not indicate that the program increased teacher retention or attraction rates. These results are mirrored by the findings of the American Institute of Research in their 2017 review of the program. Furthermore, these results match the AIR predictions for future implementation years. At its current condition, the TLC program is not meeting its goals of improving teacher retention and attraction.

Assessment of Alternatives

Recommendation One: Implementing a Student-Centered Mentoring Program

While Iowa's Mentorship and Induction plan offers some flexibility to its schools, there may be too much room for interpretation. Currently, schools are given two options for mentoring their beginning teachers: 1) Create their own using the M&I template, or 2) Use a TLC format consisting of a model teacher, instructional coach, and curriculum and professional development leader positions. Our first recommendation would be to implement a statewide student-centered mentoring program. Student-centered coaching is an evidence-based instructional coaching model that shifts from "fixing" teachers to working with them to design instruction that targets improving student outcomes. By taking a data-driven approach, it increases the learning and efficacy of teachers, coaches, and Iowa's students ("Collaborative Learning", 2025).

A student-centered coaching model where teacher leaders and beginning teachers would collaborate, using student data and work to set specific learning goals, then design and implement lessons to directly improve student outcomes. The primary goal is improving student achievement, not solely teacher practice, by centering mentorship on clear students' learning targets. Teacher leaders and beginning teachers analyze student work (exams, writing, grades, etc.) to identify needs and measure progress. Teacher leaders partner with beginning teachers, co-planning and co-teaching, rather than directing or fixing. In-depth, short-term (4-6 week) cycles focus on a specific student goal, involving planning, in-class coaching, and reflection.

These cycles will follow the same pattern: the coach and teacher identify specific, measurable goals for student learning using student data, collaboratively plan lessons designed to meet those student goals, co-teaching (modeling, co-planning, or co-supporting), and reviewing student data to assess effectiveness and plan the next steps.

There are seven core practices for a successful student-centered coaching cycle: 1) utilize coaching cycles, 2) set standards-based goals, 3) unpack the goal into a learning target, 3) co-plan with student evidence, 5) co-teach using effective instructional practices, a 6) measure the impact on student and teacher learning, and 7) partner with the school leader.

The implementation of student-centered coaching occurs in three stages: prelaunch, launch, and implement, monitor, and adjust (Sweeney, n.d.). Throughout implementation, benchmarks are used to assess whether targets have been met in each stage. The duration of each stage is based on the needs of the district or organization. Prelaunch involves the district, principal, and the coaches. Districts will build stakeholders' knowledge of the purpose and practices, the principal studies the purpose and practices for student-centered coaching, so they may lead the effort with clarity of purpose, and coaches (teacher leaders) will study the practices while building trusting relationships with teachers.

Launch will likely last four to six weeks. In this stage, the district will provide professional learning to the coaching team and work with school leaders to implement (Sweeney, n.d.). The principal will align coaching with the school improvement plan, introduce these practices to the faculty, clarifying what coaching is and is not, and addressing questions or concerns. Lastly, coaches partner with the principal to launch coaching cycles and develop systems for collecting evidence of impact.

The last stage of this program is ongoing and includes the implementation, monitoring, and adjustment. The district collects district-level data to monitor the impact of the coaching program (Sweeney, n.d.). Continues to provide professional learning to the coaching team and principals. The principal will meet with the coach on a weekly basis and continue to monitor the impact of coaching in relation to the school improvement plan (Sweeney, n.d.). The coach will continue to implement coaching cycles and collect evidence of impact, and collaborate with the principal to maintain focus and continue to develop coaching skills (Sweeney, n.d.).

According to Diane Sweeney Consulting, the student-centered coaching model results in measurable growth across three domains: student outcomes, teacher effectiveness, and coaching

success (Sweeney, n.d.i). The student-centered coaching model starts with standards-based learning goals; therefore, educators can measure the impact of coaching on student proficiency through pre- and post-assessments. This data was collected by KickUp, an independent K12 evaluation firm, for 87 coaches working with teachers from various content areas in years 2-3 of implementing student-centered practices. Over 66% of students saw improvement by the end of a coaching cycle (Sweeney, n.d.i). The student-centered coaching practice focuses on student outcomes rather than teacher practice, so teachers feel safe to take risks and try new strategies. The student-centered coaching model is proven to increase teachers' use of best practices in various aspects of classroom life (Sweeney, n.d.i). Student-centered mentoring not only increases student achievement, but it also gives beginning teachers the tools to set them up for future successful teaching practices.

In 2019, researcher Amanda Becker posed the question: "Does engaging with an instructional coach in a student-centered coaching cycle increase a middle school teacher's self-efficacy?" (Becker, 2019). Self-efficacy is your belief in your capability to succeed at specific tasks or challenges, influencing your motivation, effort, and persistence, and it's built from past successes, seeing others succeed, encouragement, and managing stress (Becker, 2019). In her research, data show a 64% increase in confidence in implementing instructional strategies to meet the needs of diverse learners after engaging in a coaching cycle with an instructional coach (Becker, 2019). Simpson's (2017) study reported that 90% of participants stated they felt very confident in their abilities after their work with an instructional coach (Becker, 2019).

The evidence overwhelmingly demonstrates that student-centered teaching, and specifically student-centered coaching, significantly strengthens student achievement, enhances teacher well-being, and supports long-term teacher retention. Because the model is anchored in standards-based learning goals, educators can clearly measure growth, and results from KickUp show that more than 66% of students improved by the end of a coaching cycle. This measurable academic progress reflects the power of focusing coaching on student outcomes rather than on teacher compliance or evaluation. By shifting the emphasis away from judging teacher performance and toward collaborative problem-solving, teachers feel safe to innovate, experiment with new strategies, and refine their practice in meaningful ways.

The research also shows that this approach directly contributes to teacher well-being and professional confidence. When teachers engage in student-centered coaching cycles, they not

only improve their instructional practices but also experience substantial growth in self-efficacy. Becker's (2019) findings of a 64% increase in confidence—and Simpson's report that 90% of participants felt highly capable after coaching—illustrate that teachers gain a stronger belief in their ability to meet diverse student needs. This increased self-efficacy is essential for reducing burnout, supporting job satisfaction, and sustaining long-term commitment to the profession.

Ultimately, student-centered coaching creates a reinforcing cycle: teachers feel more supported and confident, students achieve at higher levels, and schools cultivate environments where educators are more likely to remain and thrive. By prioritizing student learning and empowering teachers through collaborative, goal-focused coaching, schools can build a system that elevates outcomes for all stakeholders.

Trade Offs

Alternative #1: Student-centered mentorship models are a great, feasible option for improving student achievement and creating stronger teacher relationships. Cost would not be affected as TLC already implements costs for training teacher leaders and substitutes in their absence for planning. This program would not require additional costs, as this report would only change the training to be more student-centered.

Recommendation option two: Small grant programs

Current TLC guidelines outline six categories of allowable uses for TLC funding. TLC funding may be used to supplement the salary of teachers, leaders (mentors) who are fully or partially released from their classroom duties to serve in their leadership positions. Additionally, districts may use TLC funding to support teachers who work in the classroom full-time and contract for additional hours in their mentor positions (Teacher Leadership & Compensation, 2025). Under this model, school districts are responsible for setting aside a portion of their overall funding allocation if they wish to provide additional compensation for teacher mentors. The state does not currently provide independent small grants or separate funding for teacher leaders. Our recommended program is modeled after the U.S. Department of Education Teacher and School Leader Incentive Program, which offers small program grants through the Teacher Incentive Funds (TIF). The program ran from 2016-2023 and provided 92 awards. It aimed to

promote performance-based compensation for educational staff (Teacher Incentive Program, n.d.i).

This report recommends that Iowa look to this and other programs when considering its grant program. Our suggested program is structured as follows. The state should set aside its overall allocation of TLC funding to establish a small grant program. Upon its initial induction, the program should offer a small number of low-dollar grants. These grants should be available for teacher mentors in the TLC program to apply for to fund their efforts as teacher mentors. Teachers should submit an application outlining their intended usage of the money, demonstrating how the grant will assist them in mentoring. These grants should be applied to the educators who received them through their school district's TLC funding account, in addition to the baseline amount of TLC funding the district is receiving. Individual school districts and teachers are responsible for effectively allocating the additional funding. At the conclusion of the school year, the recipient teacher should be required to outline how they used this funding and why it was helpful. With this additional funding and data collection, the TLC program and the state of Iowa will be better able to forward their goals of advancing teacher quality and quantity.

This grant program is designed with the intent of improving teacher retention, well-being, and student achievement. Qualitative data collected by the TLC End-of-Year reports show that beginning teachers reported positive relationships with mentors having an impact on their overall happiness and desire to continue with the district. Mentees repeatedly reported positive feelings about their relationship with their mentors. One such teacher noted, “My mentor entirely shaped my first year. She made the transition into this year feel seamless. I look forward to continuing to work with and learn from her” (End-of-Year Report, 2019). Testimonial evidence shows that teacher retention might also be positively impacted by more opportunities for teacher mentors to work with young teachers. In their 2019-20 end-of-year report, Baxter school district noted, “This report believes our retention is directly related to our collaboration and trust within each building. Collaboration is happening in multiple ways on multiple levels. K-5 and 6-12 each have a full-time release coach to support and encourage teachers and have an impact on student learning” (End-of-Year Report, 2019).

Trade offs

Recommendation #2: Small-dollar grant programs are a cost-effective supplement to the current TLC system. The suggested program is cost-neutral because this study recommends a reallocation of funding rather than additional funding. The state will be able to add to the program in small phases, selecting a few applicants each cycle to compensate for budgeting or capacity concerns. Through this program, the state will have the latitude to reward teacher leaders excelling beyond their post, ensuring the state's best educators can lead by example in their school districts. This recommendation relies on existing infrastructure within the TLC program to operate and will be of little effort to implement. Recommendation 2 is designed to be as cost and time-effective while rewarding high-quality educators to achieve the goals of the TLC program.

Policy Analysis Matrix: TLC Alternatives

<i>Criteria</i>	<i>Recommendation 1: Student-Based Mentoring</i>	<i>Tradeoffs (Alt. 1)</i>	<i>Recommendation 2: Small Grant Program</i>	<i>Tradeoffs (Alt. 2)</i>
<i>Primary Goal</i>	Directly improve student achievement through instructional coaching correlated to student learning outcomes.	Requires consistency in coaching quality and administrative involvement to be effective statewide.	Through financial incentives, it will promote teacher motivation, classroom resources, and strengthen educator and administration relationships.	Depends on how grants are utilized on a case-by-case basis.
<i>Student Achievement</i>	High potential impact; directly targets student achievement and the ability for measurable growth.	Gains could take time, and implementation fidelity affects outcomes.	Moderate/High Potential; dependent on how the resources are used.	No true assurance that funds will positively reflect instructional improvement.
<i>Teacher Well-Being</i>	High potential impact; collaboration and enthusiastic classroom settings increase self-efficacy and reduce burnout.	Requires time commitment and could potentially increase workload.	Moderate positive impact; recognition and financial incentives could boost overall morale.	Benefits could be unevenly distributed, and potential inequity narratives could result.

Criteria	Recommendation 1: Student-Based Mentoring	Tradeoffs (Alt. 1)	Recommendation 2: Small Grant Program	Tradeoffs (Alt. 2)
Teacher Retention & Attraction	Indirect but meaningful impact due to educators drawing their professional worth from their impact on students.	Could not address appropriate compensation for an increase in responsibility.	Direct impact through incentives and recognition.	It would not address the majority of educators within districts if the funding allocated is small.
Cost	Cost-neutral; reallocates existing TLC training and structures of leadership.	Requires redesign of original training.	Cost-neutral via reallocation of TLC funds, <i>*subject to change if funds increase</i>	Sustainability relies on continued funding
Equity & Access	With a focus on a learning gap through student data, under-performing students will receive additional attention in struggling areas.	Smaller districts may face disparities due to the qualified teacher-to-student ratio.	Allows an opportunity for high-performing teachers to receive additional funding.	Complete disadvantage if a small pool of funding is subject to a competitive nature.
Data & Accountability	High; depends on evidence from coaching cycles and pre/post evaluations.	Requires an intense data collection system.	Moderate; relies on self-reported data and end-of-year/semester reflections.	Inconsistent standardized data across districts.

Student Achievement

The results of student achievement substantially favor the first option is student-centered mentoring. AIR's assessment and Iowa's NAEP trends show that structural changes like TLC yield little improvement when they are not clearly linked to learning objectives. By grounding teacher mentorship in quantifiable student learning objectives and utilizing pre- and post-assessment data to gauge efficacy, student-centered coaching directly closes this gap. Academic gains are more likely to be sustained when coaching emphasizes student evidence rather than teacher compliance, according to numerous studies. Alternative 2: Small Grant Programs, on the other hand, may indirectly boost student achievement by improving the quality of mentorship; nevertheless, results are mostly dependent on the utilization of individual grants and lack regular

instructional alignment. Because of this, improvements in student accomplishment under Alternative 2 are less quantifiable and predictable.

Teacher Well-Being

Student-centered mentoring addresses teacher well-being more thoroughly. Teachers in Iowa report high levels of stress, exhaustion, and a lack of professional support; these issues are made worse by policies that prioritize accountability over genuine partnership. Student-centered coaching promotes professional development, cooperative problem-solving, and psychological safety—all of which have been linked in studies to higher levels of self-efficacy and lower levels of burnout. Research mentioned in your study (e.g., Becker, Simpson) shows that teacher confidence increases significantly during coaching cycles. Small grant programs, while valuable, give episodic support rather than structural change. Grants may increase recognition and morale, but their impact on well-being is probably limited and inconsistent among districts in the absence of structural changes in workload, instructional support, and professional culture.

Retention/Attraction

Although neither option completely addresses Iowa's persistent problems with teacher retention, Option 1 has more promising long-term outcomes. Retention is closely linked to improved teacher self-efficacy and instructional performance, which are important results of student-centered coaching, especially for early-career teachers. Instead of only providing incentives to stay, this strategy addresses the reasons why instructors quit (stress, lack of support, poor confidence). Option 2 may increase mentor teachers' short-term retention by focusing more directly on recruitment and retention through leadership possibilities and financial recognition. AIR's results, however, indicate that compensation-based tactics by themselves do not significantly change statewide retention statistics. Grant programs run the risk of becoming symbolic rather than revolutionary if working conditions and instructional support are not addressed.

Final Recommendation

Data collection

A lack of sufficient or comprehensive data available made reviewing the TLC program difficult. This report recommends that the Iowa Department of Education resume its annual TLC End-of-Year Report Summaries and resume publishing them on its website. Additionally, these reports must continue to provide more direct data around teacher retention and attraction numbers. To accomplish this, this report recommends that the State review its TLC survey questions and ensure schools are being asked to report the number of beginning teachers, their turnover rates, and other relevant retention and attraction information. Furthermore, this report recommends that the State establish more specific guidelines for the testimonial reports of districts. Specifically, the districts highlight how TLC funding contributed to their ability to attract and retain teachers. With the goal of more data collection in mind, the state will be able to better understand the impacts of the TLC program and fine-tune the program as needed.

Supplementary Recommendation

This report recommends that the State of Iowa adopt both recommendations one and two to supplement the TLC program. Alternative one: Student-Based Mentoring will directly improve the quality of education students receive in the state. It is designed to use the skills of teacher leaders and beginning teachers in improving learning experiences and scores amongst students. Alternative two: Small Dollar Grant Programing: will incentivize teacher leaders to be more involved with their beginning teachers. This recommendation is designed to improve teacher well-being and retention by rewarding high-performing educators.

Cost Considerations

A review of Iowa's existing investments in educator quality programs demonstrates that the State has already committed substantial recurring funding to mentoring, induction, and teacher leadership efforts. The *Student Achievement and Teacher Quality Program*, which encompasses the Mentoring and Induction (M&I) component, has grown significantly since its start in FY 2002, rising from \$40 million to nearly \$249 million by FY 2009. Within this appropriation, the M&I program itself has consistently received approximately \$4.2–\$4.65 million annually, with districts allocated \$1,300 per beginning teacher and mentors compensated \$500 per semester. These figures have remained relatively stable despite increases in beginning

teacher participation and persistent statewide concerns about teacher retention and workforce quality.

This historical funding pattern highlights two cost realities relevant to the proposed reforms. First, Iowa already allocates enough resources to support the existing mentoring infrastructure, but these funds are not directly tied to measurable outcomes such as student achievement or improved teacher well-being. Second, the current stipend amounts for mentors, unchanged for many years, are modest relative to the responsibilities required, which may contribute to inconsistent mentor quality and limited participation among high-performing teachers.

The proposed small, cost-neutral grant program for teacher mentors leverages this existing funding base rather than requiring new appropriations. Because the state already distributes a dedicated M&I allocation to all districts, redirecting a small portion of discretionary funds within that appropriation, particularly the flexible components that have historically fluctuated, would allow districts to offer competitive micro-grants without expanding the overall budget. These grants could be awarded based on demonstrated instructional alignment, effective use of student-centered mentoring practices, or contributions to district improvement goals, ensuring that funds incentivize high-quality implementation instead of merely covering baseline participation.

Additionally, shifting to a student-centered mentoring model has minimal direct cost. Iowa already funds coaching, evaluation, and professional development through multiple streams within the Teacher Quality Program, including evaluator training, Teacher Development Academies, and professional development allocations. Aligning these efforts with mentoring activities, rather than creating independent structures, reduces redundancy and uses existing state-funded training systems more efficiently.

Finally, improving statewide data collection requires only marginal expense. The Department of Education already manages annual reporting structures for the Teacher Quality Program; integrating a small number of additional metrics (e.g., mentor effectiveness indicators, teacher well-being benchmarks, student-level outcome connections) would constitute an incremental rather than structural cost increase.

Conclusion

According to this policy analysis, Iowa's Teacher Leadership and Compensation (TLC) system and Mentoring and Induction (M&I) Program have not resulted in significant, long-lasting improvements in the three main criteria that guided this review: student achievement, teacher well-being, and teacher retention and attraction. Over the previous 20 years, student performance has decreased in comparison to peer states, teacher burnout is still high, and retention and attraction rates have essentially stalled despite increased resources and structural improvements. Each year, Iowa is spending approximately \$325.5 million on a program that is not improving our schools, students, or educators. In response, this paper suggests creating a cost-neutral small grant program for teacher mentors, implementing a student-centered mentoring model, and improving statewide data collecting to increase program performance. Small grants encourage excellent mentoring and professional leadership, and student-centered mentoring explicitly connects instructional support to quantifiable student results while boosting teacher self-efficacy and wellbeing. When taken as a whole, these suggestions enhance rather than replace the current M&I and TLC frameworks and provide a more focused, data-driven strategy for raising educational standards in Iowa. Iowa can advance beyond symbolic reform toward measures that significantly improve its teaching workforce and student achievement by placing a high priority on accountability, instructional alignment, and educator support.

BIBLIOGRAPHY

- Becker, Amanda. "Impact of a Coaching Cycle on Teacher Self-Efficacy". May 2019. Northwestern College. https://nwcommons.nwciowa.edu/cgi/viewcontent.cgi?article=1121&context=education_masters. (December 12, 2025)
- Citkowicz, Martyna, Brown-Sims, Melissa, Williams, Ryan, Gerdeman, Dean. "Iowa's Teacher Leadership and Compensation Program: Findings from 2016-17". 2017. American Institute for Research. <https://educate.iowa.gov/pk-12/educator-quality/tlc#reports>. (December 6, 2025)
- Randall, Libbie. 2025. "Iowa Teachers Report Stress, Lack of Support in New Survey." <https://www.kcrg.com>. <https://www.kcrg.com/2025/09/11/iowa-teachers-report-stress-lack-support-new-survey/> (December 16, 2025).
- Sweeney, Diane. "Getting Started with Student-Centered Coaching". (n.d.i). Diane Sweeney Consulting. <https://www.dianesweeney.com/getting-started-with-student-centered-coaching/> (December 11, 2025)
- Sweeney, Diane. "The Impact of Student-Centered Coaching". (n.d.i). Diane Sweeney Consulting. <https://dianesweeney.com/wp-content/uploads/2018/07/The-Impact-of-Student-Centered-Coaching.pdf> (December 11, 2025)
- "284.5 Beginning Teacher Mentoring and Induction Program." 2024. Iowa Code 284.5. <https://www.legis.iowa.gov/docs/code/284.5.pdf> (December 16, 2025).
- "Collaborative Learning." 2025. Cornell University, Center for Teaching Innovation. <https://teaching.cornell.edu/teaching-resources/active-collaborative-learning/collaborative-learning> (December 10, 2025)
- "End-of-Year Report Summary 2014-15". 2015. Iowa Department of Education Teacher Leadership & Compensation. <https://educate.iowa.gov/media/2839/download?inline>. (December 9, 2025).
- "End-of-Year Report Summary 2014-15". 2015. Iowa Department of Education Teacher Leadership & Compensation. <https://educate.iowa.gov/media/2839/download?inline>. (November 7, 2025)
- "End-of-Year Report Summary 2016-17". 2017. Iowa Department of Education Teacher Leadership & Compensation. <https://educate.iowa.gov/media/3900/download?inline>. (November 7, 2025)
- "End-of-Year Report Summary 2017-18". 2018. Iowa Department of Education Teacher Leadership & Compensation. <https://educate.iowa.gov/media/4449/download?inline>. (December 9, 2025).

- “End-of-Year Report Summary 2019-20”. 2020. Iowa Department of Education Teacher Leadership & Compensation. <https://educate.iowa.gov/media/6798/download?inline>. (December 9, 2025).
- “End-of-Year Report Summary 2020-21”. 2021. Iowa Department of Education Teacher Leadership & Compensation. <https://educate.iowa.gov/media/7491/download?inline> (December 9, 2025).
- “Iowa Mentoring and Induction Plan”. 2001. Iowa Department of Education. <https://educate.iowa.gov/media/11663/download?inline> (September 12, 2025)
- “Learn More About Iowa’s Area Education Agencies.” 2025. Iowa Area Education Agencies. <https://iowaaea.org/about/> (December 9, 2025).
- “Loan Repayment & Income Bonus Programs.” 2023. Department of Education. <https://educate.iowa.gov/higher-ed/financial-aid/loan-repayment> (December 10, 2025).
- “National Data Explorer - ETS”. 2025. The Nation’s Report Card. <https://www.nationsreportcard.gov/profiles/stateprofile/ov> (October 5, 2025)
- “Teach Iowa Scholar Program.” 2025a. Department of Education. <https://educate.iowa.gov/higher-ed/financial-aid/loan-repayment/teach-iowa-scholar-program#:~:text=Graduate%20from%20a%20teacher%20preparation,teaching%20licens e%20does%20not%20qualify> (December 9, 2025).
- “Teacher and School Leader Incentive Program.” U.S. Department of Education. <https://www.ed.gov/grants-and-programs/teacher-preparation-grants/teacher-and-school-leader-incentive-program#teacher-incentive-fund> (December 10, 2025).
- “Teacher Leadership & Compensation.” 2025. Department of Education. <https://educate.iowa.gov/pk-12/educator-quality/tlc#reports> (December 10, 2025).
- “Teacher Leadership & Compensation.” 2025. Department of Education. <https://educate.iowa.gov/pk-12/educator-quality/tlc#reports> (December 10, 2025).
- “Teacher Quality.” 2025b. Department of Education. <https://educate.iowa.gov/pk-12/educator-quality/teacher-quality> (December 10, 2025).
- “The Annual Condition of Education Report”. 1998. Iowa Department of Education. <https://educate.iowa.gov/media/1834/download?inline> (November 30, 2025).
- “The Annual Condition of Education Report”. 1999. Iowa Department of Education. <https://educate.iowa.gov/media/1833/download?inline> (November 30, 2025).
- “The Annual Condition of Education Report”. 2000. Iowa Department of Education. <https://educate.iowa.gov/media/1832/download?inline> (November 30, 2025).

- “The Annual Condition of Education Report”. 2002. Iowa Department of Education.
<https://educate.iowa.gov/media/1830/download?inline>. (November 30, 2025).
- “The Annual Condition of Education Report”. 2005. Iowa Department of Education.
<https://educate.iowa.gov/media/1828/download?inline>.(November 30, 2025).
- “The Annual Condition of Education Report”. 2010. Iowa Department of Education.
<https://educate.iowa.gov/media/2582/download?inline>. (November 30, 2025).
- “The Annual Condition of Education Report”. 2016. Iowa Department of Education.
<https://educate.iowa.gov/media/3386/download?inline>. (November 30, 2025).
- “The Annual Condition of Education Report”. 2020 Iowa Department of Education.
<https://educate.iowa.gov/media/6841/download?inline>. (November 30, 2025).
- “The Annual Condition of Education Report”. 2024 Iowa Department of Education.
<https://educate.iowa.gov/media/11169/download?inline>. (November 30, 2025).
- “TLC Data Set: Teacher Attraction and Retention Data Set”. 2025.
https://docs.google.com/spreadsheets/d/1V-PTHALKFN1TpPqD7N_B9mp0NWLGP4FD0JcUUHquBVU/edit?gid=0#gid=0.
(December 4, 2025)
- “U.S Department of Education Teacher Shortage Areas”. 2025. U.S Department of Education.
<https://tsa.ed.gov/#/reports> . (October 5, 2025)
- Von der Embse, Nathaniel. 2025. “Thriving Educators, Thriving Schools: Practices and Policies for Promoting Teacher Well-Being.” Scanlan Center for School Mental Health - The University of Iowa. <https://scsmh.education.uiowa.edu/news/2025/07/thriving-educators-thriving-schools-practices-and-policies-promoting-teacher-well> (December 16, 2025).

Addressing Mental Health Support in K-12 Schools

Rose Bilicki, Maya Kellerman, and Harry Siraj*

Executive Summary

Iowa's K-12 school system is confronting growing youth mental health challenges, with rising rates of depression, anxiety, and suicidal ideation placing pressure on schools and support staff. Persistent shortages of school-based mental health professionals severely limit a school's ability to intervene early and effectively, eventually contributing to staff burnout, growing waitlists for student services, and high turnover rates.

This report evaluates the state of Iowa's existing legislative efforts and further assesses various alternative policy approaches implemented in other states using cost, effectiveness, and feasibility as our evaluation criteria. Based on our analysis, we recommend expanding Medicaid reimbursement for school-based mental health services while simultaneously reducing bureaucratic barriers through simplified and streamlined licensure transfer. We also propose preventative measures such as mandated mental health screening policies. Together, these policies leverage federal funding, expand the pool of qualified professionals, and shift schools toward earlier identification and prevention. Through this report, we hope to offer a cost-effective and feasible strategy to strengthen Iowa's school mental health workforce and improve the overall well-being of young students across the state.

Introduction

Mental health challenges among children and adolescents have emerged as a pressing social and political issue in Iowa. These issues have far-reaching consequences for educational outcomes, workforce readiness, and social relations. Schools play an integral role in identifying and addressing these challenges in their early stages. Yet many states, Iowa included, face significant issues with providing adequate support for students in need. Shortages of qualified school mental health personnel make it difficult for educators and administrators to intervene when a student is struggling. Anxiety, depression, and suicidal ideation are on the rise among Iowa youth, widening the gap between s

**Maya was a contributing author in an earlier version of this report.*

significant strain on educators, support staff, and school systems, causing high burnout and turnover rates.

This report examines the current state of youth mental health in Iowa, evaluates existing legislative efforts to support mental health personnel, and provides well-researched alternative policy options implemented in other states. Using cost, efficiency, and feasibility as evaluation criteria, we will present policy recommendations aimed at addressing staff turnover and burnout rates, ultimately contributing to the overall betterment of youth mental health.

The Problem

Mental health is a core part of wellbeing for all people, but especially for children. The quality of children's and adolescents' mental health affects every facet of their lives as their brains rapidly grow and change (CDC 2025). The effects of poor mental health are detrimental to both the daily life of the person experiencing it and on society; mental illness decreases military readiness and harms the national and local economy (Davlasheridze, Goetz, and Han 2018; Kesling 2019). Mental health has a profound impact in schools, with positive mental wellbeing being linked to better academic outcomes (Kase et al. 2017). Conversely, poor mental health is linked to lower academic achievement, which affects future academic leadership performance and life outcomes (Joe, Joe, and Rowley 2009; Guerra, Rajan, and Roberts 2019; Suldo et al. 2014). The mental health of children is also vital for school safety, as student mental health is linked to instances of violence such as fights and school shootings (Bohnenkamp et al. 2023; Flannery et al. 2021; A. Mann et al. 2019).

The current state of mental health among Iowa's youth is extremely poor. The Iowa Youth Survey is a statewide survey by the Iowa Department of Health and Human Services used to assess many measures of Iowa students in public schools. In 2021, the survey found that 27% of 6th-grade students, 29% of 8th-grade students, and 36% 11th-grade students had reported feeling so sad or hopeless every day for two weeks that they stopped doing certain activities in the past year (Kyle Endres et al. 2022). Furthermore, the survey found that 17% of 6th-grade students, 21% of 8th-grade students, and 24% of 11th-grade students have reported suicidal ideation in the past year. Of those students who reported suicidal ideation, around half had a plan to commit suicide (Kyle Endres et al. 2022). Iowa is not the only state experiencing poor mental health outcomes among youth. A joint statement put out by the American Academy of Pediatrics

(AAP), American Academy of Child and Adolescent Psychiatry (AACAP), and Children's Hospital Association (CHA) declared a state of emergency for school mental health in 2021 (Cummings, Wilk, and Connors 2022).

As there has been poor mental health in Iowa schools, there has also been an increased need for mental health services. Nationwide, over 18% of students in public schools used school-based mental health services (National Center for Education Statistics 2025). Iowa has felt this need, especially after COVID, with an increased student demand for these services (Iowa Advisory Committee to the U.S. Commission on Civil Rights 2025). Waiting lists for services have grown, with school districts like the Cedar Rapids Community School District having over 500 students on the waiting list for services (Iowa Advisory Committee to the U.S. Commission on Civil Rights 2025; King 2022).

The poor mental health of Iowa students is not inevitable. Support and intervention through school-based programs have been shown to improve the mental health outcomes for students (Bohnenkamp et al. 2023; Hoover and Bostic 2021). These interventions improve academic performance as well and increase rates of completion for students with disabilities (Camilla Lehr et al. 2004; Kase et al. 2017). Furthermore, services for students' mental health decrease the rate of disciplinary actions such as detention, suspension, and expulsion (Flannery et al. 2021).

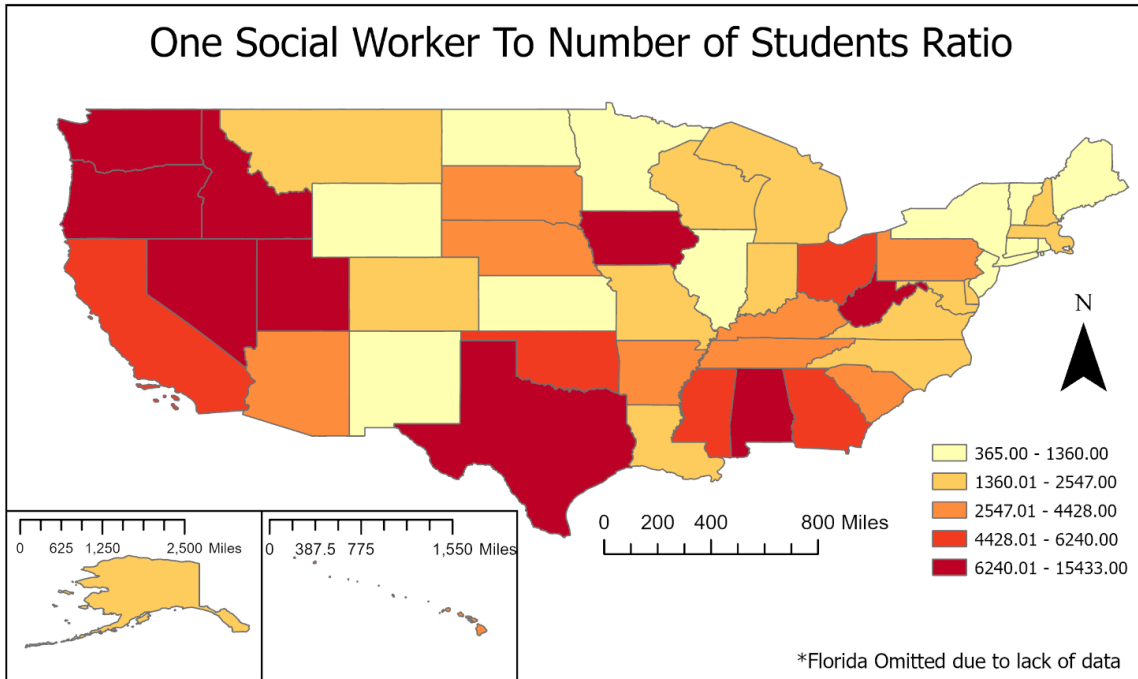
While the research shows support services are wanted and effective at improving mental health, Iowa has a lack of staff equipped to provide these services. Iowa has 1 social worker for every 8,973 students, well above the ideal ratio as set by the School Social Work Association of America of 1 social worker for every 250 students (School Social Work Association of America n.d.). However, Iowa is not alone with these high ratios, with no states meeting the ratio, but a few coming close, such as Illinois with a 1:741 ratio (School Social Work Association of America n.d.). This trend continues with Iowa only having 1 school psychologist for every 1,707 students in the 2023-2024 school year, failing to meet the ideal ratio of 1:500 as advised by the National Association of School Psychologists guidelines (National Association of School Psychologists 2024). Other states, such as Maine and Connecticut, have met this ideal ratio in the 2023-2024 school year. Iowa also fails to reach the ideal ratio of 1 school counselor for every 250 students, as set by the American School Counselor Association, only having 1 counselor for

every 348 students in the 2023-2024 school year (National Association of School Psychologists 2024).

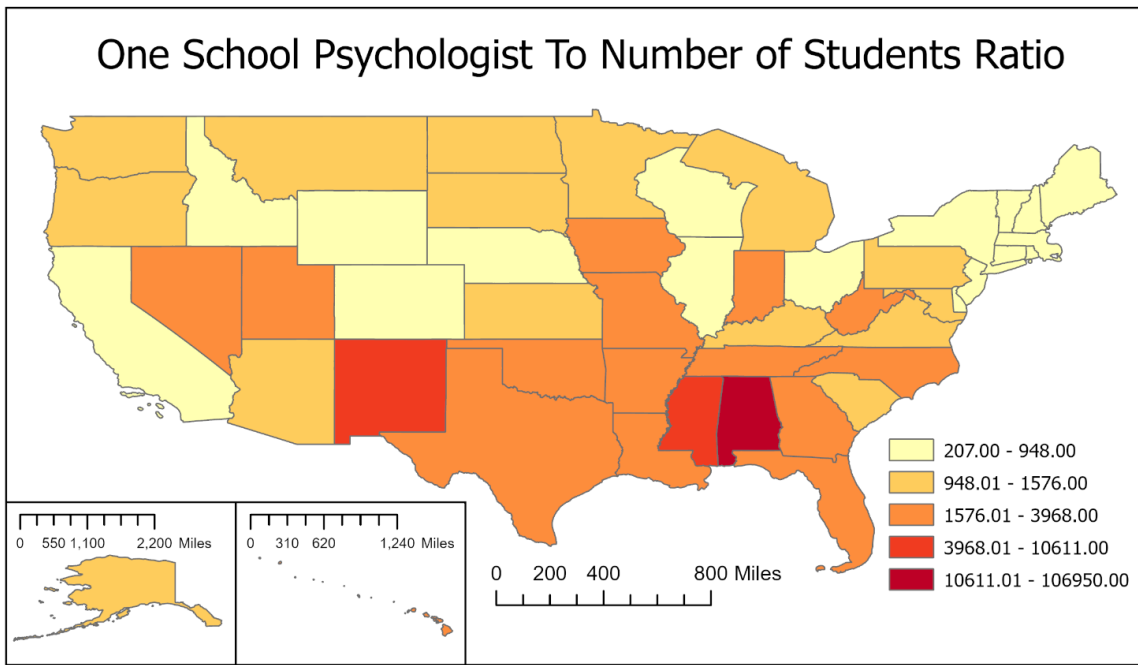
The Iowa Advisory Committee to the U.S. Commission on Civil Rights reports on mental health indicates the shortage of staff harms Iowa students' ability to access services and may be key to students' mental health, as they often provide the primary interventions and support for students' mental health (Iowa Advisory Committee to the U.S. Commission on Civil Rights 2025). There are several possible reasons for the lack of mental health support in Iowa's public schools, such as increased bureaucratic burden, lack of funding, and changing demographics, which will be addressed further in our alternatives sections (Iowa Advisory Committee to the U.S. Commission on Civil Rights 2025). The evidence of lack of support and poor mental health, paired with increased need, illustrates the need for policy change in the state of Iowa.

Support Staff To Student Ratio by State

One Social Worker To Number of Students Ratio



One School Psychologist To Number of Students Ratio



Data Source: US Census, SSWAA, and NASP

Current Legislative Policy

Iowa legislation currently provides a myriad of practices and policies in schools to address the mental health crisis that affects Iowa youth. While Iowa's current policies do not generally appear to specifically address the provider shortage, they aim to improve youth mental health and morale in schools, which can consequently help to reduce burnout and increase worker retention.

Senate File (SF) 583, for example, authorizes school administrators to implement school safety assessment teams (Iowa General Assembly 2025). Composed of law enforcement, mental health professionals, social services, and other professional resources, these teams can provide student information or records when a student is considered to be at-risk of emotional disturbance or mental illness (Iowa General Assembly 2025). These teams create a formal structure and legal basis to collaborate proactively. The issue with this legislation is that there is no requirement or proper funding for these services.

Another policy implementation that addresses mental health directly is House File (HF) 782. This bill restricts cell-phone use during instructional time to protect the mental health of students (Iowa General Assembly 2025). While intended to reduce distraction and improve school climate and functioning, the bill leaves enforcement up to school administrators (Iowa General Assembly 2025). Without uniform standards of implementation, varying policies and enforcement can affect students and families differently depending on the district. Some districts, such as Ottumwa Community School District, have implemented an all-day phone ban (Opsahl, 2025). This has led to safety and freedom concerns from parents, further worsening the bureaucratic burden on school support staff.

To support students with specific behavioral or emotional needs, the Iowa Department of Education for public school districts created a competitive grant program to establish or enhance therapeutic classrooms. A "therapeutic classroom" is defined in the Iowa Administrative Code (281-14.13) as a classroom (or set of services) designed for students (with or without an IEP) whose emotional/social/behavioral needs interfere with their ability to be successful in their current environment until they can transition back to that environment (Iowa Department of Education, n.d). Key components of these classrooms typically consist of a multidisciplinary team that promotes practices that enhance positive childhood classroom experiences, targeted

individualized instruction, and physical adaptations such as sensory toys or quiet spaces. Grants were awarded to 8 different districts for the 2025-2026 school year.

Iowa also has a Mental Health Professional Loan Repayment program in an effort to expand the mental-health workforce within the state. This program offers up to \$40,000 in loan repayment benefits to non-prescribing mental health practitioners serving high-need communities (Legislative Services Agency 2025). Awards may be received for up to five years of full-time service or eight years for part-time.

The proposed initiative, SF 102, would have required annual school personnel mental health training. This training would be evidence-based and determined by nationally recognized best practices for intervention (Iowa General Assembly 2025). Although the bill did not advance out of committee, its introduction reflects concerns about persistent mental health challenges faced by Iowa students and the lack of equipment by school personnel to address these challenges.

Criteria & Overview of Alternatives

When it comes to identifying the best possible avenues of addressing these staffing deficits at schools, there are several policies implemented by other states that offer alternatives at varying levels of cost, efficacy, and overall feasibility in the state of Iowa. From states like Massachusetts to Iowa's neighbor in Illinois, other states have utilized multifaceted approaches to address this issue. A few of these alternatives include increasing hiring and research, procuring Medicaid-based reimbursements, establishing internship/training programs, and reducing bureaucratic burdens.

To evaluate our alternatives, we have chosen three distinct parameters through which we will assess them. The likes of which include monetary cost, effectiveness, and overall feasibility in Iowa. We will then grade each of our alternatives on a scale of 1 through 5 (1 being the worst and 5 being the best) in each of our three chosen criteria. Each alternative will be assessed through a multifaceted lens, highlighting each approach's strengths and weaknesses.

When it comes to cost, we are primarily evaluating the economic impact the alternative will have on the state, local school districts, and the use of federal funding. More specifically, how much additional funding will it require, or from what sources must funds be reallocated?

Second, we will assess the effectiveness of the alternative based on the outcomes it has produced in other states where it has been adopted. The primary outcomes we are looking for include, but are not limited to, retention rates in schools, student-to-staff ratios, rates of depression/negative mental health outcomes in students, and the rate of staff support accessible to students as a result of the policy being implemented.

Finally, we will use the research we have compiled on our findings to assess the alternative's overall feasibility for implementation in the state of Iowa. We will focus on identifying the anticipated political impact for each alternative, primarily through assessing current teacher and support staff opinions. Logistical feasibility is another key component when evaluating each alternative. It is crucial to distinguish between the steps that can be taken by Area Education Agencies (AEAs), districts, and state-wide actors.

Evaluation

We graded our alternatives on a 1-5 scale, with 1 being the most costly, least effective, and least feasible, and 5 being the least costly, most effective, and most feasible.

	Cost	Effectiveness	Feasibility	Total/Average
Increase funding towards hiring and research	1	5	3	3
Medicaid reimbursement programs	3	4	3	3.33
Decreasing bureaucratic burden (Easing license transfer and mandated screenings).	5	2	4	3.66
Paid internships and pipelines.	4	3	3	3.33

Status quo:

The current Iowa policy fits well into the current fiscal environment, primarily focused on low-cost policy changes that are being implemented, making it relatively feasible. However, we are going to compare Iowa's current system to other possible alternatives implemented in other states in order to find solutions that can be cost-efficient, effective, and feasible.

Despite Iowa's ongoing efforts to expand mental-health resources and practices in schools, poor student mental health outcomes and support staff burnout seem to persist. While the state has made meaningful progress by creating programs, grant opportunities, and training, these policies alone are not enough to close the gap. Research suggests that the most effective improvements come from implementing evidence-based, professionally delivered interventions. Schools benefit most when certified health educators and mental health professionals are involved in the design and delivery of support services (Guerra, 2019). Ensuring that school-based practices are research-driven, rather than ad hoc or inconsistently applied, proves essential for creating more sustainable outcomes for Iowa students.

Increasing Funding:

An umbrella policy option for addressing support staff burnout and turnover rates is to increase state funding to improve worker-to-student ratios, provide funding for specialized intervention teams, and expand research on improvement tactics for youth mental health.

First, it is restructuring legislative mandates to maintain the required counselor-to-student ratio. In the state of Kentucky, through legislation like Senate Bill 9, proactive steps have been taken to require schools to have school counselors spend at least 60% of their time directly addressing student behavioral health issues (Barron, Ed, and Bloomdahl n.d.; Clark 2020; Lamb 2023). This mandate was set under the broader goal of having at least one school counselor for every 250 students in a school. Achieving this ratio in Iowa will require restructuring of current budget allocations towards mental health funding in the state.

Additionally, the state of Massachusetts has consistently made efforts to fund mental health infrastructure. One example is the almost \$18 million set aside by the state to be used to directly fund various behavioral health organizations. The Massachusetts government has also invested its resources in creating behavioral-health-focused research commissions, designed to identify issues such as the underlying causes of mental health staff shortages in the state (Hoodline 2025).

Cost: Cost considerations are significant. Hiring a full-time school psychologist can cost between \$50,000-\$80,000 annually, depending on district size, experience level, and benefits (Heartland AEA n.d.). Iowa currently operates with a school-psychologist-to-student ratio of approximately 1:1707, far above the 1:500 standard recommended by the NASP. With roughly

490,000 public school students statewide, Iowa would need to hire around 700 additional school psychologists to meet that benchmark. This expansion would cost an estimated \$36-\$56 million per year, an amount comparable to mental health appropriations in other states. For example, Massachusetts recently dedicated \$18 million for mental-health research teams alone, highlighting that state-level investments are not unprecedented. We ranked this as a 1 out of 5 because of the extremely high burden of the cost directly on the state's budgets.

Effectiveness: The effectiveness of increasing mental health staffing is strongly supported by empirical research. Evidence shows that consistent access to school-based social workers and mental health professionals is associated with improved behavioral, social, and academic outcomes (Lee et al. 2023). Greater mental-health staffing has also been linked to reduced teacher stress, improved workplace climate, and lower burnout, all of which directly influence mental health outcomes (Ding et al. 2023). The easiest and most direct way to increase staff and support would be to hire more professionals in schools. The effectiveness ranks high, earning a 5 out of 5, as it directly addresses staffing shortages and is almost guaranteed to provide more in-school care to students.

Feasibility: The feasibility of funding increases depends on Iowa's fiscal capacity and political willingness to prioritize staff and student well-being. Iowa must assess whether the state can allocate tens of millions toward personnel additions and/or whether there is room in the existing budget for smaller appropriations, such as for a research team. One feasible way that Iowa could amend existing policies would be to fund School Safety Assessment Teams (SF 583) and the introduced SF 102 for annual staff training. While Iowa maintains a budget surplus in certain fiscal years, dedicating funds toward long-term personnel costs and programs would carry a significant financial commitment. Nonetheless, given the demonstrated link between mental-health staffing and improved outcomes, expanding funding remains a feasible and evidence-based strategy for reducing burnout and turnover among support staff. The feasibility is mildly feasible, earning a 3 out of 5, as it is very logistically feasible but politically infeasible.

Medicaid Reimbursement Programs:

Currently, Iowa uses Medicaid reimbursements for students who are under Individualized Education Programs (IEPs) or Individualized Family Service plans (IFSPs). As Medicaid reimbursement already exists, the current state budget for school-based reimbursements includes

around 75.5 million in federal Medicaid funds given to LEA and AEA for special education programs in FY 2022-23 (Iowa Department of Education n.d.). Other states, such as Kentucky and Massachusetts, have expanded the reach of Medicaid reimbursements for mental health-based services, which may be accessible to a much broader range of eligible students. This expansion would significantly increase the amount of financial resources available to school districts, allowing them to hire additional permanent staff (Close 2024). While similar to the increasing funding alternative, the use of federal funding and the complexity of the reimbursements make it a distinct alternative for evaluation.

Cost: The funding consideration for Medicaid reimbursement is a complex picture, dependent on the number of eligible students and cost-sharing between the federal and state governments. Medicaid is funded both through federal and state funding. The current Federal Medicaid match (FMAP) for Iowa is around 62.7% federal money and 37.3% state money. (KFF n.d.) As Medicaid reimbursement already exists, the current state budget for school-based reimbursements includes around 75.5 million in federal Medicaid funds given to LEA and AEA for special education programs in FY 2022-23 (Iowa Department of Education n.d.). Based on 2023–24 Iowa enrollment data, there are approximately 483,699 K–12 public school students (Iowa Department of Education 2024). Currently, the State average for children covered by Medicaid or CHIP is 37.8% eligible (Medicaid Coverage in Iowa Counties, 2023-2025). Currently, around 14.0% have an IEP or IFSP in Iowa (National Center for Education Statistics n.d.). The change would provide services to around 181,215 Medicaid-eligible K–12 students who would not currently be billed through IEP-based school Medicaid. Assuming a utilization of five 30-minute sessions per eligible student per year at an average reimbursement of \$30 per session, total new Medicaid billings would approximate \$27.2 million annually (Iowa Department of Education n.d.). Applying Iowa’s FY2025 FMAP of 63.25%, about \$17.2 million would be covered by federal funds, with the remaining \$10.0 million borne by the state or local match. The cost earns 3 out of 5 as it requires a medium amount of state funding.

Effectiveness: 28 states have fully implemented this change, which illustrates the increase in federal funding as well as increased rates of utilization. Louisiana, the first state to implement this program in 2015, saw a 35% increase in federal revenue after changing its Medicaid program (Financial Impact of Expanding School Medicaid Programs – 2024 n.d.; Syed 2025). Illinois, which expanded in 2023, gained \$17.8 million in additional Medicaid funding (Healthy

Schools Campaign 2024). The New Mexico program saw a 10.18% increase in reimbursement rate from school districts (Financial Impact of Expanding School Medicaid Programs 2024). Michigan changed its Medicaid system to expand beyond students with IEP/IFSP in the fall of 2019 and has been proven to be overall successful in school uptake, with almost all school districts participating, and increased students' ability to access mental health services (Cardwell 2021). One potential barrier to effectiveness is the low cost of reimbursements. This could be easily addressed as the state sets reimbursement rates (Iowa Department of Education n.d.). New CMS guidelines have opportunities for higher reimbursement rates as well as expanding provider qualification requirements (Panchal, Mudumala, and Rudowitz 2024). Other states, such as South Carolina, have a separate fee schedule for services provided in schools. (Panchal and Guth 2023). Given the high likelihood of success but taking into account possible barriers to effectiveness, this alternative earns a 4 out of 5.

Feasibility: In 2014, the Centers for Medicare & Medicaid Services (CMS) changed their guidelines around school-based care, allowing states to expand programs in schools to provide services outside of students with IEP/IFSPs (C. Mann 2014). The CMS encouraged states to adopt this change in their 2023 guidelines for changing and expanding Medicaid reimbursement in schools (Walker n.d.). These guidelines actively encourage states to shift toward reimbursement for students not on IEP/IFSPs and provide tools and changes to ease the burden placed on administrators (Close 2024). Iowa's existing system for Medicaid reimbursement, which includes existing fee tables, as well as the Eligibility Verification and Information System (ELVS) Portal to verify eligibility, is in place (Iowa Department of Education n.d.). These systems could be leveraged with the expansion, limiting the financial and bureaucratic burden on the state with this alternative. The main concern with feasibility is the burden this places on school districts for filing for reimbursements and coherent duplicate systems, one for students with IEP/IFSP and one for students without disabilities. (Cardwell 2021). Michigan was able to overcome the burdens of school districts by providing ample guidance for them. Iowa may be able to do something similar as they have previously held several webinars for school districts and staff and could rely on advocacy groups such as the National Alliance for Medicaid in Education, Inc. (Medicaid Exclusions and Suspensions Checks for School-Based Service Providers 2022; Medicaid Exclusions and Suspensions Checks for School-Based Service Providers 2022; National Alliance for Medicaid in Education, Inc. (NAME) - Home 2021).

Medicaid reimbursements earned a 3 out of 5 for feasibility, while it is highly politically feasible with other states similar to Iowa implementing it, its logistical feasibility is lower, with a high burden on school districts.

Decreasing Bureaucratic Burden (Easing license transfer and mandated screenings):

Iowa's neighbor, Illinois, has passed multiple pieces of legislation that take a step forward towards this goal of retention while decreasing the burden placed on the state government. One such bill is Senate Bill 3617, which aims to ease the transfer of a professional's counselor/psychologist license to Illinois for experienced professionals (Illinois General Assembly 2022). Illinois has also recently passed Senate Bill 1560, which mandates schools to screen their students from grades 3 through 12 for mental health concerns (Illinois General Assembly 2024). The former bill allows for an increased workforce in the state. At the same time, the latter helps prevent staff burnout by allowing them to address students' mental health issues in their earlier stages, enabling them to focus on preventive measures.

Cost: Senate Bill 1560 is not as expensive to implement as some of the other alternatives we have discussed, since the screening tools and basic instructional material account for the majority of the expenses that the state may incur (Illinois General Assembly 2024). Senate Bill 3167, which makes it easier for behavioral health professionals from other states to transfer their professional licenses, is another cost-effective measure, since the main expenses are clerical and pertain to updating specific documents and general administrative practices, earning a 5 out of 5 for the cost criteria.

Effectiveness: Illinois Senate Bill 1560 has yet to go into effect in the state, until January 1st of 2026 at the earliest. However, it is not improbable that such an effort will indeed have a positive effect on addressing staff burnout, due to its ability to identify crucial mental health issues at an early stage, focusing on prevention, and reducing crisis management cases as students grow older. The structure of the law itself, particularly its emphasis on routine screenings, staff training guidance, and phased implementation, reflects a policy design focused on early identification and referrals rather than crisis-driven interventions (Illinois General Assembly 2024). However, Illinois Senate Bill 3617 needs more conclusive data before assessing its true effectiveness. While Illinois has seen an increase in the overall number of social workers in the state since 2021 (NAWS-Illinois 2024), it is unclear what direct effect this

bill has had on the school system. If the state of Iowa were to implement such a model, it would have to make it more geared towards schools to maximize its effectiveness. The restructuring of such licenses can improve the staff shortage issue by relaxing barriers for experienced professionals considering relocating to Iowa. However, the effectiveness of the Illinois bill at increasing staff in schools is still unknown, due to the lack of outcomes and the lack of direct data on the ratios in schools. For these reasons, this alternative earns a 2 out of 5 on our effectiveness criteria.

Feasibility: Alternatives such as Illinois SB 3617 and SB 1560 appear to be some of the most feasible at present in Iowa. The primary reasons for this have to do with their ease of implementation and low financial burden on the state. The former alternative would primarily rest on adjusting certain guidelines and rules when managing matters of licensing, while the latter would focus on a simple screening tool that would need to be slowly integrated into Iowa's school system. Granted, counseling staff would require some kind of basic training at a minimum to successfully operate the screening tools, which is an important consideration. We therefore gave this alternative 4 out of 5 in this category.

Paid Internship Programs and Career Pipelines:

States like Ohio have also implemented various paid-internship opportunities, professional training workshops, and pipeline projects to counseling-based jobs. The "Grow Your Own" pilot program initiated by the Ohio government in partnership with the Ohio State University is one such example (Bates et al., 2024). Michigan has adopted a similar approach through the Michigan Behavioral Health Internship Stipend Program (MI-BHISP), which provides direct financial support to graduate students completing required behavioral health internships, including placements in school settings.

Cost: Paid internship/training programs for school psychologists, such as the ones adopted by the state of Ohio and Michigan, are more cost-heavy than regulatory or reimbursement-based alternatives, as they require the direct allocation of state funds towards such infrastructure. Michigan's MI-BHISP illustrates this cost clearly, as it provides stipends of up to \$15,000 per graduate student to offset living and training expenses during required internships (Michigan Department of Health and Human Services 2023). However, the costs for these programs are heavily offset by their contribution to a positive increase in the number of new counselors

present in schools. Nonetheless, because increased funds must be appropriated directly from the state budget, paid internship programs place a higher immediate fiscal burden on the state compared to alternatives that leverage federal funds or regulatory changes. For these reasons, we assigned this alternative a score of 4 out of 5 in the cost category.

Effectiveness: The internship training programs offered in Ohio and Michigan demonstrate strong effectiveness because of their straightforward approach to developing a workforce. By subsidizing the costs of an internship, these programs reduce financial barriers that often deter students from entering, or even completing, their school-based mental health training programs. Michigan's MI-BHISP further strengthens this approach by supporting trainees during the most resource-intensive stage of their education, encouraging entry into high-need behavioral health roles. Additionally, placing interns directly within school or community-based settings with financial support fosters an environment where the state develops professionals within. That being said, its effectiveness when implemented on a larger scale, as would be required in Iowa to reach the ideal ratio of 1:250, is still very uncertain. For that reason, we assigned it a moderate score of 3 out of 5.

Feasibility: Despite their effectiveness, paid internship pipeline programs are more difficult to implement in Iowa in the short term. As we mentioned above, the primary barrier is cost, as continuous state funding would be required to support stipends comparable to Michigan's \$15,000 per trainee. Moreover, such initiatives often require coordination between state agencies, universities, and school districts, as well as sufficient supervisory capacity within placement sites. That said, Michigan's MI-BHISP demonstrates that these programs can be embedded within existing higher education and training infrastructures, rather than built entirely from scratch. Iowa's public university system and Area Education Agencies could, in theory, support a version of this model. However, due to the need for considerable restructuring and administrative coordination, paid internship programs remain less immediately feasible than lower-cost alternatives such as Medicaid reimbursement expansion or easing licensure barriers. For those reasons, we assigned this alternative a score of 3 out of 5 in this category.

Conclusion & Recommendation

We are opting to recommend the second and third alternatives of decreasing bureaucratic burden through easing license transfer and mandated screening and adopting a Medicaid

reimbursement program. Medicaid reimbursement programs directly address the financial aspect of hiring and retaining support staff. We opted for Medicaid reimbursement programs over a general increase of funding from the state budget because it divides the cost among the federal government, making it more cost-effective and therefore more politically feasible for the state of Iowa.

In tandem with Medicaid reimbursement, we are recommending easing license transfer and mandated screening. While slightly less effective, this alternative allows school districts to make better use of additional funding gained from Medicaid by expanding their applicant pool as well as reducing the bureaucratic burden on mental health practitioners in schools. The low cost of easing license transfer and mandated screenings makes it a relatively low-risk option for the state to implement. Given the state's need to take action to address the abysmal state of student mental health in Iowa, these alternatives present a starting point to discuss and debate future legislation.

BIBLIOGRAPHY

- Barron, Kaet, M Ed, and Susana Bloomdahl. “Contributors to the Kentucky Framework of Best Practices for School Counselors:”
- Bates, S. M., Anderson-Butcher, D., Wolfe, T., Ondrus, C., Delaney, S., Marschhausen, J., McAulay, O., & Klakos, K. (2024). Grow your own school mental health specialists: A policy pilot to address behavioral health workforce shortages in schools. *Behavioral Sciences (Basel)*, 14(9), 813. <https://pmc.ncbi.nlm.nih.gov/articles/PMC11428268/>
- Bohnenkamp, Jill H., Samantha N. Hartley, Joni W. Splett, Colleen Halliday, Darien Collins, Sharon Hoover, and Mark D. Weist. 2023. “Promoting School Safety through Multi-Tiered Systems of Support for Student Mental Health.” *Preventing School Failure: Alternative Education for Children and Youth* 67(1): 9–17. doi:10.1080/1045988X.2022.2124221.
- Camilla Lehr, David R Johnson, Megan Thompson, Chris Bremer, and Anna Cosio. 2004. *NCSET Essential Tools: Increasing Rates of School Completion - Moving From Policy and Research to Practice*. National Center on Secondary Education and Transition (NCSET). <https://ici.umn.edu/products/34> (October 23, 2025).
- Cardwell, Anita. 2021. “Michigan’s Caring for Students Program Leverages Medicaid Funding to Expand School Behavioral Health Services.” *NASHP*. <https://nashp.org/michigan-caring-for-students-program-leverages-medicaid-funding-to-expand-school-behavioral-health-services/> (November 11, 2025).
- CDC. 2025. “About Children’s Mental Health.” *Children’s Mental Health*. <https://www.cdc.gov/children-mental-health/about/index.html> (November 11, 2025).
- Clark, Jess. 2020. “Adding School Counselors Might Make Schools Safer, But Only If They Can Actually Counsel Students.” *Louisville Public Media*. <https://www.lpm.org/news/2020-02-28/adding-school-counselors-might-make-schools-safer-but-only-if-they-can-actually-counsel-students> (October 9, 2025).
- Close, Jeylan. 2024. “Medicaid Reimbursement for School-Based Mental Health Services.” *Pediatrics* 153(4): e2023064074. doi:10.1542/peds.2023-064074.
- Cummings, Janet R., Adam S. Wilk, and Elizabeth H. Connors. 2022. “Addressing the Child Mental Health State of Emergency in Schools—Opportunities for State Policy Makers.” *JAMA Pediatrics* 176(6): 541–42. doi:10.1001/jamapediatrics.2022.0094.
- Davlasheridze, Meri, Stephan J. Goetz, and Yicheol Han. 2018. “The Effect of Mental Health on US County Economic Growth.” *Review of Regional Studies* 48(2): 155–71. doi:10.52324/001c.7997.
- “Financial Impact of Expanding School Medicaid Programs -- 2024.” 2024. *Healthy Students, Promising Futures*. <https://healthystudentspromisingfutures.org/resources/financial-impact-of-expanding-school-medicaid-programs-2024/> (November 11, 2025).

- Flannery, Daniel J., James Alan Fox, Lacey Wallace, Edward Mulvey, and William Modzeleski. 2021. "Guns, School Shooters, and School Safety: What We Know and Directions for Change." *School Psychology Review* 50(2–3): 237–53. doi:10.1080/2372966X.2020.1846458.
- Healthy Schools Campaign. 2024. "New Data Shows Success of School Medicaid Expansion in Illinois | Healthy Schools Campaign." *Healthy Schools Campaign | Helping Children Learn and Thrive*. <https://healthyschoolscampaign.org/blog/new-data-shows-success-of-school-medicaid-expansion-in-illinois/> (November 11, 2025).
- Hoover, Sharon, and Jeff Bostic. 2021. "Schools As a Vital Component of the Child and Adolescent Mental Health System." *Psychiatric Services* 72(1): 37–48. doi:10.1176/appi.ps.201900575.
- Illinois General Assembly. 2024. Senate Bill 1560: An Act Concerning Mental Health (Universal Mental Health Screenings in Schools). Springfield, IL: Illinois General Assembly. <https://www.ilga.gov/Legislation/BillStatus/FullText?GAID=18&DocNum=1560&DocTypeID=SB&LegId=160264&SessionID=114>
- Illinois General Assembly. 2022. Public Act 102-1053 (SB 3617): Mental Health—Various. Springfield, IL: Illinois General Assembly. <https://www.ilga.gov/documents/legislation/PublicActs/102/102-1053.html>
- Iowa Advisory Committee to the U.S. Commission on Civil Rights. 2025. *Access To Mental and Behavioral Health Care for Students in K-12 Schools*. The Iowa Advisory Committee to the U.S. Commission on Civil Rights. https://www.usccr.gov/files/2025-04/ia-sac-report_access-to-mental-and-behavioral-health-in-k-12-schools.pdf (October 14, 2025).
- Iowa Department of Education. 2024. "Certified Enrollment for 2023-24 Holds Steady; 16,757 ESA Participants Enrolled at Iowa Accredited Nonpublic Schools | Department of Education." <https://educate.iowa.gov/press-release/2024-01-26/certified-enrollment-2023-24-holds-steady-16757-esa-participants-enrolled-iowa-accredited-nonpublic> (November 11, 2025).
- Iowa Department of Education, "School-Based Medicaid | Department of Education." <https://educate.iowa.gov/pk-12/student-supports/specialized-support/medicaid> (October 9, 2025).
- Iowa General Assembly. 2025. *House File 782*. 91st General Assembly, Iowa. <https://www.legis.iowa.gov/legislation/BillBook?ga=91&ba=HF782>
- Iowa General Assembly. 2025. *Senate File 102*. 91st General Assembly, Iowa. <https://www.legis.iowa.gov/legislation/BillBook?ga=91&ba=SF102>
- Iowa General Assembly. 2025. *Senate File 583*. 91st General Assembly, Iowa. <https://www.legis.iowa.gov/legislation/BillBook?ga=91&ba=SF583>

- Kase, Courtney, Sharon Hoover, Gina Boyd, Kristina D. West, Joel Dubenitz, Pamala A. Trivedi, Hilary J. Peterson, and Bradley D. Stein. 2017. "Educational Outcomes Associated With School Behavioral Health Interventions: A Review of the Literature." *The Journal of School Health* 87(7): 554–62. doi:10.1111/josh.12524.
- Kesling, Ben. 2019. "For Many Soldiers, Mental-Health Issues Start Before Enlistment." *Wall Street Journal*. <https://www.wsj.com/articles/for-many-soldiers-mental-health-issues-start-before-enlistment-11575561604> (October 18, 2025).
- KFF "Federal Medical Assistance Percentage (FMAP) for Medicaid and Multiplier | KFF State Health Facts." *KFF*. <https://www.kff.org/medicaid/state-indicator/federal-matching-rate-and-multiplier/> (November 11, 2025).
- King, Grace. 2022. "Workforce Shortage Hampers Mental Health Care at Schools." *The Gazette*. <https://www.thegazette.com/k/workforce-shortage-hampers-mental-health-care-at-schools/> (October 14, 2025).
- Kyle Endres, Ki Park, Erin O. Heiden, and Mary E. Losch. 2022. *2021 Iowa Youth Survey Special Topics Report: Mental Health Findings*. Cedar Falls, IA: Center for Social and Behavioral Research, University of Northern Iowa. Departmental Report. <https://publications.iowa.gov/46682/> (September 25, 2025).
- Lamb, Audrie. 2023. "Kentucky's Superintendents Advisory Council Hears Analysis on School Counselor Use of Time, Legislative Update." *Kentucky Teacher*. <https://www.kentuckyteacher.org/news/2023/05/kentuckys-superintendents-advisory-council-hears-analysis-on-school-counselor-use-of-time-legislative-update/> (October 9, 2025).
- Mann, Angela, Amir Whitaker, Sylvia Torres-Gullien, Michelle Morton, Harold Jordan, Stefanie Coyle, and Wei-Lung Sun. 2019. "Cops & No Counselors: How the Lack of School Mental Health Staff Is Harming Students." *Showcase of Faculty Scholarly & Creative Activity*. <https://digitalcommons.unf.edu/facultyshowcase/2019/showcase/11>.
- Mann, Cindy. 2014. "Medicaid Payment for Services Provided without Charge (Free Care)." <https://www.medicaid.gov/federal-policy-guidance/downloads/smd-medicaid-payment-for-services-provided-without-charge-free-care.pdf>.
- "Medicaid Coverage in Iowa Counties, 2023." 2025. *Center For Children and Families*. <https://ccf.georgetown.edu/2025/02/06/medicaid-coverage-in-iowa-counties-2023/> (November 11, 2025).
- Medicaid Exclusions and Suspensions Checks for School-Based Service Providers*. 2022. <https://www.youtube.com/watch?v=xKDq2vDpyM0> (November 11, 2025).
- Michigan Department of Health and Human Services. 2023. Michigan Behavioral Health Internship Stipend Program (MI-BHISP). Lansing, MI: Michigan Department of Health

- and Human Services. <https://www.michigan.gov/mdhhs/inside-mdhhs/legislationpolicy/workforce-access-and-grants-management-section/mi-bhisp>
- “National Alliance for Medicaid in Education, Inc. (NAME) - Home.” 2021. *National Alliance for Medicaid in Education, Inc. (NAME)*. <https://www.medicaidforeducation.org/> (November 11, 2025).
- National Center for Education Statistics, “Digest of Education Statistics.” https://nces.ed.gov/programs/digest/d23/tables/dt23_204.70.asp (November 11, 2025).
- National Center for Education Statistics. “School Pulse Panel - Interactive Results.” 2025. <https://nces.ed.gov/surveys/spp/results.asp#mentalhealth-march25-chart8> (October 18, 2025).
- National Association of School Psychologists. 2024. “State Shortages Data Dashboard.” *National Association of School Psychologists (NASP)*. <https://www.nasponline.org/about-school-psychology/state-shortages-data-dashboard> (October 9, 2025).
- Panchal, Nirmita, and Madeline Guth. 2023. “Leveraging Medicaid for School-Based Behavioral Health Services: Findings from a Survey of State Medicaid Programs.” *KFF*. <https://www.kff.org/mental-health/leveraging-medicaid-for-school-based-behavioral-health-services-findings-from-a-survey-of-state-medicaid-programs/> (November 11, 2025).
- Panchal, Nirmita, Anna Mudumala, and Robin Rudowitz. 2024. “Examining New Medicaid Resources to Expand School-Based Behavioral Health Services.” *KFF*. <https://www.kff.org/mental-health/examining-new-medicaid-resources-to-expand-school-based-behavioral-health-services/> (November 11, 2025).
- School Social Work Association of America. *The National Census: The Status of School Social Work*. London, KY: SSWAA. https://426a18cd-da3e-4ce5-bd09-cd6062cfc6d6.usrfiles.com/ugd/426a18_8c6f41ccdc694bdb892f88b3516cd1b5.pdf (October 18, 2025).
- Syed, Safura. 2025. “Medicaid Cuts in Trump’s Tax and Spending Law Could Burden School Budgets.” *WWNO*. <https://www.wwno.org/education/2025-08-05/medicaid-cuts-in-trumps-tax-and-spending-law-could-burden-school-budgets> (November 11, 2025).
- Walker, Abigail (CMS/CMCS). “Delivering Services in School-Based Settings: A Comprehensive Guide to Medicaid Services and Administrative Claiming.”

Analyzing Iowa’s Unique Approach to Cannabis Policy from the Standpoints of Criminal Justice, Public Health, and Economic Impact.

David Cacho, Sonja Cutts, and Grace Nelson

Executive Summary

This policy report evaluates Iowa’s cannabis policies within the broader national landscape, assessing how the state’s current framework affects criminal justice, public health, and economic outcomes. Our findings show that Iowa’s restrictive approach contributes to high enforcement and incarceration costs, persistent racial disparities, and a limited and unstable legal market, while offering relatively few public health benefits compared to states that have adopted more flexible regulatory systems. To address these challenges, we recommend that Iowa adopt a reclassification-based decriminalization model that replaces criminal penalties for possession of up to one ounce of cannabis with a civil infraction and automatically expunges prior low-level cannabis convictions. Our recommendation also includes restoring the state’s THC cap to pre-HF 2605 levels to stabilize the existing low-THC market and implementing a scaled excise tax tied to THC potency to discourage high-risk products while generating revenue for healthcare and harm-reduction programs. This approach offers a politically viable path toward reducing incarceration and racial disparities, improving consumer safety, and strengthening Iowa’s cannabis market without requiring the creation of a full adult-use legalization system.

Introduction

Cannabis policy in the United States has changed significantly in recent decades, with states adopting a wide range of approaches. Some (e.g. Illinois, Minnesota, Missouri) have adopted legalization, establishing regulated markets where adults may purchase, possess, and use cannabis products. Others (e.g. Mississippi, Nebraska, North Dakota) have opted for decriminalization, which keeps possession unlawful but reduces penalties to citations, fines, or other non-jailable offenses. Many states, however, including Iowa, still rely on criminalization, preserving strong criminal penalties for most forms of cannabis possession and use even as

certain legal products are allowed under federal and state law (National Conference of State Legislatures 2024). Situated within this national variation, our report examines how Iowa's more restrictive approach operates in practice. Using statewide data and findings from states that have pursued alternative policies, our analysis explores how different regulatory models shape law enforcement, health outcomes, and economic effects. These comparisons help identify potential directions Iowa may consider as it evaluates future cannabis policy options.

Background

As national support for marijuana reform increased in the 2000s and 2010s, many states moved toward legalizing recreational and/or medical marijuana. This broader shift prompted Iowa to consider its own policy options. In 2014, the state passed the Medical Cannabidiol Act, legalizing CBD oil for patients with specific qualifying conditions (Ramm 2024). Because the law did not establish an in-state supply chain, however, patients were forced to cross state lines to legally obtain their medication (Petroski 2014). Iowa addressed this gap in 2017 with HF 524, which expanded the list of eligible medical conditions and authorized the production of low-THC cannabis products within Iowa (Murphy 2017). The federal landscape shifted in 2018 with the passage of the Farm Bill, which set the national 0.3 percent THC threshold that distinguishes legal hemp from marijuana, opening the door to a wider range of hemp-derived products (Parker 2025). Building on this federal change, Iowa enacted HF 2581 in 2020, legalizing the manufacture of low-THC consumable hemp products in the state (Reynolds 2020).

Despite these incremental changes, cannabis remains a Schedule I substance under the Controlled Substances Act, and Iowa continues to enforce strict penalties for possession of illegal cannabis. A first offense carries a \$1,000 fine, and a second offense can lead to up to one year of incarceration. Medical cannabis access is also limited: patients may obtain only 4.5 grams of THC-infused products every 90 days, and smokeable or vaporized forms remain prohibited. (Yona 2025). Legislative pushes for broader legalization in Iowa have been unsuccessful. 2023's Senate File 73, which would have legalized possession, manufacturing, delivery, and retail sales (James 2023), failed to pass, as did its 2024 successor, HF 442 (Konfrst 2023). Instead, the legislature adopted HF 2605 in 2024, which imposed stricter THC limits on consumable products, added new health warning label requirements, and restricted sales to individuals under 21 (Opsahl 2024). Following HF 2605, several low-THC product

manufacturers sued the state, citing financial losses, production disruptions, and inability to sell existing inventory that exceeded the new THC caps (Parker 2025).

Public attitudes and behavior toward cannabis in Iowa are far more permissive than state law suggests. State data suggest that marijuana is one of Iowa’s most commonly used intoxicants (Bayens 2025), with University of Iowa students reporting daily marijuana use at twice the national average (Breux 2019). Despite criminal penalties, marijuana possession accounts for 55 percent of all drug arrests (ACLU of Iowa 2022), and 52 percent of Iowans support recreational legalization (University of Iowa Hawkeye Poll 2022). These trends highlight a growing social acceptance of cannabis in Iowa that contrasts sharply with the state’s restrictive legal framework.

Against this backdrop of incremental reform, shifting public attitudes, and continued criminal enforcement, this report examines how Iowa’s cannabis policies operate in practice. The analysis proceeds through three lenses—criminal justice, public health, and economic outcomes—each evaluated using defined sub-criteria to assess policy effectiveness. Drawing on statewide data and evidence from other states, the report then considers alternative policy approaches to address the limitations of Iowa’s current framework. The report concludes by synthesizing these findings into a set of recommendations informed by both empirical evidence and Iowa’s broader policy context.

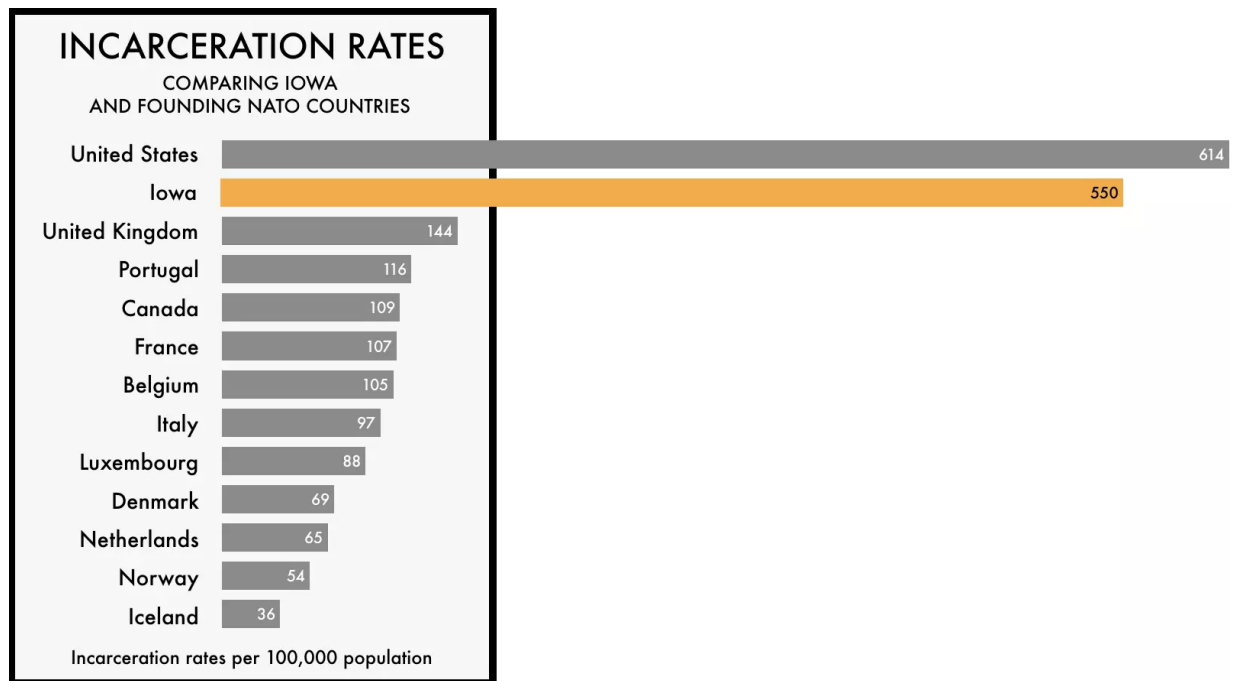
Cannabis Policy from a Criminal Justice Perspective

Introduction

The first criterion we’re using to evaluate Iowa’s current cannabis policy and its potential alternatives is their effect on the criminal justice system (CJS). Specifically, we want to evaluate whether or not these policies increase justice and equity within the CJS. The four sub-criteria we’re using to define “increased justice and equity” are as follows—

1. Reduced incarceration rates: Iowa incarcerates 550 of every 100,000 residents—a rate higher than nearly every democratic nation in the world (Figure 1). Iowa also imposes substantially longer prison sentences than both neighboring states and the national average, including the longest sentences in the country for drug offenses and crimes against persons (Petrino 2025). Advancing justice and equity within Iowa’s CJS requires

confronting these disproportionate incarceration patterns and examining how cannabis policy directly and indirectly contributes to them.



Source: <https://www.prisonpolicy.org/global/2024.html>

Figure 1: Iowa's incarceration rates versus those of various democratic countries (Prison Policy Initiative 2024).

2. Effective allocation of criminal justice resources: Although Iowa ranks among the lowest states in per-capita spending on policing and corrections, it maintains one of the highest incarceration rates relative to its population (Stroka 2021). This mismatch reflects a resource-strained, high-volume system that prioritizes incarceration over prevention, treatment, and reentry. Iowa has the third-fewest correctional staff in the region but faces some of the heaviest workloads. More than 60 percent of incarcerated Iowans have a diagnosed mental illness or substance use disorder, and few communities offer pre-jail deflection or treatment-based diversion programs (Office of Drug Control Policy 2023). The state's prisons operate about 22 percent over capacity, and Iowa spends far more on incarceration than on community-based alternatives—\$349 million compared to \$153 million annually (Iowa Department of Corrections 2025; Ma 2024). Despite nearly \$1 billion in annual criminal justice spending, this punitive model strains facilities and staff

while failing to meet incarcerated individuals' needs, undermining justice and equity (Iowa Legislature 2024).

3. Reduced rates of racial disparities within the CJS: Iowa, one of the whitest states in the nation, consistently ranks among the worst for racial disparities in the CJS. Black Iowans are 9.3 times more likely to be incarcerated than white Iowans and comprise 25 percent of the prison population despite making up only 4 percent of the state's total population (Payne 2021). Although Iowa has made limited progress since ranking worst in the nation for disproportionate Black incarceration in 2007 (Haley 2016), it still ranked seventh worst by 2023, indicating that disparities remain severe (ACLU of Iowa 2023; Wang 2023). Addressing racial inequities within the criminal justice system is therefore essential to advancing justice and equity statewide.
4. Reduced crime rates: Out of its seven surrounding states, Iowa has the second lowest crime rate, and its overall crime rate is roughly 70% of the national average (USAFacts 2025). Nationally, this places Iowa 33rd in overall crime (The Advocates 2024). Promoting a more just and equitable CJS means not only working to sustain lower crime rates, but also exploring the policies that may directly or indirectly contribute to them.

Measure of Justice and Equity #1: Reduced Incarceration Rates

Iowa continues to pursue a criminalization approach to recreational cannabis policy. In 2010, cannabis-related offenses represented about 53% of all drug arrests nationwide (Gunadi and Shi 2023). Over 80% of these arrests were for simple possession. Following the widespread legalization efforts of the 2010s, cannabis-related offenses declined substantially, representing only 22% of all drug arrests in 2024. (National Organization for the Reform of Marijuana Laws 2025b). Comparatively, cannabis-related offenses still make up 55% of all drug arrests in Iowa (ACLU of Iowa 2020). In some Iowa counties, they account for 20% of *all* arrests, both drug and non-drug-related (Spellman Law 2019).

These figures indicate that Iowa has not followed many other states in implementing cannabis policy reform that addresses high incarceration rates for low-level drug offenses. Indeed, Iowa remains one of the only states to still arrest individuals for possessing small amounts of cannabis (Marijuana Policy Project 2025). Iowa also enforces one of the most severe first-offense penalties in the country: possession of any amount of cannabis is punishable by up

to six months in jail (MPP 2025; Table 1). These exceptionally strict penalties account for a large amount of arrests and directly contribute to Iowa’s high incarceration rates. Among the many consequences of this approach is its role in perpetuating the broader public health crisis associated with mass incarceration. This effect is examined in greater depth in the public health section of this report.

State	Cannabis Penalties							
Iowa	<table border="1"> <thead> <tr> <th data-bbox="393 659 1024 730">Offense</th> <th data-bbox="1024 659 1170 730">Penalty</th> <th data-bbox="1170 659 1284 730">Incarceration</th> <th data-bbox="1284 659 1424 730">Max. Fine</th> </tr> </thead> </table>				Offense	Penalty	Incarceration	Max. Fine
	Offense	Penalty	Incarceration	Max. Fine				
	Possession							
	Any amount (first offense)	Misdemeanor	6 months	\$ 1,000				
	Any amount (second offense)	Misdemeanor	1 year	\$ 2,560				
Any amount (third offense)	Misdemeanor	2 years	\$ 8,540					
Offenders who are chronic abusers of marijuana may be sent to rehab.								
Nebraska	<table border="1"> <thead> <tr> <th data-bbox="393 1035 1024 1106">Offense</th> <th data-bbox="1024 1035 1170 1106">Penalty</th> <th data-bbox="1170 1035 1284 1106">Incarceration</th> <th data-bbox="1284 1035 1424 1106">Max. Fine</th> </tr> </thead> </table>				Offense	Penalty	Incarceration	Max. Fine
	Offense	Penalty	Incarceration	Max. Fine				
	Possession							
	1 oz or less (first offense)	Infraction	N/A	\$ 300				
	1 oz or less (second offense)	Misdemeanor	5 days	\$ 500				
	1 oz or less (third offense)	Misdemeanor	7 days	\$ 500				
More than 1 oz - 1 lb	Misdemeanor	3 months	\$ 500					
More than 1 lb	Felony	2 years	\$ 10,000					
Missouri	<table border="1"> <thead> <tr> <th data-bbox="393 1476 1024 1547">Offense</th> <th data-bbox="1024 1476 1170 1547">Penalty</th> <th data-bbox="1170 1476 1284 1547">Incarceration</th> <th data-bbox="1284 1476 1424 1547">Max. Fine</th> </tr> </thead> </table>				Offense	Penalty	Incarceration	Max. Fine
	Offense	Penalty	Incarceration	Max. Fine				
Possession								
Up to 3 oz	No penalty	None	\$ 0					
Possession of more than 35g, but less than 30kg, has often, historically, been charged as intent to distribute.								

State	Cannabis Penalties			
Illinois	Offense	Penalty	Incarceration	Max. Fine
	Possession			
	30 g or less*	No Penalty	None	\$ 0
	More than 30 - 100 g (first offense)*	Misdemeanor	1 year	\$ 2,500
	More than 30 - 100 g (subsequent offense)*	Felony	1 - 3 years	\$ 25,000
	More than 100 - 500 g	Felony	1 - 3 years	\$ 25,000
	More than 500 - 2000 g	Felony	2 - 5 years	\$ 25,000
	More than 2000 - 5000 g	Felony	3 - 7 years	\$ 25,000
	More than 5000 g	Felony	4 - 15 years	\$ 25,000
* Illinois resident -- non-residents may possess up to 15 grams.				

Table 1: Comparison of Iowa's possession penalties to those of surrounding states (NORML 2025e).

While Iowa has focused on the criminalization of cannabis, other states have opted for decriminalization or legalization. By removing or replacing penalties for simple use and possession, decriminalization has been found to substantially reduce cannabis-related arrest rates (Gunadi and Shi 2023). Data compiled over the course of nearly two decades from all eleven states that implemented decriminalization during that time frame showed that this approach was associated with a 70% reduction in cannabis possession arrests for adults and a 40% reduction in cannabis possession arrests for youths (Gunadi and Shi 2023). Similar studies have concluded that decriminalization laws effectively reduce criminal offenses related to cannabis possession (Bailey 2021). It is important to note, though, that under decriminalization, arrests and incarceration do continue for the smaller fraction of offenses related to the *sale* and *distribution* of cannabis.

Research also shows that recreational cannabis legalization substantially reduces adult possession arrests, though it has little effect on juvenile arrests. One study of 31 states found that legalization reduced adult possession arrests by 40 percent in states that had already decriminalized cannabis and by 76 percent in states that had not (Gunadi and Shi 2022). However, the same study reports minimal changes in youth arrest rates. Supporting this distinction, Plunk et al. (2019) found that youth arrest rates declined in states that decriminalized

cannabis possession for all ages but did not decline in states that legalized adult use. Together, this evidence suggests that legalization primarily affects adult enforcement patterns while leaving youth arrests largely unchanged.

At the same time, research indicates that many arrest declines in legal states began before legalization took effect, likely reflecting shifting social norms rather than the policy change itself (Ali-Smith and West 2025). For example, Black arrest rates in several legal states began falling up to two years prior to legalization and continued afterward (Sheehan et al. 2021). This pattern contrasts with decriminalization states, where arrest rates did not decline until after policy adoption, suggesting a more direct causal effect (Sheehan et al. 2021). Although cannabis-related arrests remain far lower in legal states—sometimes eight times lower—because legalization removes possession penalties and creates regulated markets (ACLU 2020), the broader evidence suggests that legalization often coincides with preexisting declines in cannabis enforcement intensity rather than initiating those declines. Decriminalization, by contrast, tends to produce reductions where declines were not already occurring. For a state like Iowa, where arrest rates have not yet fallen due to broader social normalization, decriminalization may therefore represent a more targeted and effective reform than full legalization.

Measure of Justice and Equity #2: Effective Allocation of Criminal Justice Resources

Nationwide, the CJS allocates a significant portion of its resources to arresting, prosecuting, sentencing, and incarcerating people for cannabis-related offenses (Krishna 2025). While Iowa does not report the exact annual cost of cannabis enforcement, estimates from 2016 suggest the state spent \$59 million on cannabis prohibition that year (Miron 2018). Nebraska, which decriminalized cannabis possession in 1979, spent only \$31 million (Miron 2018). In Iowa, cannabis offenses account for 55% of all drug-related arrests, with 90% of these arrests being for simple possession. This figure suggests that the state is dedicating a significant amount of CJS resources to low-level offenses (ACLU of Iowa 2022). Based on other states' experiences with cannabis policy reform, Iowa could save an estimated \$10-30 million annually in enforcement, court, and incarceration expenses if it adopted these reform efforts (Good Iowa 2025).

By conserving resources, cannabis policy reform creates opportunities for the reallocation of funding and personnel towards other public safety efforts. Both decriminalization and

legalization create these opportunities, though in different ways. Decriminalization decreases CJS expenditures for low-level possession while maintaining enforcement for distribution and larger-scale offenses. It could therefore free up the resources currently used to arrest, prosecute, and incarcerate Iowans for minor cannabis-related offenses. While decriminalization alone would not automatically redirect these savings, Iowa could pair it with policy measures that explicitly reinvest freed resources into other public safety measures, which could help improve the state's rates of crime, drug use, and recidivism (Bryant 2023).

By eliminating criminal penalties for possession, cannabis legalization can also free criminal justice resources. In Oregon, legalization allowed police units to prioritize assault and other violent crime investigations (Wu et al. 2021), and similar improvements in clearance rates for violent and property crimes have been observed in Colorado and Washington (WSU 2018). Iowa, by contrast, convicted 5,043 individuals for cannabis possession in 2019—nearly 4,000 for first offenses—while clearing only 55 percent of violent crimes, 21 percent of property crimes, and 27 percent of rapes (MPP 2022; Table 2). While legalization does introduce new regulatory responsibilities, including licensing, compliance enforcement, and impaired driving monitoring, these costs would likely be lower for Iowa than the burden of continued prohibition (Edwards and McCray 2012). Taken together, the evidence suggests that legalization could reduce Iowa's overall criminal justice burden by shifting enforcement away from low-level possession and toward serious public safety threats, while creating fiscal space for reentry services, treatment-based diversion, and community-based alternatives to incarceration (Pew 2018).

Partial data, cannabis possession arrests in 2019 (UCR/FBI Crime Data Explorer)	4,946
Number of arrests for cannabis possession in 2018 (ACLU)	3,835
Racial disparities in arrests, 2018 (ACLU)	7.3x
Percent of violent crimes resulting in arrest, 2019 (UCR)	55%
Percent of property crimes resulting in arrest, 2019 (UCR)	21%
Number of untested rape kits	2,502

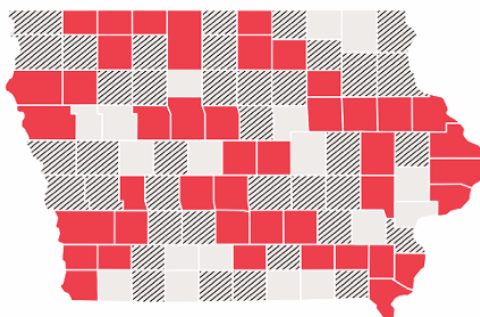
Table 2: Iowa cannabis convictions compared to other crimes in 2019 (MPP 2022)

Measure of Justice and Equity #3: Reduced Rates of Racial Disparities

Although Iowa has improved from the worst to the seventh-worst state in overall racial disparities within the CJS, it has made no comparable progress in reducing disparities specific to cannabis enforcement. Across multiple studies, Iowa ranks anywhere from the fifth-worst to *the* worst state for racial disparities in cannabis arrests (ACLU of Iowa 2020). In 2018, Black Iowans were 7.3 times more likely than white Iowans to be arrested for cannabis possession, nearly double the national average of 3.84 (ACLU of Iowa 2020). In some Iowa counties, this disparity was even more pronounced, with Black residents between 9.6 and 17.6 times more likely to be arrested (ACLU of Iowa 2020; Figure 2). These disparities cannot be explained by differences in cannabis use, since annual surveys from the Substance Abuse and Mental Health Services Administration consistently show similar usage rates among Black and white populations (ACLU of Iowa 2022). Even when arrests do not result in incarceration, they disproportionately harm communities of color by creating long-lasting criminal records that restrict access to employment, housing, child custody, education, and financial opportunities.

BY THE COUNTY

All counties with **racial disparities** above the national average (3.64x)



Counties with the largest racial disparities

Counties with a pop. of >30,000, a Black pop. of >1%, a data coverage of >50%, and at least 25 marijuana possession arrests are included.

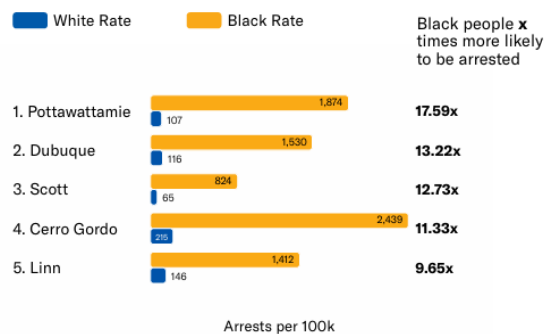


Figure 2: Racial disparity rates by county for cannabis possession (ACLU of Iowa 2020).

The same study that discovered a relationship between decriminalization and reduced arrest rates also found that the policy is associated with a 17% lower disparity in arrest rates

between Black and white adults (Gunadi and Shi 2022). Similar studies confirm that decriminalization is directly associated with reduced racial disparity in cannabis-related incarceration rates (Sheehan et al. 2021). This is likely because decriminalization directly reduces the main cause of cannabis-related disparities: possession charges and contact with law enforcement (arrests, searches, and detainments) for minor offenses. Though not all disparities disappear, removing the legal mechanism for disproportionate arrests significantly narrows the opportunities police have to impose biases.

Decriminalization is also a more targeted policy than legalization. Decriminalization directly relates to the CJS and how it interacts with cannabis, while legalization is more broadly focused on the economic and regulatory procedures associated with establishing an entirely new market. Because decriminalization more directly reduces criminal legal involvement for possession offenses, its implementation may create clearer opportunities for Iowa to adopt or expand automatic expungement for past low-level cannabis convictions. This is a crucial step in reducing the social consequences of uneven cannabis enforcement.

Legalization, on the other hand, is not directly associated with a decrease in cannabis-based racial disparities and may even exacerbate the issue. Studies show that Black people remain significantly more likely to be cited for cannabis offenses even in legal states (Dholakia 2021). Legalization also introduces new layers of enforcement through regulatory oversight, which still relies on discretionary policing. Without addressing the root causes of racial disparity within the CJS—historical and structural racism—these disparities can persist under a new system in which police discretion has not been eliminated, only shifted towards issues like unlicensed sale, possession above legal limits, public consumption, and impaired driving.

Furthermore, the benefits of the legal market are often unevenly distributed (Dholakia 2021). Legal cannabis distributors frequently set up shop in predominantly white neighborhoods, leaving the illicit market free to thrive in communities of color. This increases disparities, as people of color remain more likely to be penalized for engaging in the more proximal and convenient black market while white cannabis users can safely enjoy legal products. Engaging in the legal market as a seller or producer requires permits, fees, and clean records—criteria that tend to systematically exclude people of color. Indeed, a 2016 investigative report found that less than one percent of dispensary owners across the country were Black (Lewis 2016). While white

communities have been able to reap the economic benefits of legalization, Black and Latino Americans have been left open as gaps for the illicit market to fill.

Measure of Justice and Equity #4: Reduced Crime Rates

Any effort to reform cannabis policy in Iowa must consider its effects on overall crime rates to ensure that gains in justice and equity do not compromise public safety. Research finds no statistically significant relationship between drug imprisonment rates and key indicators of drug harm—including self-reported use, overdose deaths, and drug arrests—suggesting that strict enforcement regimes like Iowa’s do not deter drug misuse or distribution (Pew 2018). Consistent with this evidence, a 2025 systematic review finds that decriminalization and legalization are associated with substantial reductions in cannabis arrests across 17 North American studies (McCarthy et al. 2025).

Although critics argue that these declines simply reflect narrower enforcement, studies find no corresponding increases in violent or property crime, indicating that reduced criminalization does not undermine public safety (Wu et al. 2021; Harper and Jorgensen 2022; Mosteller 2023). Following the decriminalization of low-level drug possession in Oregon and Washington, for example, there were no significant changes in overall arrests, including non-drug arrests and arrests for violent crime (Wu et al. 2021). There are several potential reasons for this absence of an increase in crime, including reduced criminalization of low-risk individuals, fewer police-community conflicts, and decreased involvement with illicit markets.

Similar trends follow legalization, though research results are more mixed. A state-level analysis of data from 2009-2019 found that legalizing recreational cannabis in Colorado and Washington was *not* associated with changes in index crime rates (Harper and Jorgensen 2022). The study’s authors therefore argue that increased crime should not be a “primary concern” for states considering reform, and that policy discussions should instead focus on potential benefits such as harm reduction, tax revenue, and improved allocation of police resources. A policy brief from the Badger Institute reaches a similar conclusion, noting that most existing studies report no effect—or even modest reductions—in violent and property crime following legalization (Mosteller 2023).

However, research on dispensaries points to more localized concerns. Cannabis retailers may increase property crime, disorder, low-level offenses, and in some cases armed robberies in

surrounding neighborhoods, particularly in lower-income areas (Mosteller 2023; NPR 2022). These effects appear to be geographically limited and do not alter broader statewide patterns of legalization itself not increasing major crimes. One area where findings are more consistent concerns traffic safety: adult-use legalization is regularly associated with increases in traffic crashes and fatalities (Mosteller 2023). Taken together, these tradeoffs suggest that while legalization may improve some dimensions of public safety, it may worsen others.

Criminal Justice-Focused Alternatives

Iowa's criminalization of 92% of cannabis does not reduce incarceration rates, effectively allocate criminal justice resources, reduce racial disparities within the CJS, or reduce Iowa's overall crime rates. However, available data suggest that legalization may not be the most effective approach for improving justice and equity within Iowa's CJS. Decriminalization instead seems to be Iowa's most viable and cost-effective option. Indeed, as Ali-Smith and West put it in their 2025 study for the *Journal of Public and International Affairs*, the versatility of decriminalization as a policy offers more options for localities within conservative states to relieve the punitive burden of cannabis enforcement.

There are a few different approaches to decriminalization, each of which has a distinct effect on the measures of justice and equity outlined above (Kambath 2022). These are—

- Substitution: Replacing criminal sanctions with nonpunitive interventions like drug courts.
- De Facto Decriminalization: Informal policies that encourage police and prosecutors to refrain from enforcing specific criminal laws.
- Pure Decriminalization: Legislation enacted to strip the criminal sanction label attached to certain behaviors.
- Reclassification: Downgrading criminal sanction to a lower type of offense (e.g. from a felony to a citation).

Pure decriminalization and reclassification often occur together, as both typically reclassify cannabis offenses from criminal to civil violations. When paired with automatic expungement of prior possession convictions, this approach addresses both future enforcement and the lasting harms of past criminalization. Substantively, it's likely to reduce incarceration by eliminating criminal penalties for possession and use—offenses that account for the vast majority

of cannabis-related arrests in Iowa—while continuing to prosecute cannabis suppliers and producers. By narrowing the scope of criminal enforcement, decriminalization allows law enforcement and courts to focus on more serious offenses, leading to more efficient allocation of criminal justice resources and, in some cases, declines in non-cannabis-related crime (Wu et al. 2021). Because racial disparities in Iowa’s cannabis enforcement are most pronounced for possession and use, reclassification combined with expungement would directly target a primary driver of racial inequity while removing the long-term collateral consequences that can persist even after legal reform (ACLU of Iowa 2020). Finally, because decriminalization is not associated with increases in drug misuse or other drug-law violations, it offers a way to reduce cannabis-related arrests without increasing cannabis use (Pew 2018).

Of the four decriminalization approaches, reclassification offers the most effective means of achieving our goals for improved justice and equity within Iowa’s CJS. Substitution and de facto decriminalization are still associated with overpolicing and do not directly target the issue. Under a substitution approach, cannabis possession maintains the same criminal violation status, and police are still relied on to detect wrongdoing and use their discretion to defer individuals to harm-reduction interventions. These interventions can still result in incarceration if individuals fail to comply with the requirements of intervention programs (Kambath 2022). Similarly, de facto criminalization relies entirely on the discretion of prosecutors to choose how they engage with cannabis offenses, not addressing the underlying behaviors of police or patterns of arrest that create justice and equity issues in the first place.

Cannabis Policy from a Public Health Perspective

Introduction

The second criterion under which we’re evaluating Iowa’s current cannabis laws is public health. Before assessing how cannabis policy affects public health outcomes, though, it’s essential to understand the potential health risks and benefits associated with cannabis use, as well as how these effects manifest in Iowa.

Like any substance, cannabis use carries risks. However, cannabis is unique among commonly used recreational drugs in that it also has recognized therapeutic applications for certain medical conditions. Weighing these potential risks and benefits has long challenged public health researchers and healthcare providers. Table 3 provides a brief overview of the

documented positive and negative health effects of cannabis, drawing on evidence from the National Academies of Sciences, Engineering, and Medicine (NASEM), the Centers for Disease Control and Prevention (CDC), the National Institute on Drug Abuse (NIDA), and other public health literature. It's important to note that many of these findings are relatively recent or supported by less robust evidence than is typical for other health conditions. This uneven evidence base reflects longstanding barriers to cannabis research, one of which is discussed later in this section.

Category	Potential Benefits	Potential Consequences
Pain and Inflammation	Moderate evidence of reduced chronic pain, particularly for arthritis, multiple sclerosis, and cancer-related pain (NASEM 2017)	Long-term use may increase pain sensitivity through cannabis-induced hyperalgesia (Zhang-James et al. 2023)
Mental Health	Short-term relief of anxiety or PTSD symptoms at low doses (Stanciu 2021)	Frequent or high-dose use associated with anxiety, depression, and psychosis risk, especially among adolescents; may exacerbate existing mental illness (NASEM 2017)
Neurological Conditions	CBD effective for certain seizure disorders, including Dravet syndrome (Devinsky et al. 2017)	THC may impair cognition, memory, and attention, particularly in adolescents and heavy users (Volkow et al. 2014; CDC 2024; NIDA 2024)
Substance Use	Medical cannabis access associated with reduced opioid use among some patients (Bachhuber et al. 2014)	Cannabis Use Disorder develops in approximately 9–12% of users; withdrawal symptoms documented (NIDA 2024; Hasin et al. 2015)
Respiratory and Cardiovascular Health	Vaporized or oral formulations reduce combustion-related respiratory harms (Earleywine and Barnwell 2007); vasodilation may lower blood pressure acutely (Wagner et al. 2001)	Smoking cannabis linked to chronic bronchitis symptoms (NASEM 2017); increased heart rate and cardiovascular strain among older adults and those with heart disease (Mittleman et al. 2001)
Public Health and Safety	Medical cannabis laws associated with reductions in opioid overdose deaths in some studies (Bachhuber et al. 2014)	Increased risk of impaired driving and traffic accidents due to slowed reaction time and coordination (NASEM 2017; CDC 2024; Rogeberg and Elvik 2016)

Table 3: Potential health benefits and consequences of cannabis use.

In Iowa, data from the Iowa Department of Public Safety’s Office of Drug Control Policy (ODCP) indicate that cannabis is among the state’s most commonly used intoxicating and addictive substances (ODCP 2025). This prevalence is reflected in both substance use disorder treatment admissions and emergency department visits. In 2023, Iowa recorded more than 7,000 cannabis-related emergency department visits (Figure 3), and 17.7 percent of all substance-use treatment admissions that year identified cannabis as the primary substance of abuse (ODCP 2025). Together, these figures underscore Iowa’s need for accessible treatment options for cannabis use disorder (CUD) and for addressing the broader range of cannabis-related health concerns discussed above.

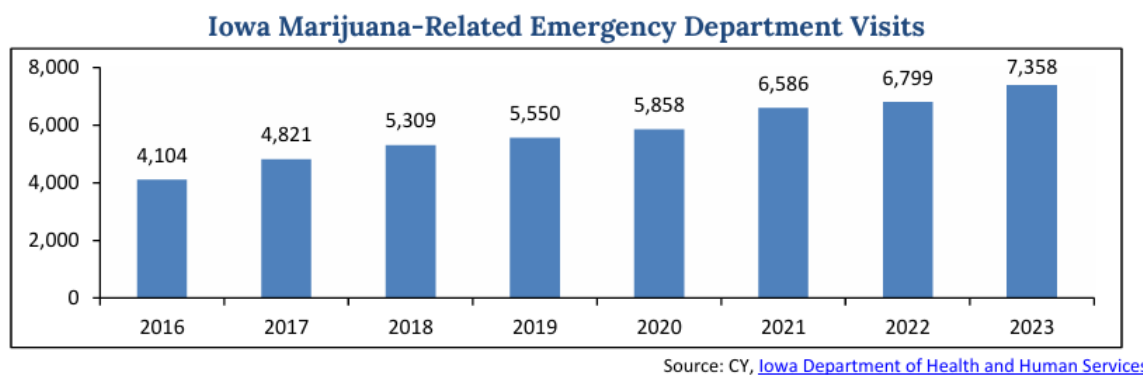


Figure 3: Cannabis-related ED visits in Iowa (ODCP 2025).

Data from the ODCP also highlight a concerning public health trend related to cannabis: the THC potency of cannabis products—both regulated and unregulated—has increased dramatically in the United States over the past several decades (Figure 4). Higher-THC products carry distinct health risks, including increased likelihood of developing schizophrenia, bipolar disorder, depression, anxiety, and psychotic symptoms such as paranoia and hallucinations (Blackman 2023). A 2022 study further found a significant correlation between the density of cannabis dispensaries in a given area and rates of psychosis-related emergency department visits (Wang et al. 2022). In addition, the risk of developing cannabis use disorder is closely linked to THC concentration, raising concerns that continued increases in potency may lead to higher rates of addiction in the future (Blackman 2023).

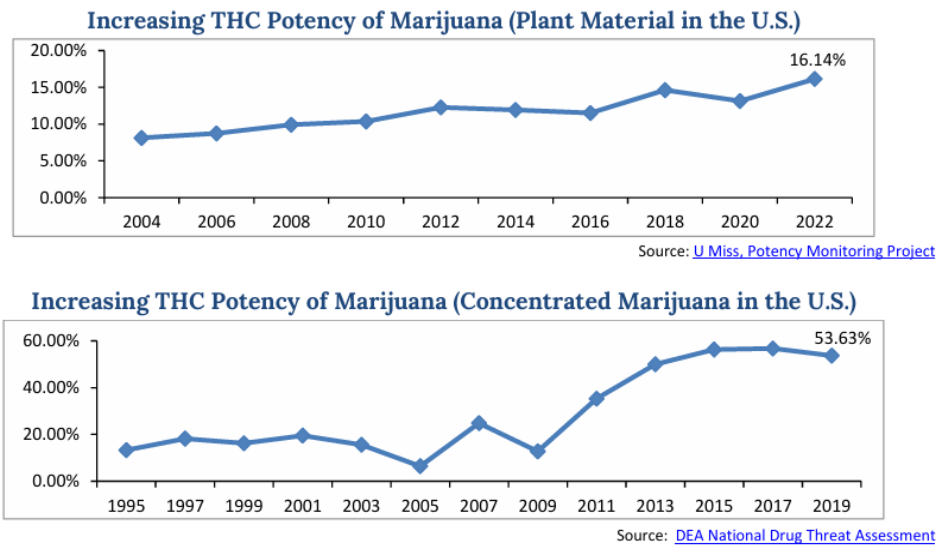


Figure 4: Increasing THC potency in marijuana (ODCP 2025).

We use three sub-criteria to evaluate how well Iowa’s cannabis policies and potential alternatives promote public health. They are—

1. Restrained unregulated market: While all cannabis comes with health risks, unregulated products far surpass regulated ones in terms of potential danger (Eykelbosh 2021) .
2. Expanded healthcare access: Iowa needs accessible treatment options for cannabis-related health issues, and it needs its residents to feel comfortable utilizing them.
3. Reduced cannabis-based incarceration: Different cannabis policies have the potential to exacerbate or alleviate the health consequences of incarceration, as well as provide alternatives to incarceration that are more effective at advancing public health.

Guiding Question: How do Cannabis Laws Impact Rates of Use?

While it may seem counterintuitive to support cannabis policy reform given the drug’s potential health risks, research reveals that criminalization does little to reduce cannabis use (Stanford Network on Addiction Policy; Transform 2023). Iowa illustrates this clearly; despite living in a heavily restricted state, Iowans continue to use cannabis at comparable rates. Evidence also shows that decriminalization is not associated with higher rates of cannabis use, and although some studies find higher use in legal states, much of this increase predates legalization

and reflects pre-existing trends (Dryden 2018; Farrelly et al. 2023). These findings show that restrictive approaches are ineffective at reducing use, and therefore ineffective at curbing use-related health harms. In contrast, decriminalization and legalization create the conditions for states to address health risks, while not disproportionately increasing use. In restrictive or decriminalized states, most users obtain cannabis from the unregulated market, legal loopholes like Delta-8 or THCA, or by traveling to legal states (cannabis tourism). Of these, the unregulated market poses the most substantial threat to public health.

Measure of Public Health #1: Unregulated Markets

While general cannabis use cannot be eliminated via policy, unregulated use can and has been addressed. The health risks of illicit use are rife. Unregulated products sold in the “black market” may contain contaminants like pesticides, microbes, and heavy metals (Dryburgh 2018). That being said, worries about fentanyl in cannabis are currently unfounded, as there have been no verified instances of fentanyl-laced products (New York State Department of Health 2024). Nevertheless, unregulated products can cause unpredictable side effects due to the over- or under-representation of THC or CBD levels on the product label; without laboratory analysis, the actual percentage of THC or CBD in each product cannot be determined (Eykelbosh 2020). Inexperienced users of highly potent cannabis concentrates may unintentionally consume large amounts of THC and end up experiencing acute adverse effects such as paranoia, panic attacks, and an elevated risk of longer-term harms including a greater likelihood of developing psychotic disorders. (Donohue 2022).

Despite the best efforts of restrictive states, criminalization does not eliminate the presence of an unregulated market. Reports demonstrate that people in restricted states as well as legal states have access to a “thriving” unregulated market (Mann 2025). Data from the Coalition for Cannabis Policy, Education, and Regulation (Figure 5) predicted that over 10 billion grams of cannabis would be accessed by American consumers from the illicit market in 2023. Moreover, the amount of illicit cannabis accessed from states without comprehensive adult-use laws (like Iowa) was estimated to exceed the amount accessed in adult-use states by approximately 2 billion grams. Like with alcohol prohibition, strict restriction of cannabis has not been successful in tampering a thriving illicit market.

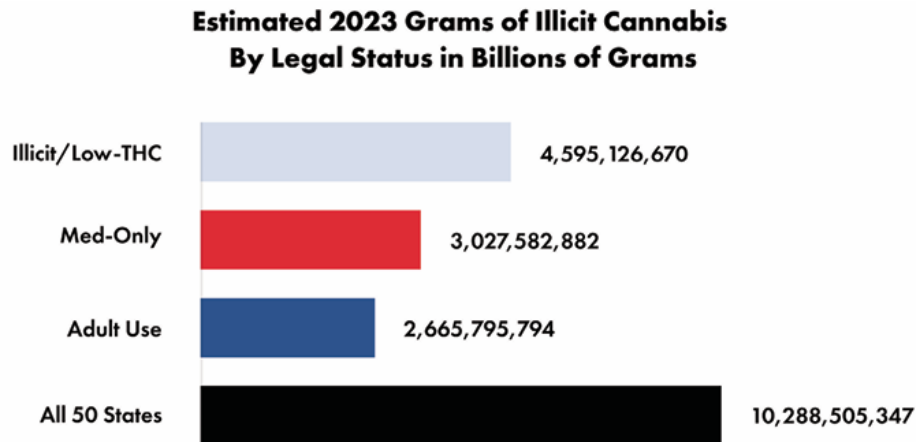


Figure 5: Total amount of illicit cannabis (CPEAR 2023).

Restricted states aren't the only ones battling an unregulated market. Data shows that in decriminalized states and legal states, the unregulated market continues to reach significant amounts of consumers (Mann 2025). Furthermore, decriminalization and legalization may even expand the unregulated market if other regulatory safeguards are not implemented (Miron 2023; Auriol et al. 2023). Under decriminalization, though, individuals are less fearful of being prosecuted for using cannabis, there remains no legal source for obtaining it. Cannabis users therefore only have two choices: travel to a legal state to purchase the drug, or purchase it from the unregulated market.

Legal states face different obstacles restraining the unregulated market. After legalization, states tend to create regulated markets that are too expensive, highly taxed, and limited by either location, licensing, or burdensome regulatory standards—issues that the black market does not face (Auriol et al. 2023). Users often opt for cheaper, more convenient, less regulated products from illicit markets, as they still reap the benefit of not being prosecuted for possession. While legalization perhaps has more potential than decriminalization to shrink the unregulated market by creating a legal alternative, the imposition of overly-restrictive or inequitable regulation and pricing standards can leave the illicit market to fill those gaps.

Measure of Public Health #2: Access to Healthcare

Although policy alone cannot eliminate the need for medical treatment of cannabis-related health issues, it can close critical gaps in access to care. Effective treatment for cannabis-

related conditions is essential to public health, just as it is for any other type of substance abuse. Many patients with cannabis use disorder require individualized, long-term care involving inpatient or outpatient therapies (Cleveland Clinic 2024). Ensuring that patients and providers have the resources necessary to manage this condition is therefore vital. Expanded healthcare access also facilitates research on cannabis' health effects and treatment strategies, strengthening clinical decision-making and reducing the inconsistent, often poorer outcomes that stem from limited evidence and persistent stigma (King et al. 2024).

In restrictive states, however, barriers such as fear of legal consequences, provider disapproval, and lack of reliable information discourage many people from seeking care (Ryan et al. 2021). For example, one study found that female cannabis users—especially women of color—may avoid prenatal care to evade stigma or potential legal consequences (e.g. loss of custody) putting both themselves and their unborn children at risk (NASEM 2024). Experts have also noted an alarming increase in cannabis use during pregnancy to manage morning sickness, fueled in part by the misconception the plant-based nature of cannabis makes it harmless (Blackman 2023). This illustrates a broader problem: harmful misconceptions about cannabis that could be addressed through open, nonjudgmental conversations with healthcare providers. These obstacles are not limited to expectant mothers. Anyone who already faces barriers in the healthcare system (such as people of color or formerly incarcerated individuals) may find those challenges magnified when seeking cannabis-related treatment in restrictive policy environments.

Adding to these systemic barriers is the pervasive impact of stigma. In a 2024 study, only 57% of participants voluntarily disclosed cannabis use, citing fear of stigma or legal consequences as well as uncertainty about whether disclosure was clinically relevant (King et al. 2024). This nondisclosure produces incomplete medical records and limits opportunities for providers to offer harm-reduction guidance. It also carries significant medical risks, including harmful drug interactions, poor anesthesia responses, higher pain-medication requirements, and worsened underlying conditions (King et al. 2024). These patterns reinforce one another: when cannabis use goes unreported, policymakers and health systems underestimate the true demand for treatment, slowing efforts to expand access and improve care.

A major contributor to stigma is widespread gaps in provider knowledge. Studies show that many healthcare professionals lack training on the endocannabinoid system, the benefits and

risks of cannabis, and how to discuss cannabis use with patients (Ronne et al. 2021). These knowledge deficits impair clinical decision-making, as providers rely more on personal attitudes—which tend to be more negative than patients’—rather than evidence-based information (King et al. 2024). Research consistently finds that greater provider knowledge is associated with more positive perceptions of cannabis (King et al. 2024). Nevertheless, gaps persist. In the 2024 study, only 15% of providers initiated conversations about cannabis use (King et al. 2024).

This problem is not solely attributable to providers, however. Cannabis prohibition has severely constrained research, leaving clinicians with limited evidence-based guidance. The research gap is well-documented: Yale School of Medicine identifies older adults, pregnancy, adolescent brain development, mental health, and driving safety all as areas with great need for further cannabis-related study (Blackman 2023). Although federal Schedule I status remains the primary barrier to research, states can still help close the funding gap through research agendas, state-sponsored studies, or partnerships with academic institutions (Balla et al. 2025). Notably, however, no states with policies as restrictive as Iowa’s have established mechanisms to fund cannabis research, underscoring the need for policy reform before research support can be meaningfully expanded (Balla et al. 2025).

Evidence on decriminalization’s impact on access to healthcare is limited, since decriminalization primarily targets the criminal justice system rather than healthcare. Legalization, by contrast, is associated with higher rates of cannabis-related healthcare utilization (Alam et al. 2025). This rise likely stems from a combination of increased cannabis use, greater patient willingness to seek care, and enhanced provider capacity. Legalization removes the threat of prosecution, making patients more comfortable disclosing their cannabis use (King et al. 2024). It can also facilitate research and clinical trials to better understand cannabis’ risks and benefits. However, legalization does not automatically generate research support. Of the 38 states that have legalized cannabis in some form, only 17 have enacted legislation to fund cannabis research (Balla et al. 2025). Such research is essential for improving provider education and reducing stigma, which in turn enables better patient care. While legalization and broader cultural acceptance are associated with reduced stigma over time, societal acceptance alone cannot eliminate fears of judgment in healthcare settings (King et al. 2024). Policy interventions remain necessary to remove these barriers and ensure equitable access to care.

Measure of Public Health #3: Cannabis-Based Incarceration

Iowa's current approach to cannabis directly causes high incarceration relative to the state's population. The health consequences of incarceration are so well-documented, especially for drug offenders, that incarceration has been called a public health crisis (Dholakia 2025). Compared to the general population, incarcerated individuals experience higher rates of chronic physical and mental health conditions. This includes asthma, hepatitis, HIV/AIDS, cardiovascular disease, depression, anxiety, substance use disorders, post-traumatic stress disorder, and suicidal ideation (Dholakia 2025). The consequences don't stop at the incarcerated individual, though. Incarceration also hurts the health of the families and communities of incarcerated individuals (Dholakia 2025).

The health consequences of cannabis enforcement even affect individuals who avoid incarceration. Drug-related arrests have such negative health consequences for youth—including long-term effects like lost scholarship and grant opportunities, confiscated drivers' licenses, and trouble finding employment and housing—that many public health organizations, including the American Academy of Pediatrics, have announced support for cannabis decriminalization (Dryden 2018; Gunadi and Shi 2022). The collateral sanctions associated with having a possession arrest on one's record can negatively impact one's health for the rest of their life. These consequences include restrained ability to get a job or housing, loss of government benefits, and social stigma. These risks are especially strong for communities of color, who already face increased risk of cannabis-related prosecution (ACLU 2020).

Cannabis policy also impacts a state's capacity to implement rehabilitation-based alternatives to incarceration. As previously established, because Iowa currently devotes so many resources to punitive cannabis enforcement, it has limited ability to invest in these more effective public health strategies. The public health benefits of rehabilitation—as well as cost-effectiveness—are well-documented. According to a 2024 NIDA study, fewer than 20 percent of incarcerated people receive treatment for substance abuse disorders, including CUD. Those who remain untreated are far more likely to relapse or return to criminal behavior upon release, posing ongoing risks to public health and safety (Sunrise Recovery 2024).

Research also shows that treatment-based alternatives can reduce the spread of infectious diseases such as HIV, which disproportionately affect incarcerated populations, and can mitigate

risks of overdose, mental health deterioration, and relapse (Sunrise Recovery 2024). Many states have adopted effective rehabilitation-focused alternatives—including diversion, harm-reduction strategies in law enforcement, expanded probation and parole, drug courts, individualized treatment, and evidence-based community supervision—which consistently outperform incarceration in reducing drug misuse and improving public health and safety (Pew 2018).

Evaluating decriminalization and legalization through the lenses of incarceration rates, collateral health consequences of incarceration, and opportunities for rehabilitation, it becomes clear that there are advantages and tradeoffs to each approach. Decriminalization substantially reduces arrests and keeps people out of jails and prisons—arguably more effectively than legalization would in Iowa’s current climate—thereby limiting the well-documented health harms associated with incarceration. This is also why the American Academy of Pediatrics supports decriminalization and not legalization: decriminalization produces the largest reductions in youth arrests, more effectively limiting the negative health and developmental consequences associated with these arrests. Expunging records for possession-related offenses (which though not an intrinsic part of decriminalization, often accompanies the practice) further reduces the collateral health sanctions associated with a criminal record.

However, when it comes to generating sustainable resources for rehabilitation and treatment alternatives, legalization offers the most promising path forward. As discussed previously, decriminalization frees law-enforcement capacity but does not create new revenue, and legalization shifts criminal justice resources towards regulating the market, rather than producing surplus funding. As a result, rehabilitative alternatives under either model require funding streams outside of the existing criminal justice budget. Legalization carries the opportunity to provide such a source by generating tax revenue from the regulated cannabis market.

Public Health-Focused Alternatives

Iowa’s current approach to cannabis does not eliminate the unregulated market, promote access to healthcare, or reduce the incarceration-related public health crisis. Decriminalization, while reducing some legal penalties, does not allow the state to create a regulated cannabis market with products that are safely cultivated, tested, and sold. As a result, it falls short of

addressing public health needs and does little to generate revenue that could fund related programs.

Legalization has the potential to increase overall cannabis use, which may lead to more cannabis-related health issues. However, most of this increase involves individuals who would have used cannabis anyway, meaning legalization primarily shifts consumption from the unregulated market to a safer, regulated one. Proper regulation ensures product safety, reduces health risks, and limits the growth of illicit sales, while poorly regulated legalization could inadvertently expand the unregulated market.

Beyond usage patterns, legalization would improve access to cannabis-related healthcare. By reducing fear of legal consequences, patients are more likely to seek care, and physicians gain opportunities for research, education, and the development of more effective treatments. This increased research and education can also help reduce the medical stigma surrounding cannabis, which is a major barrier preventing some users from seeking treatment for related issues.

Finally, legalization would create significant tax revenue that could support public health and rehabilitative programs. While it may not reduce incarceration rates as much as decriminalization, the funds generated from legal cannabis sales could provide a sustainable source of revenue for programs addressing substance use, public health initiatives, and community support services.

Similar to decriminalization, there are many different policy approaches to legalization. Based on the above findings, the most effective legalization model from a public health perspective is one that incorporates—

- Predatory/eviction pricing: Designed to “evict” the unregulated market and shift consumers over to legal, safer cannabis by (1) commercializing high quality products, (2) setting the price of legal cannabis *at or below* the black-market price, and (3) imposing moderate regulations and oversight on the legal market.
- Support for cannabis research: Explicit mechanisms—both monetary and non-monetary—to facilitate studies on cannabis use, health effects, and treatment strategies.
- Revenue allocation for restorative measures: Specific provisions directing post-legalization tax revenue toward rehabilitative alternatives to incarceration and automatic expungement of prior cannabis-related convictions.

Cannabis Policy from an Economic Standpoint

Introduction

The third criterion we're using to evaluate Iowa's current cannabis policy and its potential alternatives is economic impact. Specifically, we want to assess whether these policies maximize economic growth, generate state revenue, and support a regulated cannabis market. Iowa currently collects revenue from medical cannabis and low-THC products, but its restrictive policy framework limits the overall potential of the market. Expanding cannabis policy through decriminalization or legalization could stimulate business development, increase consumer participation, and generate additional revenue for the state budget.

To evaluate these outcomes, we've applied three sub-criteria as analytical tools for assessing Iowa's cannabis policies—

1. State regulatory impacts: This sub-criterion examines how Iowa's cannabis laws shape product availability, business activity, and manufacturing, particularly through regulations governing low-THC products. Current restrictions, including HF 2605, limit what companies can produce and sell, constrain innovation, and may drive businesses to leave the state. Alternative policies, whether decriminalization or legalization, could alter these regulatory dynamics, expand in-state production, and create a more robust business environment.
2. Consumer behavior: This sub-criterion evaluates how current policies influence how and where Iowans purchase cannabis. Though decriminalization may partially reduce out-of-state cannabis tourism, legalization has the potential to shift more consumption to a regulated, legal market, capturing the spending that's currently leaving Iowa. Changes in consumer behavior also impact the size of the unregulated market, product safety, and access to cannabis for both medical and recreational users.
3. Revenue use: This sub-criterion considers how existing and potential cannabis revenues could be allocated within the state budget and how taxation structures affect consumer pricing. Iowa currently generates limited revenue from medical and low-THC cannabis sales. Expanding legal access to cannabis could create new taxation streams, fund public health and rehabilitation programs, and support broader state services. Structuring taxes based on THC content or potency could further incentivize safer production and consumption while maximizing revenue.

Measure of Economic Impact #1: State Regulations

Iowa's restrictive cannabis laws have significantly affected the sale of low-THC products, particularly following recent legislation. In 2024, Governor Kim Reynolds signed HF 2605, which imposed strict limits on the amount of THC allowed in beverages. Under this law, each serving may contain no more than 4 milligrams of THC, and each container may not exceed 10 milligrams. HF 2605 has prompted several companies to sue the state (Opsahl 2024), arguing that the law creates a vague definition of a THC serving and imposes additional unconstitutional restrictions on the 2018 Farm Bill (Parker 2025), which defined hemp as cannabis containing no more than 0.3 percent THC by dry weight (GovInfo 2018).

As a result of HF 2605, Iowa's low-THC product manufacturers have had to alter their product lines, with some reporting up to \$200,000 in losses (Kauffman 2024). Many out-of-state cannabis producers are leaving Iowa, reducing the options available for in-state retailers (Whitlatch 2024). These restrictions have produced unintended consequences for consumers and businesses alike: businesses face financial harm, consumers lose access to products they use regularly, and Iowa residents may increasingly purchase cannabis from neighboring states, shifting economic activity away from Iowa.

Measure of Economic Impact #2: Consumer Behavior

Evidence shows that cannabis use remains high in Iowa, despite legal barriers. A study by Consumer Research on Cannabis, for example, found that 16.2% of adults age 18+ in Des Moines reported using or purchasing cannabis in the past month (Sillick 2025). At the same time, state filings in Illinois show that out-of-state residents account for 30% of recreational marijuana sales (Peterson 2023). These high figures indicate that Iowa's restrictive cannabis laws are failing to meet resident demand, pushing many Iowans to neighboring states with less restrictive policies and diverting revenue from local businesses.

This lost revenue hurts the state budget, as well. A study comparing Indiana, which maintains strict cannabis laws, with Michigan, which has legalized recreational use, found that Michigan generated over \$2 billion in cannabis-related revenue, while Indiana relied on fines and penalties and earned far less (Boylan 2023). The study concluded that Indiana would benefit more from legalization and the application of excise taxes to fund schools and public works. This

example highlights that criminalization not only limits revenue but also drives residents to purchase cannabis elsewhere—a pattern directly relevant to Iowa.

Overall, Iowa’s current cannabis policies reduce economic opportunity by limiting in-state business growth and encouraging out-of-state purchases. Consumer behavior indicates that demand for cannabis persists regardless of legal restrictions, suggesting that a less restrictive, regulated market could allow Iowa to capture more economic activity, increase tax revenue, and support local businesses.

Measure of Economic Impact #3: Revenue Use

Though Iowa currently collects revenue from certain cannabis products, debate remains over whether the state should take additional steps to expand marijuana-related revenue streams. Under current law, legal cannabis sales are limited to medical marijuana and low-THC products, restricting the overall economic impact of the market. This raises the question of whether Iowa is missing an opportunity to leverage existing market demand to support public funding priorities. Additional cannabis revenues could help finance essential state services, including education, infrastructure, healthcare, and substance abuse treatment programs.

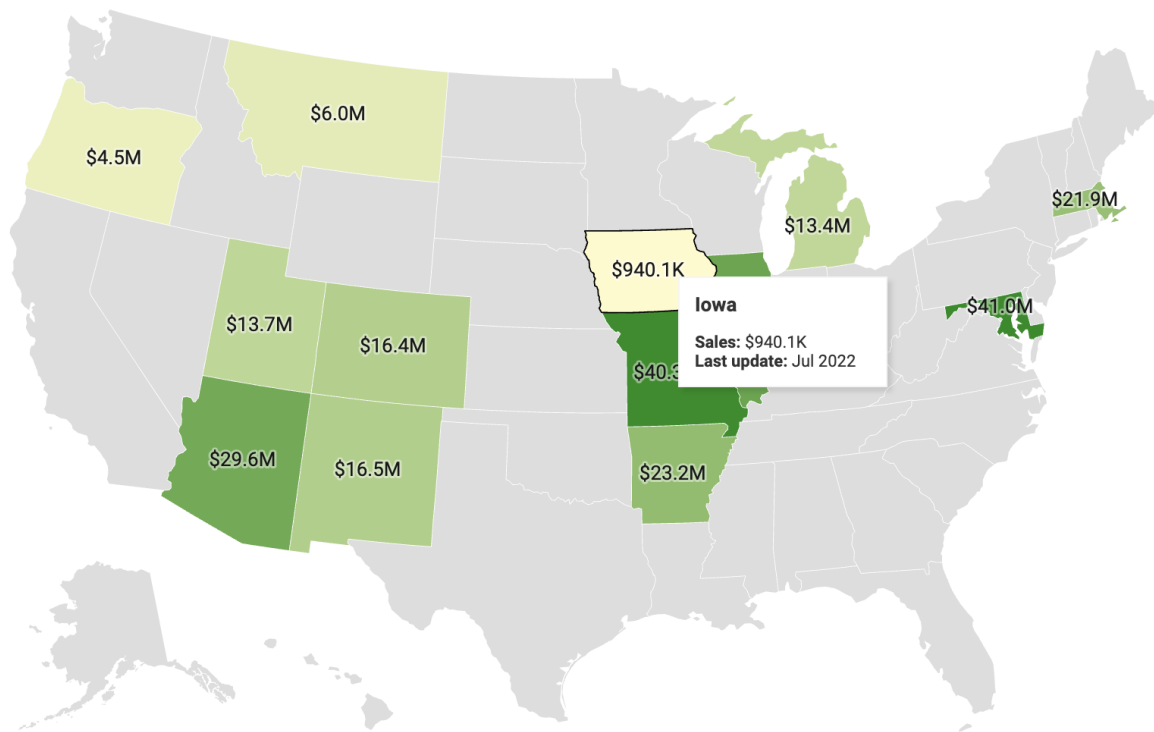
Estimates from the Tax Foundation suggest that Iowa could generate up to \$83 million annually through the legalization of recreational marijuana (Daly 2025; Figure 6). While this would not fully resolve state budget challenges, it represents a significant revenue source that could reduce reliance on other taxes to fund public works. Limiting cannabis sales to medical programs and low-THC products constrains this potential. For example, former state deputy treasurer Mike Tramonita estimates that Iowa would need \$40 million to \$50 million in additional revenue to fund private school voucher programs—amounts that current medical programs are unlikely to generate (Sillick 2025).

State	Potential marijuana tax revenue
Alabama	\$86,622,418
Arkansas	\$63,215,571
Florida	\$454,981,259
Georgia	\$250,470,344
Hawaii	\$28,361,581
Idaho	\$38,783,607
Indiana	\$172,219,718
Iowa	\$83,888,771
Kansas	\$74,833,568
Kentucky	\$92,260,563
Louisiana	\$116,350,821
Mississippi	\$60,481,925
Nebraska	\$37,245,931
New Hampshire	\$36,733,372
North Carolina	\$197,164,241

Figure 6: Potential marijuana tax revenue by state (Daly 2025).

While potential revenues are significant, it's also important to compare them to current figures. As of 2022, monthly medical marijuana sales in Iowa totaled approximately \$940,100 (Figure 7), with the state accounting for just 0.96% of the national consumable hemp product market (Acton 2024). This highlights how little Iowa is currently generating compared to states like Michigan. Iowa's revenue comes primarily from consumable and liquid low-THC products and medical dispensary sales, including products such as gummies, carbonated cannabis beverages, and cannabis chocolates. Nationally, combined U.S. medical and recreational cannabis sales could reach \$33.6 billion by the end of 2023 (MJBizDaily 2023), largely driven by the growth of adult-use markets. Under current laws, Iowa cannot capture a meaningful share of this market, as restrictions fail to incentivize residents to purchase locally.

Monthly medical marijuana sales by state



Latest published data where available.

Map: © 2022 MJBiz, a division of Emerald X, LLC • Source: State agencies, Headset • Created with [Datawrapper](#)

Figure 7: Medical marijuana sales by state (MJBizDaily 2023).

In conclusion, Iowa's current cannabis revenues demonstrate the viability of cannabis as a source of public funding. While the state already benefits from medical and low-THC product sales, broader legalization could substantially increase revenues and enable Iowa to allocate more resources toward public goods. Evaluating cannabis policy through the lens of revenue generation underscores the trade-off between maintaining restrictive regulations and adopting a policy to generate revenues and spur economic growth.

Economic Impact-Focused Alternatives

Iowa's current cannabis laws leave significant potential revenue untapped. Based on the findings above, policies that combine decriminalization and legalization could substantially improve the state's approach to cannabis. The following recommendations aim to address current law while prioritizing both economic and public safety considerations.

From a decriminalization perspective, reducing penalties for possession could limit some of the financial and social costs of incarceration. However, decriminalization alone is unlikely to fully eliminate the illicit market, and residents may continue traveling out of state to purchase cannabis. Moreover, decriminalization does not generate new revenue for the state, meaning that costs associated with law enforcement, court proceedings, probation supervision, and incarceration for possession above the decriminalized threshold or repeat offenses would remain. Without the offsetting funds that could come from legalized and taxed cannabis sales, the state would still bear substantial expenses, making decriminalization a limited solution from both a fiscal and economic perspective.

A legalization approach, on the other hand, could expand legal access to cannabis while generating significant tax revenue. Previous legislation in Iowa (90th General Assembly 2023) explored the sale, production, and taxation of standard cannabis products, indicating growing acceptance of legal cannabis in the state. By implementing a high tax on marijuana—potentially up to 37%, similar to Washington’s model (Tax Policy Center 2024)—Iowa could adopt a THC-scaled excise tax for legal products. This would reduce out-of-state purchases, encourage local consumption, and even attract cannabis tourism. Trade-offs include the risk that high taxes could push some consumers back to the illicit market and the administrative challenge of categorizing products into tax brackets, especially as THC content has risen rapidly from 4% to 12% in recent years (Gomez 2025). Additionally, legalization in neighboring states may reduce demand among Iowa consumers who already have established purchasing habits.

Another pathway for revenue generation is a scaled excise tax on THC products. For example, a bill introduced on March 21, 2024, SF 2417, proposed a 25% excise tax on low-THC products sold or purchased at bars or restaurants, with revenues directed to the general fund (Acton 2025). While the bill died in committee, a revised framework could scale taxes according to THC content, incentivizing companies to limit potency while allowing higher-THC products to remain on the market. For instance, products with 4 mg of THC could be taxed at a lower rate, with taxes increasing as potency rises. Canada offers a similar model, taxing cannabis products based on THC content (Hall 2020). This approach balances public safety, business responsibility, and revenue generation while restoring flexibility for producers and consumers.

Recommendations

Introduction

Each of the previous sections identified specific alternatives to Iowa’s current cannabis laws, drawing on evidence from other states that have implemented comparable reforms. The following discussion compares these proposed alternatives across the three evaluation criteria—justice and equity, public health, and economic impact—before presenting a final, evidence-based recommendation tailored to Iowa’s unique political and social landscape.

The criminal justice proposal recommends a reclassification-based decriminalization approach coupled with automatic record expungement. This reform would reduce incarceration and racial disparities by replacing criminal penalties for possession of small amounts of cannabis with civil infractions, while clearing the records of those previously convicted. The public health proposal recommends a legalization approach that uses eviction pricing and sanctions against illicit trade to ensure that the legal market can successfully compete with the unregulated one. Like the criminal justice proposal, it includes automatic expungement, along with an excise tax on the legal market used to fund healthcare clinics, harm-reduction programs, and rehabilitative services. The economic proposal recommends re-raising the THC cap established under HF 2605 and introducing excise taxes scaled to the amount of THC in each product. This approach aims to strengthen Iowa’s existing low-THC market, restore lost revenue, and create a more flexible taxation framework.

Justice and Equity

The criminal justice proposal most directly targets Iowa’s high incarceration rates and pronounced racial disparities. Currently, any possession of cannabis in Iowa constitutes a misdemeanor and can result in up to six months in jail or a \$1,000 fine (Figure 8). Under a reclassification-based decriminalization model, these offenses would be relabeled as civil infractions and subject to substantially reduced penalties. For guidance, Iowa lawmakers could look to neighboring Nebraska (Figure 9), which permits possession of up to 28 grams, or one ounce, with limited penalties.

Offense	Penalty	Incarceration	Max. Fine
Possession			
Any amount (first offense)	Misdemeanor	6 months	\$ 1,000
Any amount (second offense)	Misdemeanor	1 year	\$ 2,560
Any amount (third offense)	Misdemeanor	2 years	\$ 8,540

Offenders who are chronic abusers of marijuana may be sent to rehab.

Figure 8: Current penalties for cannabis possession in Iowa (NORML 2025c).

Offense	Penalty	Incarceration	Max. Fine
Possession			
1 oz or less (first offense)	Infraction	N/A	\$ 300
1 oz or less (second offense)	Misdemeanor	5 days	\$ 500
1 oz or less (third offense)	Misdemeanor	7 days	\$ 500
More than 1 oz - 1 lb	Misdemeanor	3 months	\$ 500
More than 1 lb	Felony	2 years	\$ 10,000

Figure 9: Current penalties for cannabis possession in Nebraska (NORML 2025d)

Raising Iowa’s possession threshold from any amount to one ounce—more than most cannabis users possess at a single time—would significantly reduce cannabis-related arrests and prosecutions (Kennedy 2019). This reduction would, in turn, free criminal justice resources for addressing more serious offenses (Wu et al. 2021). Agencies could redirect these resources toward community investments and officer training, including de-escalation tactics, mental health crisis response, and anti-bias training, all of which have the potential to reduce both crime rates and racial disparities within the criminal justice system. Because the most pronounced cannabis-related disparities in Iowa stem from possession arrests, reducing or eliminating criminal penalties for possession would directly address a primary driver of racial inequity (ACLU of Iowa 2022). To fully address the harms of past enforcement, the criminal justice

proposal also includes automatic record expungement for prior possession convictions. Joining the twelve states that have already adopted automatic expungement would help rectify the long-term social and economic consequences of cannabis criminalization, particularly for communities of color (NORML 2025a).

The public health proposal would also reduce incarceration by legalizing the possession and sale of cannabis. However, because it would require extensive regulatory oversight, law enforcement resources could be redirected toward enforcement of new commercial regulations rather than away from low-level cannabis-related issues entirely. In other words, while this approach maintains the benefit of automatic expungement, it could introduce new enforcement burdens that offset some of its gains. The economic proposal, by contrast, does not directly address incarceration or racial disparities, but it could complement either reform as a fiscal measure that supports justice reinvestment through new revenue streams.

Public Health

While the criminal justice proposal's suggestion of reclassification and expungement would reduce the harms associated with incarceration, most cannabis products would remain illegal. This means that many consumers seeking convenient higher-THC options would still rely on untested and potentially unsafe products from the illicit market. However, cannabis users in Iowa would continue to have access to the limited range of low-THC, state-regulated products that are already legal under Iowa law. These products—primarily consumable hemp and cannabidiol (CBD) formulations—are subject to quality and safety standards that protect consumers from some of the risks of the unregulated market (Iowa Legislature, 2025). As such, the criminal justice proposal would preserve a baseline of public health protection, though it would not expand access to safer, higher-THC alternatives.

The public health proposal performs best in this category, since it would use eviction pricing to undermine the illicit market. Critics of legalization often argue that excise taxes can drive consumers toward the illicit market by raising legal prices above those of unregulated alternatives. Eviction pricing is designed specifically to prevent this outcome. Rather than maximizing tax revenue in the short term, eviction pricing prioritizes setting legal cannabis prices low enough to outcompete illicit sellers while still covering regulatory and public health costs. In the Iowa context, this could involve initially modest excise tax rates, limits on local tax

add-ons, and state oversight to prevent excessive price inflation during market rollout. As the legal market stabilizes and illicit demand declines, tax rates could be adjusted incrementally to support treatment and harm-reduction programs without pushing consumers back into the unregulated market (Auriol et al. 2023). By sequencing taxation in this way, Iowa could reduce exposure to unsafe products while maintaining the public health benefits of a regulated system.

The economic proposal's plan to re-raise the THC cap could increase the availability of higher-potency products, potentially heightening risks of overuse and dependence (Backman, 2023). However, its inclusion of a scaled excise tax based on THC potency could help mitigate these risks by disincentivizing excessively potent products while encouraging the sale of lower-THC, safer alternatives. This model would promote responsible use while generating revenue for public health initiatives, allowing Iowa to balance market expansion with consumer safety. When paired with appropriate reinvestment of tax revenue, this approach could strengthen public health outcomes without requiring full legalization.

Economic Impact

Economically, each proposal offers distinct advantages and tradeoffs. The criminal justice proposal would lead to significant savings in enforcement and incarceration costs but would not generate substantial new revenue. The public health proposal, if implemented with moderate taxation and regulation, could yield the greatest long-term economic benefits by establishing a fully legal market that undercuts illicit sales while generating sustained tax revenue for the state. However, building such a regulatory framework would require extensive new infrastructure, oversight, and enforcement mechanisms—an expensive undertaking. The economic proposal represents a more efficient middle ground. By re-raising the THC cap and introducing a THC-based excise tax, Iowa could stabilize and expand its existing low-THC market without the upfront costs of establishing a full legal market. This approach would also save on enforcement and administrative costs associated with legalization, while still generating steady revenue that could be directed toward public health programs and community reinvestment.

Final Recommendation

Based on this comparative analysis, the most balanced and feasible path forward for Iowa would combine elements of the criminal justice and economic proposals. A reclassification-based decriminalization model with automatic record expungement, scaled THC taxation, and pricing strategies designed to undercut the illicit market would reduce incarceration and racial disparities, create a sustainable funding stream for healthcare and harm reduction, and strengthen Iowa's existing cannabis market—all while remaining politically realistic in the state's current policy climate. To implement this reform, Iowa should take the following steps:

1. Reclassify possession of up to one ounce of cannabis as a civil infraction rather than a criminal offense, substantially reducing arrests and criminal justice involvement for low-level possession.
2. Implement automatic expungement for prior low-level cannabis convictions to correct historical inequities and remove long-term barriers to employment, housing, and education.
3. Re-raise the THC cap to pre-HF 2605 levels to restore market stability and support Iowa's hemp and low-THC producers, reducing reliance on unregulated products.
4. Adopt a scaled excise tax based on THC potency, calibrated using eviction-pricing principles to ensure that legal products remain competitively priced relative to the illicit market. By setting tax rates low enough to undercut illegal suppliers—while still discouraging excessively potent products—Iowa can reduce illicit market participation while minimizing public health risks.
5. Use savings from reduced enforcement costs to expand diversion, reentry, and community health programs, ensuring that justice reinvestment directly benefits affected populations.
6. Dedicate excise tax revenue to treatment, harm reduction, and prevention programs, including services for cannabis use disorder and broader substance-use treatment.
7. Reinvest savings from reduced enforcement and incarceration costs into diversion programs, reentry support, and community-based health initiatives, ensuring that justice reinvestment directly benefits populations most affected by prior cannabis enforcement.

This hybrid approach would allow Iowa to pursue meaningful reform without the fiscal, regulatory, and political hurdles of immediate full legalization. By pairing the justice gains of decriminalization and expungement with carefully designed eviction pricing and THC-based

taxation, Iowa can reduce illicit market activity, protect public health, and promote equity in a manner that is both evidence-based and politically durable.

BIBLIOGRAPHY

- ACLU. 2020. *A Tale of Two Countries: Racially Targeted Arrests in the Era of Marijuana Reform*. American Civil Liberties Union. <https://www.aclu.org/news/criminal-law-reform/a-tale-of-two-countries-racially-targeted-arrests-in-the-era-of-marijuana-reform>
- ACLU of Iowa. 2020. “Iowa Ranks Among the Worst States for Racial Disparities in Marijuana Arrests.” *ACLU of Iowa*, April 19, 2020. <https://www.aclu-ia.org/press-releases/iowa-ranks-among-worst-states-racial-disparities-marijuana-arrests/>
- ACLU of Iowa. 2022. *Marijuana Decriminalization Fact Sheet*. ACLU of Iowa. https://www.aclu-ia.org/app/uploads/2022/02/revised_marijuana_decriminalization_factsheet.pdf
- American Civil Liberties Union of Iowa. 2023. “Iowa Found to Rank 7th Worst in Prison Racial Disparities.” *Press release*, September 28, 2023. <https://www.aclu-ia.org/press-releases/iowa-found-rank-7th-worst-prison-racial-disparities/>
- Acton, Jennifer. 2024. *Fiscal Note 1448333*. Legislative Service Agency. March 26, 2024. <https://www.legis.iowa.gov/docs/publications/FN/1448333.pdf>
- Ali-Smith, Mustafa, and Keiana West. 2025. “Two Roads to Reform: Marijuana Policy Changes, Arrest Trends, and Racial Disparities in Chicago and Indianapolis.” *Princeton School of Public and International Affairs (JPIA)*, April 23, 2025. <https://jpia.princeton.edu/news/two-roads-reform-marijuana-policy-changes-arrest-trends-and-racial-disparities-chicago-and>
- Americans For Safe Access. n.d. “History of Medical Cannabis in Iowa.” *Americans For Safe Access*. https://www.safeaccessnow.org/history_of_medical_cannabis_in_iowa
- Auriol, Emmanuelle, Alice Mesnard, and Tiffanie Perrault. 2023. “Weeding Out the Dealers? The Economics of Cannabis Legalization.” *Journal of Economic Behavior and Organization* 216: 62–101. <https://doi.org/10.1016/j.jebo.2023.09.027>
- Bachhuber, Marcus A., Brendan Saloner, Chinazo O. Cunningham, and Colleen L. Barry. 2014. “Medical Cannabis Laws and Opioid Analgesic Overdose Mortality in the United States, 1999–2010.” *JAMA Internal Medicine* 174(10): 1668–1673. <https://doi.org/10.1001/jamainternmed.2014.4005>
- Backman, Isabella. 2023. “Not Your Grandmother’s Marijuana: Rising THC Concentrations in Cannabis Can Pose Devastating Health Risks.” *Yale School of Medicine*, August 30, 2023. <https://medicine.yale.edu/news-article/not-your-grandmothers-marijuana-rising-thc-concentrations-in-cannabis-can-pose-devastating-health-risks/>
- Bailey, Maggie. 2021. *Criminal Justice System Impacts of Cannabis Decriminalization & Legalization*. Criminal Justice Innovation Lab, UNC School of Government, University of North Carolina at Chapel Hill. June 2021. <https://cjil.sog.unc.edu/wp->

[content/uploads/2023/07/Impacts-of-Cannabis-Decriminalization-Legalization-6.24.2021.pdf](#)

- Balla, Agnes, Raymond G. Boyle, and Christina Dempsey. 2025. "State Funding for Cannabis Research: An Analysis of Funding Mechanisms and Levels." *Journal of Cannabis Research* 7(15). <https://doi.org/10.1186/s42238-025-00264-0>
- Bayens, Stephan K. 2025. *Iowa Drug Control Strategy & Drug Use Profile*. Iowa Department of Public Safety, Office of Drug Control Policy. <https://dps.iowa.gov/media/2566/download?inline>
- Boylan, Daniel H., and Quentin Sodano. 2023. "Economics of Legalization of Marijuana in Indiana." *Journal of Management Policy and Practice* 24(2): 1–14. <https://doi.org/10.33423/jmpp.v24i2.6150>
- Breaux, Aimee. 2019. "Survey: In Daily Marijuana Use, University of Iowa Students Outstrip Peers Nationally." *Iowa City Press-Citizen*, August 5, 2019. <https://www.press-citizen.com/story/news/2019/08/05/survey-marijuana-use-university-iowa-up-alcohol-consumption-down/1922206001/>
- Bryant, Erica. 2023. "Why Punishing People in Jail and Prison Isn't Working." *Vera Institute of Justice*, October 24, 2023. <https://www.vera.org/news/why-punishing-people-in-jail-and-prison-isnt-working>
- Centers for Disease Control and Prevention (CDC). 2024. "Health Effects of Cannabis." *Centers for Disease Control and Prevention*, February 16, 2024. https://www.cdc.gov/cannabis/health-effects/?CDC_AAref_Val=https://www.cdc.gov/marijuana/health-effects/index.html
- Cleveland Clinic. 2024. "Cannabis Use Disorder." *Cleveland Clinic Health Library*. Updated October 4, 2024. <https://my.clevelandclinic.org/health/diseases/cannabis-use-disorder>
- Coalition for Cannabis Policy, Education, and Regulation (CPEAR). 2023. *Disrupting the Illicit Market: Data-Informed Recommendations to Eliminate Unlawful Cannabis Commerce*. Coalition for Cannabis Policy, Education, and Regulation. September 19, 2023. <https://www.cpear.org/wp-content/uploads/2023/09/Disrupting-the-Illicit-Market-Data-Informed-Recommendations-to-Eliminate-Unlawful-Cannabis-Commerce.pdf>
- Daly, Lyle. 2025. "Marijuana Tax Revenue by State." *The Motley Fool*, November 21, 2025. <https://www.fool.com/research/marijuana-tax-revenue-by-state/>
- Devinsky, Orrin, J. Helen Cross, Linda Laux, Eric Marsh, Ian Miller, Rima Nabbout, Ingrid E. Scheffer, Elizabeth A. Thiele, and Stephen Wright. 2017. "Trial of Cannabidiol for Drug-Resistant Seizures in the Dravet Syndrome." *New England Journal of Medicine* 376(21): 2011–2020. <https://doi.org/10.1056/NEJMoa1611618>
- Dholakia, Nazish. 2025. "Mass Incarceration Is a Public Health Crisis." *Vera Institute of Justice*, June 17, 2025. <https://www.vera.org/news/mass-incarceration-is-a-public-health-crisis>

- Dholakia, Nazish. 2021. "Legalizing Marijuana Doesn't Mean It's Legal for Everyone." *Vera Institute of Justice*, April 20, 2021. <https://www.vera.org/news/legalizing-marijuana-doesnt-mean-its-legal-for-everyone>
- Dilley, Julia A., Beau Kilmer, Scott MacCoun, Rosalie Liccardo Pacula, and Eric L. Lindberg. 2023. "Cannabis Retail Market Indicators in Five Legal States in the United States: A Public Health Perspective." *Clinical Therapeutics* 45 (8): e57–e72. <https://doi.org/10.1016/j.clinthera.2023.07.006>
- Donohue, Brian. 2022. "Report Addresses Mental Health Risks of High-THC Cannabis." *UW Medicine Newsroom*, September 22, 2022. <https://newsroom.uw.edu/blog/report-ids-policy-options-deter-use-high-thc-pot>
- Dryden, Jim. 2018. "Decriminalizing Pot Doesn't Lead to Increased Use by Young People." *WashU Medicine News*, July 17, 2018. <https://medicine.wustl.edu/news/decriminalizing-pot-doesnt-lead-to-increased-use-by-young-people/>
- Dryburgh, Laura M., Nanthi S. Bolan, Christopher P.L. Grof, Peter Galettis, Jennifer Schneider, Catherine J. Lucas, and Jennifer H. Martin. 2018. "Cannabis Contaminants: Sources, Distribution, Human Toxicity and Pharmacologic Effects." *British Journal of Clinical Pharmacology* 84(11): 2468–2476. <https://doi.org/10.1111/bcp.13695>
- Earleywine, Mitch, and Sara Smucker Barnwell. 2007. "Decreased Respiratory Symptoms in Cannabis Users Who Vaporize." *Harm Reduction Journal* 4(1): 11. <https://doi.org/10.1186/1477-7517-4-11>
- Edwards, Ezekiel, and Rebecca McCray. 2012. "Hundreds of Economists: Marijuana Prohibition Costs Billions, Legalization Would Earn Billions." *American Civil Liberties Union*, April 26, 2012. <https://www.aclu.org/news/smart-justice/hundreds-economists-marijuana-prohibition-costs-billions>
- Eykelbosh, Angela. 2020. "Contaminants in Black Market Cannabis: Consumers Need Answers." *Blog*, February 19, 2020. National Collaborating Centre for Environmental Health (NCCEH). <https://ncceh.ca/resources/blog/contaminants-black-market-cannabis-consumers-need-answers>
- Eykelbosh, Angela. 2021. "Unregulated Cannabis: Risky Production Practices Raise Concern for Consumers." *Blog*, June 8, 2021. National Collaborating Centre for Environmental Health (NCCEH). <https://ncceh.ca/content/blog/unregulated-cannabis-risky-production-practices-raise-concern-consumers>
- Farrelly, Kyra N., Jeffrey D. Wardell, Emma Marsden, Molly L. Scarfe, Peter Najdzionek, Jasmine Turna, and James MacKillop. 2023. "The Impact of Recreational Cannabis Legalization on Cannabis Use and Associated Outcomes: A Systematic Review." *Substance Abuse: Research and Treatment* 17: 11782218231172054. <https://doi.org/10.1177/11782218231172054>

- Gomez, Suzette, and David Hampton. 2025. "Weed Is Stronger Now Than Ever Before." *Addiction Center*. <https://www.addictioncenter.com/drugs/marijuana/weed-stronger-than-before/>
- Good Iowa. 2025. "Should Iowa Be Talking More About Cannabis Reform?" *Good Iowa*, September 16, 2025. <https://goodiowa.org/should-iowa-be-talking-more-about-cannabis-reform/>
- United States Congress. 2018. *Agriculture Improvement Act of 2018* (Public Law 115-334). <https://www.govinfo.gov/content/pkg/PLAW-115publ334/html/PLAW-115publ334.htm>
- Gunadi, Christian, and Yuyan Shi. 2022. "Cannabis Decriminalization and Racial Disparity in Arrests for Cannabis Possession." *Social Science & Medicine* 293: 114672. <https://doi.org/10.1016/j.socscimed.2021.114672>
- Gunadi, Christian, and Yuyan Shi. 2022. "Association of Recreational Cannabis Legalization With Cannabis Possession Arrest Rates in the US." *JAMA Network Open* 5(12): e2244922. <https://doi.org/10.1001/jamanetworkopen.2022.44922>
- Haley, Charly. 2016. "Iowa Still Near Top for Locking Up Blacks, Study Says." *Des Moines Register*, June 15. <https://www.desmoinesregister.com/story/news/crime-and-courts/2016/06/15/iowa-still-near-top-locking-up-blacks-study-says/85936006/>
- Hall, Wayne. 2020. "The Costs and Benefits of Cannabis Control Policies." *Dialogues in Clinical Neuroscience* 22 (3): 281–287. <https://doi.org/10.31887/DCNS.2020.22.3/whall>
- Harper, Alexis J., and Cody Jorgensen. 2023. "Crime in a Time of Cannabis: Estimating the Effect of Legalizing Marijuana on Crime Rates in Colorado and Washington Using the Synthetic Control Method." *Journal of Drug Issues* 53(4): 552–580. <https://doi.org/10.1177/00220426221134107>
- Hasin, Deborah S., Tulshi D. Saha, Bradley T. Kerridge, Risë B. Goldstein, S. Patricia Chou, Haitao Zhang, Jeesun Jung, Roger P. Pickering, W. June Ruan, Sharon M. Smith, Boji Huang, and Bridget F. Grant. 2015. "Prevalence of Marijuana Use Disorders in the United States Between 2001–2002 and 2012–2013." *JAMA Psychiatry* 72(12): 1235–1242. <https://doi.org/10.1001/jamapsychiatry.2015.1858>
- Hill, Kevin P. 2015. "Medical Marijuana for Treatment of Chronic Pain and Other Medical and Psychiatric Problems: A Clinical Review." *JAMA* 313(24): 2474–2483. <https://doi.org/10.1001/jama.2015.6199>
- Iowa Department of Corrections (IDOC). 2025. *Daily Statistics 12/12/2025*. Iowa Department of Corrections. <https://doc-search.iowa.gov/dailystatistics>
- Iowa Legislature. 2025, October 16. *Cannabis Regulation in Iowa (Publication No. 1544022)* [PDF]. Iowa Legislature. <https://www.legis.iowa.gov/docs/publications/CLE/1544022.pdf>

- Iowa Legislature Fiscal Services Division. 2024. *FY 2026 Department Requests – Justice System Appropriations Subcommittee*. Iowa Legislature.
<https://www.legis.iowa.gov/docs/publications/BL/1462990.pdf>
- Iowa Office of Drug Control Policy (ODCP). 2023. *Iowa Drug Control Strategy & Drug Use Profile Annual Report*. Iowa Department of Public Safety.
<https://www.legis.iowa.gov/docs/publications/DF/1305806.pdf>
- Iowa Office of Drug Control Policy (ODCP). 2025. *Iowa Drug Control Strategy & Drug Use Profile*. Iowa Department of Public Safety.
<https://dps.iowa.gov/media/2566/download?inline>
- James, Jax. 2023. “NORML State Policy Weekly Update 1/24/2023.” *NORML*. January 24, 2023. <https://norml.org/blog/2023/01/24/state-policy-weekly-update-1-24-2023/>
- Kambath, Amisha. 2022. *Reducing Racial Disparities Through Decriminalization in Massachusetts: What Seems to Work and What Makes Matters Worse*. Policy Brief, Roundtable on Racial Disparities in Massachusetts Criminal Courts, Program in Criminal Justice Policy and Management, Harvard Kennedy School, March 2022.
<https://www.hks.harvard.edu/sites/default/files/centers/wiener/programs/pcj/files/reducing-racial-disparities-through-decriminalization.pdf>
- Kauffman, Clark. 2024. “Eight More Iowa Companies Sue the State Over Rollout of New Hemp Law.” *Iowa Capital Dispatch*, June 28, 2024.
<https://iowacapitaldispatch.com/2024/06/28/eight-more-iowa-companies-sue-the-state-over-rollout-of-new-hemp-law/>
- Kennedy, Joseph E. 2019. “Most of US Drug Arrests Involve a Gram or Less.” *Ponderwall*, June 17, 2019. <https://ponderwall.com/index.php/2019/06/17/drug-arrests-gram-less/>
- King, Daniel D., Christopher J. Gill, Carey S. Cadieux, and Neha Singh. 2024. “The Role of Stigma in Cannabis Use Disclosure: An Exploratory Study.” *Harm Reduction Journal* 21(21). <https://doi.org/10.1186/s12954-024-00929-8>
- Konfrst, James. 2023. *House File 442*. 90th General Assembly of the Iowa Legislature.
<https://www.legis.iowa.gov/legislation/BillBook?ga=90&ba=HF442>
- Krishna, Mrinalini. 2025. “Unlocking Economic Potential: Benefits of Legalizing Marijuana.” *Investopedia*, October 30, 2025.
<https://www.investopedia.com/articles/insights/110916/economic-benefits-legalizing-weed.asp>
- Lewis, Amanda Chicago. 2016. “America’s Whites-Only Weed Boom.” *BuzzFeed News*, March 16, 2016. <https://www.buzzfeednews.com/article/amandachicagolewis/americas-white-only-weed-boom>

- Mann, Brian. 2025. "U.S. Cannabis Shoppers Face Market Flush with Illegal Weed." *Iowa Public Radio*, February 5, 2025. <https://www.iowapublicradio.org/news-from-npr/2025-02-05/u-s-cannabis-shoppers-face-market-flush-with-illegal-weed>
- Marijuana Policy Project (MPP). 2022. *Behind the Times: The 19 States Where a Joint Can Still Land You in Jail*. Marijuana Policy Project. <https://www.mpp.org/issues/decriminalization/behind-the-times-by-marijuana-policy-project-the-19-states-where-a-joint-can-still-land-you-in-jail/>
- Marijuana Policy Project (MPP). 2025. "Iowa." *Marijuana Policy Project*. Last updated August 6, 2025. <https://www.mpp.org/states/iowa/>
- McCarthy, Stephen D.S., Adrienne Gaudreault, Jennifer Xiao, Benedikt Fischer, Wayne Hall, Kathryn Lee, Rachel Kang, Garry Aslanyan, Manish M. Sood, and Daniel T. Myran. 2025. "Evaluating the Association Between Cannabis Decriminalization and Legalization and Cannabis Arrests and Related Disparities: A Systematic Review." *International Journal of Drug Policy* 137: 104705. <https://doi.org/10.1016/j.drugpo.2025.104705>
- Miron, Jeffrey A. 2018. "The Budgetary Effects of Ending Drug Prohibition." *Tax and Budget Bulletin* No. 83, Cato Institute, July 23, 2018. <https://www.cato.org/tax-budget-bulletin/budgetary-effects-ending-drug-prohibition>
- Miron, Jeffrey A. 2023. "The Pros and Cons of Decriminalization." *Cato at Liberty* (blog), September 29, 2023. <https://www.cato.org/blog/pros-cons-decriminalization>
- Mittleman, Murray A., Rebecca A. Lewis, Malcolm Maclure, Jane B. Sherwood, and James E. Muller. 2001. "Triggering Myocardial Infarction by Marijuana." *Circulation* **103** (23): 2805–2809. <https://doi.org/10.1161/01.CIR.103.23.2805>
- MJBizDaily. 2022. "U.S. Cannabis Sales by State." *MJBizDaily*. Last updated February 6, 2023. <https://mjbizdaily.com/us-cannabis-sales-by-state>
- MJBizDaily. 2023. "Projected U.S. Legal Medical and Recreational Cannabis Market Size." *MJBizDaily*. Updated April 2023. <https://mjbizdaily.com/us-cannabis-sales-estimates/>
- Mosteller, Jeremiah. 2023. *Marijuana Legalization and the Impact on Crime: Policy Brief*. Badger Institute, November 14, 2023. <https://www.badgerinstitute.org/wp-content/uploads/2023/11/Badger-Institute-marijuana-legalization-and-the-impact-on-crime-231113.pdf>
- Murphy, Erin. 2017. "Branstad Signs Medical Cannabis Bill Into Law." *The Gazette*, May 12. <https://www.thegazette.com/government-politics/branstad-signs-medical-cannabis-bill-into-law/>
- National Academies of Sciences, Engineering, and Medicine (NASEM). 2017. *The Health Effects of Cannabis and Cannabinoids: The Current State of Evidence and Recommendations for Research*. Washington, DC: National Academies Press. <https://www.nationalacademies.org/publications/24625>

- National Academies of Sciences, Engineering, and Medicine (NASEM). 2024. *Cannabis Policy Impacts Public Health and Health Equity*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/27766>
- National Conference of State Legislatures (NCSL). 2024. “Cannabis Overview.” *National Conference of State Legislatures*. <https://www.ncsl.org/civil-and-criminal-justice/cannabis-overview>
- National Institute on Drug Abuse (NIDA). 2024. “Cannabis (Marijuana) Research.” *National Institute on Drug Abuse*. <https://nida.nih.gov/research-topics/cannabis-marijuana>
- National Public Radio (NPR). 2022. “Pot Shop Robberies Are Fueling Calls for a U.S. Banking Bill.” *National Public Radio*, April 20, 2022. <https://www.npr.org/2022/04/20/1093841615/pot-shop-robberies-are-fueling-calls-for-a-u-s-banking-bill>
- National Organization for the Reform of Marijuana Laws (NORML). 2025a. “Expungement of Cannabis Convictions.” *NORML*. <https://norml.org/laws/exp>
- National Organization for the Reform of Marijuana Laws (NORML). 2025b. “FBI: Marijuana Possession Arrests Comprised Over 20% of All Drug-Related Arrests in 2024.” *NORML* (blog), October 15, 2025. <https://norml.org/blog/2025/10/15/fbi-marijuana-possession-arrests-comprised-over-20-of-all-drug-related-arrests-in-2024/>
- National Organization for the Reform of Marijuana Laws (NORML). 2025c. “Iowa Laws and Penalties.” *NORML*. <https://norml.org/laws/iowa-penalties-2/>
- National Organization for the Reform of Marijuana Laws (NORML). 2025d. “Nebraska Laws and Penalties.” *NORML*. <https://norml.org/laws/nebraska-penalties-2/>
- National Organization for the Reform of Marijuana Laws (NORML). 2025e. “State Cannabis Laws and Penalties.” *NORML*. <https://norml.org/laws/>
- New York State Department of Health. 2024. “Cannabis and Public Health: Safety Information.” *New York State Department of Health*. <https://www.health.ny.gov/community/cannabis/safety.htm>
- Opsahl, Robin. 2024. “Here Are Some of the New Laws That Take Effect July 1 in Iowa.” *Iowa Capital Dispatch*, July 1, 2024. <https://iowacapitaldispatch.com/2024/07/01/here-are-some-of-the-new-laws-that-take-effect-july-1-in-iowa/>
- Parker, Owen. 2025. *Cannabis Regulation in Iowa*. Iowa Health and Human Services. <https://www.legis.iowa.gov/docs/publications/CLE/1544022.pdf>
- Peterson, Tom. 2023. “Motley Marijuana Laws Drive Consumers — and Revenue — Across State Lines.” *Stateline*, January 10, 2023. <https://stateline.org/2023/01/10/motley-marijuana-laws-drive-consumers-and-revenue-across-state-lines/>

- Petrino, Gene. 2025. "2025 Federal Crime Sentencing Report." *Security.org*. Updated December 9, 2025. <https://www.security.org/resources/crime-sentencing-by-state/>
- Petroski, William, and Jason Noble. 2014. "Iowa Senate Approves Medical Cannabis Oil Bill." *The Des Moines Register*, April 25, 2014. <https://www.desmoinesregister.com/story/news/politics/2014/04/25/iowa-senate-approves-medical-cannabis-oil-bill-treatment-seizures/8137919/>
- Pew Charitable Trusts. 2018. "More Imprisonment Does Not Reduce State Drug Problems." *Pew Charitable Trusts*, March 2018. <https://www.pew.org/en/research-and-analysis/issue-briefs/2018/03/more-imprisonment-does-not-reduce-state-drug-problems>
- Plunk, Andrew D., Stephanie L. Peglow, Paul T. Harrell, and Richard A. Grucza. 2019. "Youth and Adult Arrests for Cannabis Possession After Decriminalization and Legalization of Cannabis." *JAMA Pediatrics* 173(7): 673–681. <https://pmc.ncbi.nlm.nih.gov/articles/PMC6580444/>
- Prison Policy Initiative. 2024. "Iowa Profile." *Prison Policy Initiative*. <https://www.prisonpolicy.org/profiles/IA.html>
- Ramm, Michaela. 2024. "Iowa's Medical Marijuana Program Is 10 Years Old. How Does It Compare With Other States?" *Des Moines Register*, April 16, 2024. <https://www.desmoinesregister.com/story/news/health/2024/04/16/iowa-medical-marijuana-pot-weed-hemp-thc-law-10-years-on-what-to-know-states-outpacing/73260699007/>
- Reynolds, Kim. 2020. *HF 2581*. Iowa Legislature. <https://www.legis.iowa.gov/docs/publications/LGE/88/HF2581.pdf>
- Rogeberg, Ole, and Rune Elvik. 2016. "The Effects of Cannabis Intoxication on Motor Vehicle Collision Revisited and Revised." *Addiction* 111(8): 1348–1359. <https://pubmed.ncbi.nlm.nih.gov/26878835/>
- Ronne, Sabrina Trappaud, Frederik Rosenbaek, Line Bjornskov Pedersen, Frans Boch Waldorff, Jesper Bo Nielsen, Helle Riisgaard, and Jens Sondergaard. 2021. "Physicians' Experiences, Attitudes, and Beliefs Towards Medical Cannabis: A Systematic Literature Review." *BMC Family Practice* 22: 203. <https://pmc.ncbi.nlm.nih.gov/articles/PMC8532330/>
- Ryan, Jennie E., Sean Esteban McCabe, and Carol J. Boyd. 2021. "Medicinal Cannabis: Policy, Patients, and Providers." *Policy, Politics & Nursing Practice* 22(4): 393–402. <https://pmc.ncbi.nlm.nih.gov/articles/PMC8098049/>
- Sillic, Bob. 2025. "Des Moines Cannabis Consumers Are Active Citizens, Survey Shows." *Iowa Capital Dispatch*, June 22, 2025. <https://iowacapitaldispatch.com/2025/06/22/des-moines-cannabis-consumers-are-active-citizens-survey-shows/>

- Sheehan, Brynn E., Richard A. Gruzca, and Andrew D. Plunk. 2021. "Association of Racial Disparity of Cannabis Possession Arrests Among Adults and Youths With Statewide Cannabis Decriminalization and Legalization." *JAMA Health Forum* 2(12): e213805. <https://jamanetwork.com/journals/jama-health-forum/fullarticle/2785582>
- Spellman Law, PC. 2019. "In Parts of Iowa, 20% of All Arrests Are for Marijuana Possession." *Spellman Law, PC* (blog), April 24, 2019. <https://www.spellmanlawpc.com/blog/2019/04/in-parts-of-iowa-20-of-all-arrests-are-for-marijuana-possession/>
- Stanford Network on Addiction Policy (SNAP). n.d. "Criminalization and Decriminalization of Marijuana Possession in Non-Legalization States." *Stanford Network on Addiction Policy*. <https://addictionpolicy.stanford.edu/criminalization-and-decriminalization-marijuana-possession-non-legalization-states>
- Stanciu, Corneliu N., Mary F. Brunette, Nikhil Teja, and Alan J. Budney. 2021. "Evidence for Use of Cannabinoids in Mood Disorders, Anxiety Disorders, and PTSD: A Systematic Review." *Psychiatric Services* 72(7): 725–733. <https://pubmed.ncbi.nlm.nih.gov/33530732/>
- Stroka, Mary. 2021. "Iowa Scores Lowest in the Nation in Policing and Corrections Spending." *The Center Square*, November 22, 2021. https://www.thecentersquare.com/iowa/article_f885305a-4659-11ec-8b2c-63717c295ebd.html
- Sunrise Recovery Care. 2024. "Drug Rehabilitation vs. Incarceration." *Sunrise Recovery Care*. <https://www.sunriserecoverycare.com/drug-rehabilitation-vs-incarceration/>
- Tashkin, Donald P. 2013. "Effects of Marijuana Smoking on the Lung." *Annals of the American Thoracic Society* 10(3): 239–247. <https://pubmed.ncbi.nlm.nih.gov/23802821/>
- Tax Policy Center. 2024. "How Do State and Local Cannabis (Marijuana) Taxes Work?" *Tax Policy Center*. <https://taxpolicycenter.org/briefing-book/how-do-state-and-local-cannabis-marijuana-taxes-work>
- The Advocates. 2024. "Crime Rates in Iowa." *The Advocates*. <https://www.theadvocates.com/iowa/knowledge-base/crime-rates-in-iowa/>
- Transform Drug Policy Foundation. 2023. "Criminalization Does Not Deter People From Taking Drugs." *Transform Drug Policy Foundation*. <https://transformdrugs.org/blog/criminalisation-does-not-deter-people-from-taking-drugs>
- University of Iowa Political Science. 2022. *University of Iowa Hawkeye Poll: Majority of Iowans Support Legalization of Marijuana for Medical and Recreational Use (Topline Results)*, May 19, 2022. <https://politicalscience.uiowa.edu/sites/politicalscience.uiowa.edu/files/2023-05/Hawkeye%20Poll%20%282022%20April%29%20->

[%20Iowans%20support%20medical%20and%20recreational%20marijuana%20-%20Topline.pdf](#)

- USAFacts. 2025. “Which States Have the Highest and Lowest Crime Rates?” *USAFacts*.
<https://usafacts.org/articles/which-states-have-the-least-and-most-crime/>
- Volkow, Nora D., Ruben D. Baler, Wilson M. Compton, and Susan R.B. Weiss. 2014. “Adverse Health Effects of Marijuana Use.” *New England Journal of Medicine* 370(23): 2219–2227. <https://www.nejm.org/doi/full/10.1056/NEJMra1402309>
- Wagner, Jens A., Zoltan Járαι, Sándor Bártkai, and George Kunos. 2001. “Hemodynamic Effects of Cannabinoids: Coronary and Cerebral Vasodilation Mediated by Cannabinoid CB₁ Receptors.” *European Journal of Pharmacology* 423(2–3): 203–210.
[https://doi.org/10.1016/S0014-2999\(01\)01112-8](https://doi.org/10.1016/S0014-2999(01)01112-8)
- Wang, George Sam, Christine Buttorff, Asa Wilks, Daniel Schwam, Gregory Tung, and Rosalie Liccardo Pacula. 2022. “Impact of Cannabis Legalization on Healthcare Utilization for Psychosis and Schizophrenia in Colorado.” *The International Journal on Drug Policy* 108: 103843. <https://pubmed.ncbi.nlm.nih.gov/35429874/>
- Wang, Leah. 2023. “Updated Data and Charts: Incarceration Stats by Race, Ethnicity, and Gender for All 50 States and D.C.” *Prison Policy Initiative* (blog), September 27, 2023.
https://www.prisonpolicy.org/blog/2023/09/27/updated_race_data/
- Washington State University (WSU) News. 2018. “Positive Policing Changes After Cannabis Legalization, Seen by WSU Researchers.” *Washington State University News*, July 24, 2018. <https://news.wsu.edu/press-release/2018/07/24/positive-policing-changes-after-cannabis-legalization/>
- Whitlatch, Kaelei. 2024. “How Iowa Businesses Are Adapting to New THC Law Setting a Potency Cap on Hemp Products.” *KGAN*, June 12, 2024.
<https://cbs2iowa.com/news/local/how-iowa-businesses-are-adapting-to-new-thc-law-setting-a-potency-cap-on-hemp-products>
- Wu, Guangzhen, Yongtao Li, and Xiaodong Lang. 2021. “Effects of Recreational Marijuana Legalization on Clearance Rates for Violent Crimes: Evidence From Oregon.” *International Journal of Drug Policy* 94: 103233.
<https://doi.org/10.1016/j.drugpo.2021.103233>
- Yona, Kit. 2025. “Iowa Marijuana Laws.” *FindLaw*, last reviewed May 30, 2025.
<https://www.findlaw.com/state/iowa-law/iowa-marijuana-laws.html>
- Zhang-James, Yanli, Evelyn Wyon, Dennis Grapsas, and Brian Johnson. 2023. “Daily Cannabis Use May Cause Cannabis-Induced Hyperalgesia.” *American Journal on Addictions* 32(6): 532–538. <https://doi.org/10.1111/ajad.13456>
- 90th General Assembly. 2023. *IA SF73 | 2023–2024 | Iowa Senate Bill 73*. Legiscan.
<https://legiscan.com/IA/bill/SF73/2023>

Thank you for reading the 2025/2026 Hawkeye Policy Report

Please forward any questions to Prof. Nicholas Martini (Nicholas-martini@uiowa.edu)

Any students interested in joining the Iowa Policy Research Organization (IPRO) should contact Prof. Martini for permission to join our Fall course (POLI:3127 - Legislative Policy Seminar)

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