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IOWA'S CHILDCARE SOLUTIONS FUND: A MODEL FOR CLOSING THE CHILDCARE GAP

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ABOUT COMMON SENSE INSTITUTE

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INTRODUCTION

In a 2015 report, the Iowa Women's Leadership Project found 70% of Iowa's women were struggling economically, 40% were living below the federal poverty level, and 30% were not earning enough to be economically self-sufficient.¹ A partner in the project, the Iowa's Women's Foundation (IWF) held focus groups in 18 communities across Iowa in 2015 and 2016 to understand how IWF might positively impact the economic self-sufficiency of women and girls in the state. Each focus group made up of local community partners provided information about the barriers and challenges facing women and girls in their area. The statewide tour culminated in the 2016 "She Matters" report, which identified six key barriers to the economic advancement of lowa's women and girls: employment, childcare, housing, education/training, transportation, and mentors.² Nine of the 18 communities singled out access to guality affordable childcare as the primary barrier. Starting in 2018, IWF began a more concerted effort to find and implement childcare solutions across the state. The 2024 fiscal year marked a major advancement in this effort with the launch of the "Childcare Solutions Fund" (CSF) pilot program. Guided by the needs of each community, the program matched private dollars raised locally with state funding to bring local solutions to the childcare shortage. In this report, Common Sense Institute in partnership with the Iowa Women's Foundation reviews the CSF program and its outcomes, analyzing its efficacy using key data points.

Before analyzing the CSF state pilot program, the report provides background on the program's origin, funding, terms, and other details. For its analysis, it first publishes the program's outcomes as reported by the pilot communities. It then conducts a separate quantitative analysis based on outside data. Based on the findings from this analysis, CSI forecasts the statewide economic impact of expanding the CSF across the state, assuming the same efficacy as seen in the pilot communities. It then reviews the latest data on access to and cost of childcare in Iowa and the impact of these factors on labor force participation. Finally, after explaining the economics of the childcare market and the childcare business model, the report identifies how interventions such as the CSF might impact outcomes and makes recommendations for the future.

KEY FINDINGS

- Reporting by the CSF pilot communities showed the program added an average of 22 new childcare slots per 1,000 children. Using outside data, CSI's analysis confirmed the pilot added an estimated 21.5 new childcare slots per 1,000 children.
- Based on results from the pilot program, a statewide CSF would—
 - > Add nearly 11,000 new registered or licensed childcare slots across the state.
 - > Enable about 5,000 women to enter the workforce, increasing Iowa's female LFPR by 0.56%, from 80.3% to 80.86%. This includes 1,000 new childcare workers.
 - > Directly and indirectly add a total of approximately 8,000 jobs to Iowa's economy, including the direct increase of 5,000 female workers.
 - > Expand Iowa's GDP by \$13 billion over 10 years.
 - > Increase statewide personal income by \$6.1 billion over 10 years.
- The program would yield an estimated \$45 of GDP growth and \$21 in personal income growth for every \$1 invested by the private sector over the next decade.
 - > Expanding the CSF across the state would cost about \$28 million annually, increasing each year with wage growth and inflation, for a total cost of about \$350 million over 10 years.
 - > CSI estimates a cost of approximately \$2,800 for each new childcare slot attributable to the pilot program in 2024.
- In the 2015 and 2016 "She Matters" reports, the Iowa Women's Foundation (IWF) found 70% of Iowa's women were struggling economically, and they identified childcare as their primary barrier to economic advancement.
 - > Although Iowa ranks in the top five highest LFPR states for females with children, the average labor force participation rate for mothers of children under 6 is 5.8% lower than for mothers with older children.
 - > If every mother with children had access to childcare and chose to enter the workforce, CSI estimates 150,000 additional mothers could enter the workforce.
- While Iowa's childcare shortage has declined by 8.7% since 2018, the state still has a shortage of slots needed.
 - > The state has an estimated 507,254 children aged 0-12 while it has only 177,053 operational childcare slots registered or licensed with the state.
 - > If cost and access to childcare were not an obstacle, the state would need between 118,000 and 242,000 more childcare slots to meet demand.
- For a typical lowa household with three young children where the mother earns \$40,000 and the spouse earns \$45,000—
 - > Childcare consumes 113% of the mother's after-tax income.
 - > The family loses \$4,000 in net income annually if they use childcare so the mother can enter the workforce.

THE CHILDCARE SOLUTIONS FUND

The state of Iowa has several programs designed to increase the availability of quality affordable childcare slots throughout the state.³ This report aims primarily to survey Iowa's Childcare Solutions Fund pilot program and analyze its effectiveness in addressing the childcare shortage in each pilot community. This section of the report narrates the history of the fund and how it came into existence. It then describes how the fund works, including the role of the Iowa Women's Foundation in administering and facilitating the program. The next section publishes the results data collected and reported by each pilot community at the conclusion of the program. It then uses outside data to provide a quantitative analysis of the results from the program, demonstrating its success. Finally, it estimates the potential economic impact to the state of turning the CSF into a statewide program.

Solutions funds began as public-private partnerships

In 2021, the Governor's Child Care Task Force Report identified policy recommendations to help address the market failure in childcare,* or as Iowa Workforce Development put it, "to develop a comprehensive strategy to address the childcare shortage and barriers to work in Iowa."⁴ Among other recommendations, the report suggested "a child care planning pilot program that identifies a single point of contact for employers, advocates, and communities to seek technical assistance on child care."⁵ Because the Iowa Women's Foundation had already proven itself a leader in finding and delivering childcare solutions tailored to local communities, the state partnered with IWF to fill this role.

The Iowa Women's Foundation has experienced tremendous growth in the past three years, helping community leaders form sustainable public-private childcare solutions. By the summer of 2022, IWF was working with 45 communities on childcare solutions across the state. In June of that year, the foundation hired an Employer Engagement Director to collect community data on childcare needs and solutions happening across the state. Now, the organization is engaged with 85 communities, over 160 business leaders, 44 economic development and chamber of commerce offices, and 37 out-of-state leaders—all working with IWF on childcare solutions.

^{*}See the section of this report entitled "The Economics of Childcare" for more on the childcare market failure.

In the course of her work, IWF's Employer Engagement Director found several communities that had already established a public-private partnership designed to increase the availability of affordable local childcare options, but they needed additional resources to advance their efforts. The director found business leaders largely understood the need for intervention in the childcare market. When parents lack childcare it reduces labor force participation, making it more challenging for businesses to hire the workers they need. Additionally, business leaders observed a lack of reliable childcare led to absenteeism and disruptions within their existing workforce. They saw an opportunity to help alleviate these issues, leading to increased economic opportunity and better outcomes for businesses and parents.

In June 2022, Iowa announced two business incentive grants aimed at supporting employers who invest in childcare solutions. This proactive approach encouraged local businesses to consider sustainable childcare options, leading to meaningful partnerships. Since then, the state has invested over \$57 million on business incentive grants to Iowa employers. With business leaders investing in creating sustainable childcare solutions, IWF next explored what communities across the state were doing for their childcare providers, looking for additional ways for businesses to engage in solutions.

As IWF engaged with communities across Iowa, they discovered childcare providers struggled to maintain available childcare slots due to low staff. While communities also identified the need for direct investments in slots or building new centers, the data pointed to the needed to solve the childcare workforce wages issue first. As described in a later section of this report, "The Economics of Childcare," providers cannot increase operating expenses without raising tuition. But higher tuition burdens parents who already pay high tuition rates for childcare. Fortunately, Hamilton County had already developed and modeled a replicable wage enhancement program that allows childcare providers to attract and retain workers without the need to raise tuition.

In 2021, Hamilton County launched a public-private fund to tackle their childcare workforce issues. An Early Childhood Iowa (ECI) director realized they had four childcare centers sitting at 65% capacity due to lack of staff. This equated to over 125 licensed childcare spaces sitting unused. To combat this problem, they asked local employers to invest in a "solutions fund" at the rate of \$125 per employee each year. The investments began slowly until Town and County Insurance invested \$30,000 into the fund and saw results. The county's childcare providers could hire and retain more staff, thus reducing workforce disruptions for parents who rely on childcare. To date, over \$710,000 has been pledged to Hamilton County's solutions fund, including \$227,000 in public funds and \$433,078 in private funds. The fund increased provider wages by 36% and has retained enough childcare workers to bring all four centers up to their maximum licensed capacity. The county of only about 15,000 residents and 2,350 children under 12 now has 100 additional children receiving care.⁶

Iowa's CSF pilot program is driven by local investment and leadership

After discovering the success of the solutions fund in Hamilton County, Johnson County established the second solutions fund in Iowa. The IWF Employer Engagement Director then began advocating for replicating the model in other communities. In October 2023, the Iowa Department of Health and Human Services (HHS) introduced a pilot program to support additional communities in establishing childcare solutions funds. This initiative matched state funds with private contributions, enabling ten pilot communities to start their own funds with eleven more poised to launch in 2025. The pilot communities, including Hamilton and Johnson counties, were selected to participate in the pilot program because they had invested time in receiving technical assistance from IWF's Employer Engagement Director. The initiative allocated a maximum of \$3 million for distribution from American Rescue Plan Act (ARPA) funds. The following describes the parameters around the program:

- **Funding**: After being selected to participate in the pilot program, communities had six weeks to secure private funds from local businesses, residents, and nonprofits. The Department of Health and Human Services pledged to match two dollars for every one dollar raised up to a certain amount specified in the state's contract with each community.
- **Use of Funds:** The ARPA matching funds were strictly designated for childcare provider wages, addressing the critical need identified through local data on provider retention and compensation.
- **Timeline:** Pilot communities were required to expend all funds between November 1, 2023 and September 30, 2024.
- **Goal:** The program aimed to increase the availability of quality affordable childcare slots in pilot communities.
- **Sustainability:** Local business and community leaders can ensure sustainability after ARPA dollars run out by investing in their local childcare needs. Another state match in the future would add to the locally invested funds.

In addition, each participating community was required to engage with IWF's Employer Engagement Director at least twice. This engagement led to the establishment of a monthly Zoom meeting for all pilot communities to—

- Share resources, including program parameters, marketing materials, and applications.
- Discuss best practices and challenges related to the Childcare Solution Fund.

Each community recognized the value of technical assistance by IWF. All communities met with the Employer Engagement Director at least eight times. The Employer Engagement Director supported pilot communities by—

- Providing resources, presentations, and data collection support to the communities.
- Bridging the language gap between childcare regulations and economic vitality for communities.

- Ensuring alignment with local needs and maintaining quality standards in childcare.
- Assisting in setting program parameters that incorporate T.E.A.C.H, WAGE\$, and collaboration with local Child Care Resource & Referral (CCR&R) agencies.⁷

The Childcare Solutions Funds are designed to foster collaboration among communities and enhance the financial stability of childcare providers through a well-structured public-private funding model. Ongoing support from IWF ensures these efforts are effective, sustainable, and aligned with quality childcare needs. These childcare needs may vary each year and with each community. Monthly meetings continue to facilitate knowledge sharing and resource development among participating communities.

CHILDCARE SOLUTIONS FUND: RESULTS AND ANALYSIS

The Iowa Department of Health and Human Services required participating pilot communities who received state funds to report back to the department with certain data points. Unfortunately, three of the ten pilot communities did not report back to HHS and IWF in time to be included in this report. The first subsection below entitled "Pilot communities report more childcare workers and slots after CSF" publishes the program's outcomes as reported by the pilot communities. The following subsection presents CSI's analysis of the pilot program's success using outside data. Finally, CSI employs the REMI model to simulate the potential economic impact this pilot program could have on Iowa's economy if deployed across the entire state with results mirroring to those seen in the pilot communities.⁸

Pilot communities report more childcare workers and slots after CSF

At the start of the CSF pilot program in November 2023 before receiving state funds, each pilot community entered into a contract with the state that established the obligations of each party and the maximum amount each pilot could receive from HHS under the program. Final funding depended on the amount raised from businesses, non-profits, and individuals within each pilot community and on the total amount expended by September 30, 2024. Pilots were awarded two dollars from HHS for every one dollar raised privately up to the maximum allocation specified in the contract. The HHS dollars came in the form of reimbursements for expenditures under the pilot program. Thus, regardless of the total award allowed, pilots only received HHS reimbursements up to the total program expenditures by September 30, 2024. Table 1 shows the maximum HHS funding awarded and total program expenditures for each pilot community.

Table 1. Funding and Expenditures by CSF Pilot Community						
Pilot Community	HHS Funds Awarded	Funds Expended for SFY 24	Wage Enhancement Expenditures	Admin. Expenditures	Percent to Admin	
Allamakee County	\$325,949.80	\$325,949.80	\$309,652.35	\$16,297.45	5.00%	
Cerro Gordo County	\$647,000.00	\$647,000.48	\$597,000.00	\$50,000.00	7.70%	
Dubuque	\$560,000.00	\$600,331.95	\$536,010.56	\$64,321.29	10.70%	
Hamilton County	\$414,408.00	\$383,244.42	\$291,764.47	\$0.00	0.00%	
Howard County	\$203,800.00	\$223,645.00	\$223,645.00	\$0.00	0.00%	
Mt. Vernon & Lisbon	\$63,045.44	\$63,045.44	\$63,045.44	\$0.00	0.00%	
Mitchell County	\$666,734.00	\$666,734.00	\$566,723.00	\$100,010.10	15.00%	
Total	\$2,880,937.24	\$2,909,951.09	\$2,393,755.91	\$219,599.78	7.90%	

Of the \$3 million appropriated for the CSF pilot program, the seven reporting programs were awarded a maximum of \$2.9 million based on their contracts and the amounts they raised for the match. Only Hamilton County expended less than their maximum award; however, it already had an active CSF before the state pilot began, which may have caused this incongruency. Every other pilot expended all their HHS funds. Dubuque and Howard County spent more than their HHS award; they deployed some of the funds they raised from the private sector. Most communities spent only the HHS funds, leaving 100% of the private dollars raised to sustain wage enhancements next year. Table 2 shows the amount each community raised for the HHS match, how much each raised in additional private funds since the initial match, and how much funding each pilot community still has available to spend to sustain the program through another year.

Table 2. Sustainal	Table 2. Sustainability of CSF in each Pilot Community without Additional HHS Funding						
Pilot Community	Funds Raised for HHS Match	New Funds Raised Since Match	Private Investments Remaining for next year	% Raised to Maintain 2024 Expenditures in 2025			
Allamakee County	\$162,974.90	\$54,600.00	\$217,574.90	67%			
Cerro Gordo County	\$325,000.00	\$64,000.00	\$388,999.52	60%			
Dubuque	\$280,000.00	\$539,000.00	\$778,668.05	130%			
Hamilton County	\$204,000.00	\$0.00	\$204,000.00	53%			
Howard County	\$101,900.00	\$61,175.18	\$143,230.18	64%			
Mt. Vernon & Lisbon	\$31,500.00	\$4,550.00	\$36,050.00	57%			
Mitchell County	\$333,367.00	\$277,984.00	\$611,351.00	92%			
Total	\$1,438,741.90	\$1,001,309.18	\$2,379,873.65	82%			

For the initial match, each pilot community raised half of the amount awarded them by HHS; this is also half the amount they spent on the wage enhancement program in 2024. Therefore, pilot communities must raise the same amount again to maintain their wage enhancement program for another year if HHS does not contribute during state fiscal year (SFY) 2025. As seen in the last column of table 2, only the Dubuque pilot has achieved this to date. Notably, pilots could sustain their wage enhancement program at 2024 levels without raising 100% of 2024 expenditures if they can reduce administrative costs.

In addition to reporting on dollars raised and spent, pilot communities reported program results back to HHS and IWF. That reporting included soft data in which each pilot described their plans for sustainability, lessons learned, recommendations for the program, and what they found they needed assistance with during the program. Such feedback will help to improve the program's design and administration in the future. Table 3 shows the data reported by the participants that serves as a starting point for CSI's quantitative analysis of the program.

	Table 3. Pilot	t Community I	Reported Imp	act of CSF		
Pilot Community	Childcare Providers Engaged	Number of Childcare Personnel Impacted	Total Staff Retained plus New Staff Hired	Total Childcare Slots Created	Total Private Entities Providing Funding	New Private Entities Pledged since Initial Match
Allamakee County	15	77	11	13	197	11
Cerro Gordo County	41	284	33	97	21	1
Dubuque	18	479	80	61	15	9
Hamilton County	12	87		18	33	0
Howard County	3	94	80	20	57	7
Mt. Vernon & Lisbon	2	95	7	35	13	0
Mitchell County	14	86	12	31	37	30
Total	105	1202	223	275	373	58

The reporting mandated by HHS and provided by pilot communities shows substantial impact. A total of 105 childcare providers participated in the CSF across the seven reporting pilot communities. Over 1,200 childcare personnel received some kind of wage enhancement benefits. Those benefits ranged from increased hourly pay, additional hours of work scheduled, and bonuses for recruitment and retention. Participating providers attested to the benefits of the program. For example, Cerro Gordo County reported providers were "able to seek out better qualified candidates to hire, as the pay rate brings in more quality from the hiring pool," and "staff are staying more long-term due to having better pay, which in turn means we are able to take in more children." One childcare worker whose experience reflected that of other workers testified, "I wouldn't have been able to come back to Newman to work, [sic] I would have had to seek employment with a higher pay" if not for the wage enhancement program. This success shows up in the number of staff retained and new staff hired thanks to the CSF. The pilots reported creating a total of 275 new childcare slots because of the program. A total of 373 local businesses and other private entities donated or pledged a total of nearly \$2.4 million across the seven reporting pilots. These results from self-reporting testify to the powerful impact of the CSF in the pilot communities.

While important and useful for the review of the pilot program, the results reported by the pilot communities are imperfect. Reporting the number of personnel impacted does not convey the type and extent of the impact. For the metric "Number of Childcare Personnel Impacted," for example, an existing employee receiving an additional two hours of work scheduled each week counts the same as hiring a new worker full time. Those also count the same as an existing employee keeping the same number of hours but earning \$2 per hour more. This flexibility in how providers deploy funds is central to the CSF model; however, it makes concrete quantitative analysis more challenging. Even with more uniform reporting, checking results against other data sources is prudent. Common Sense Institute's analysis in the next subsection relies on data from Iowa CCR&R to analyze the impact of the CSF.⁹

CSI's analysis using outside data confirms CSF pilot success

Based on the data collected from CCR&R, counties without a CSF pilot program had an average of roughly 291 child-care slots for every 1,000 children aged 12 or under at the start of the program, while the five pilot counties included in CSI's analysis had a slightly higher average of 305 per 1,000. After the treatment period, non-pilot counties saw an increase to roughly 300 slots per 1,000 children (+3.1%), while pilot counties saw an increase of 12.0% to 336 slots per 1,000, suggesting the pilot program had a positive effect on the number of childcare slots in participating counties.

To further evaluate the efficacy of the CSF pilot program, CSI employed a difference-in-difference (DID) regression with individual county fixed effects to control for unobserved, time-invariant differences between counties that may affect the number of childcare slots. Difference-in-difference regression is an econometric method used to compare changes in an outcome variable between a treatment group and a control group, allowing researchers to estimate the average effect of the treatment in question. This methodology accounts for differences in the treatment and control groups that may have been present before treatment took place. In this case, it accounts for the difference in the number of childcare spaces, assuming the control and treatment groups would have followed a similar trend between the pre- and post-treatment periods. Common Sense Institute utilized four different fixed effect regressions to estimate both the nominal and percentage change in the number of childcare slots and number per 1,000 residents under the age of 12.[†]

Using this framework, CSI estimates the pilot program led to an increase of 21.48 childcare spaces for every 1,000 children under 12. Using instead the natural log of spaces per-capita in the fixed-effects DID framework, CSI estimates the pilot program was responsible for a roughly 5.9% increase in childcare slots per 1,000 children aged 12 and under in those counties that participated in the pilot program. These results are nearly identical to those reported by the pilot communities directly. Based on their reports, the five pilot communities evaluated in this section created 22 childcare spaces for every 1,000 children under 12. While the reported results and CSI's analysis represent different methods for analyzing the program's efficacy, both show similar positive outcomes and support the reliability of the results.

Based on the outcome from CSI's DID analysis and the program expenditures reported by the pilot communities, CSI estimates a cost of approximately \$2,800 for each new childcare slot attributable to the pilot program in 2024.

[†]See Appendix B for more on methodology.

A statewide CSF would grow state GDP by \$13 billion over 10 years

Based on the results of the CSF in the pilot communities, CSI can estimate the hypothetical impact of a statewide CSF program administered locally, assuming the same results. Common Sense Institute forecasts future economic impact using the REMI model.¹⁰ To run the model simulation, CSI must first estimate certain variables and expected direct statewide impacts of the program, starting with cost. Common Sense Institute estimates the program will cost about \$28 million in year one and a total of \$315 million over 10 years, as seen in table 4.

Table 4. An	Table 4. Annual Cost of Statewide CSF Wage Enhancement Program (millions)					
Year	Annual Amount Toward Wage Enhancement	Annual Amount Toward Administrative Costs	CSF Total Cost			
2025	\$27.74	\$2.87	\$30.61			
2026	\$28.46	\$2.92	\$31.39			
2027	\$29.25	\$2.98	\$32.23			
2028	\$30.09	\$3.04	\$33.13			
2029	\$30.97	\$3.10	\$34.07			
2030	\$31.87	\$3.16	\$35.03			
2031	\$32.76	\$3.23	\$35.99			
2032	\$33.65	\$3.29	\$36.94			
2033	\$34.50	\$3.36	\$37.86			
2034	\$35.37	\$3.42	\$38.79			
Total	\$314.66	\$31.37	\$346.04			

Common Sense Institute also estimated the statewide change in employment and labor force participation based on the results in the five pilot communities. It assumes as long as the program remains funded at the appropriate level seen in table 4, these impacts will remain constant.

Table 5. Direct Impact of Statewide CSF on Female Employment and LFPR					
Increase in Childcare Employment 967					
Increase in Non-Childcare Employment	3,985				
Total Direct Increase in Employment	4,952				
Increase in LFPR	0.56%				

Based on these inputs, CSI simulated a 10-year forecast of the economic impact of expanding the CSF wage enhancement program statewide using REMI.

Year	GDP	Personal Incom
2025	\$990	\$422
2026	\$1,208	\$520
2027	\$1,281	\$578
2028	\$1,321	\$613
2029	\$1,341	\$635
2030	\$1,352	\$650
2031	\$1,359	\$661
2032	\$1,369	\$669
2033	\$1,381	\$679
2034	\$1,403	\$694
Total	\$13,005	\$6,121

Common Sense Institute estimates replicating the success of the CSF pilot program across the state would increase statewide GDP by approximately \$13 billion and increase personal income by \$6.1 billion over the next decade if the private sector supports its continued operation after year one. In addition to the approximately 5,000 jobs created directly by the program, CSI's simulation estimates an increase of just over 3,000 more jobs thanks to the knock-on effects of the economic growth resulting from the program. In total, the program would result in a total of approximately 8,000 additional jobs annually for lowa's economy. Notably, the 5,000 direct jobs created would not tighten the labor market, as jobs would be filled through an increase in female labor force participation. To achieve these results, CSI estimates the state would need to provide approximately \$28 million in matching seed money in year one, and the private sector would need to contribute an additional \$289 million over the subsequent nine years. Over the decade, the program would yield an estimated \$45 of GDP growth and \$21 in personal income growth for every \$1 invested by the private sector.

LACK OF CHILDCARE HURTS IOWA WOMEN AND BUSINESSES

lowa's childcare deficit has been steadily improving since 2018, as seen in figure 1. This year, 34.9% of children under 12 were eligible for childcare compared to 31.64% in 2018.[‡] However, while the childcare shortage has declined 8.7% since 2018, it remains an ongoing obstacle for Iowa's workforce, especially its female workforce. The Iowa Women's Foundation and other governmental and non-governmental organizations have reported extensively on the ongoing shortage of affordable childcare in Iowa and its impact on the state's workforce and businesses. The research and data consistently point to the same conclusion: Iowa continues to have insufficient affordable quality childcare. This childcare shortage prevents many parents—particularly women—from becoming economically self-sufficient through gainful employment and career advancement. For businesses, the lack of childcare means fewer workers to fill needed roles and absenteeism with their current workforce.

When parents lack access to childcare, the labor force participation rate drops, creating a tighter labor market and reducing the productivity of Iowa's economy. Data show labor force participation remains markedly lower for women with young children than for women without children or with older children. While some of them make the personal choice to remain home with their children, many would work if they had affordable and adequate childcare. A 2015 Gallup poll showed that 44% of U.S. women prefer to "stay home, take care of house and family" while 53% prefer to "have a job outside the home."¹¹ The poll showed 37% of unemployed women with children under 18 would prefer to work outside the

home. While the poll does not indicate why those 37% remain out of the workforce, other research points to lack of childcare as a leading cause. In 2017, 12,773 lowa women reported not working full time because of issues with childcare.¹² For those who do work, insufficient or unreliable childcare leads to other negative consequences.

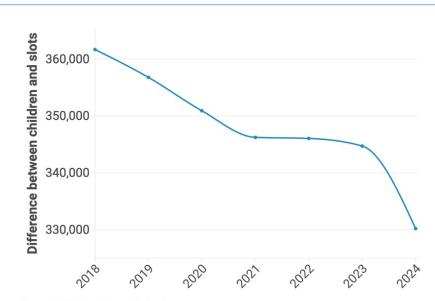


FIGURE 1. DIFFERENCE BETWEEN IOWA CHILDREN AND CHILDCARE SLOTS, 2018-2024

Source: Iowa Child Care Resource & Referral

[‡]See Appendix C, table 9.

Surveys suggest nearly half of parents miss work regularly due to childcare issues.¹³ According to previous research by IWF, childcare inaccessibility causes nearly two weeks of work absences for parents each year and is one of the top three reasons for employee turnover.¹⁴ These issues stemming from lack of childcare translate into missed opportunities for women and broader costs to the state's economy. Each year, the problem causes each working parent to lose an average of \$3,350 in annual earnings and Iowa businesses to lose an average of \$1,150 per working parent.¹⁵ Outside research has found it also causes the state's economy an estimated \$675 million in foregone GDP.¹⁶ While these data evolve, current data continue to point to the need for childcare solutions. Using the latest available data on childcare accessibility and labor force participation, the remainder of this section quantifies the current magnitude of the childcare shortage in Iowa and its impact on the state's labor force, demonstrating the ongoing need for solutions.

Lack of access to childcare inhibits economic advancement for women

As of October 2024, Iowa has an estimated 507,254 children aged 0-12 while it has only 177,053 operational childcare slots categorized as licensed centers and preschools, registered child development homes, or childcare homes.¹⁷ Assuming all children ages 0-12 need a slot at a licensed childcare provider, Iowa's childcare market has a deficit of 330,201 licensed childcare slots, as seen in figure 1.¹⁸ However, assessing the shortage of childcare slots at 100% demand does not accurately reflect the personal choices families make in raising their children.

Families have a wide range of options, constraints, and preferences. Dual parent households may choose between one or both parents participating in the labor force depending on financial constraints and personal preferences. Single-parent households, on the other hand, more often depend on some form of childcare. Parents may also rely on a babysitter, family member, or another source of childcare that does not appear in the state licensed childcare data. Yet regardless of household structure, the data show childcare access most impacts mothers with minor children. This demographic has a labor force participation rate 3.7% lower than the male population in Iowa.¹⁹ Mothers with children face greater limitations on their ability to enter or reenter the workforce due to childcare constraints.

Table 7 breaks down county level childcare deficits based on varying levels of childcare demand for the entire state of lowa, the ten most populous counties in lowa, and the counties with participating CSF pilot programs. The demand level represents the percent of parents who would use childcare if cost and access were no obstacle. The 76% and 67% demand levels are estimates provided by the Iowa Child Care Connect dashboard.²⁰ The first reflects the demand level for households with children under the age of six with all parents in the labor force. The second reflects the demand level for children with caregivers in the workforce or other needs.²¹ The lowest assumption, 37%, is derived from a 2015 Gallup poll on the percent of unemployed women with children under 18 who would prefer to work outside of the home.²²

County	76% Demand	67% Demand	37% Demand
State of Iowa	250,235	220,602	121,825
Allamakee*	1,332	1,175	649
Black Hawk	9,796	8,636	4,769
Cerro Gordo*	2,772	2,443	1,349
Dallas	8,624	7,603	4,199
Dubuque*	7,095	6,255	3,454
Hamilton*	1,250	1,102	609
Howard*	833	734	406
Johnson*	9,401	8,288	4,577
Linn*	15,492	13,657	7,542
Marion*	2,624	2,313	1,277
Mitchell*	926	817	451
Polk	38,024	33,521	18,511
Pottawattamie	7,709	6,796	3,753
Scott	14,121	12,449	6,875
Story	5,102	4,498	2,484
Woodbury	8,974	7,911	4,369
, urce: Iowa Child Care Resource	& Referral.		
	mand assuming no price constraint		

Of the ten most populous counties and the CSF pilot program counties in Iowa, not one reports a childcare surplus at any demand level. This shortage forces parents to seek alternatives to care that deviate from their preferences. This could mean missing work, adjusting work schedules, working from home, or dropping out of the workforce altogether to care for children. In some cases, a relative or non-relative other than the immediate parent may assume the role of a childcare helper. The Census Bureau's Household Pulse Survey (HPS) reported that from September to December 2022, about 21.8% of parents reported childcare was provided by a relative other than the parent; an additional 5.4% stated they used non-relative care.²³ However, not all parents have an opportunity to rely on a relative or nonrelative for childcare. The data in table 7 show—even assuming the low end of the demand range—over one-hundred thousand Iowa children lack consistent and reliable access to childcare. This reduces economic opportunity for tens-of-thousands of Iowa parents, especially mothers.

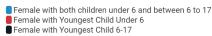
Women with children participate in the labor force at lower rates

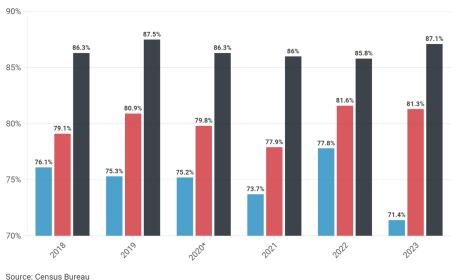
lowa boasts the ninth highest labor force participation rate (LFPR) in the nation.²⁴ Labor force participation among mothers has consistently improved since 2018. In 2023, Iowa mothers with children only under 6 and with children only 6 to 17 both had labor force participation rates above 80%, but the former worked at a lower rate than the later. Figure 2 shows how the LFPR has changed over time for each of these groups of mothers.

Although in 2023 Iowa ranked in the top five highest LFPR states for females with a child in only age group as shown in figure 3, the average labor force participation rate for mothers of children under 6 was 5.8% lower than for mothers with older children. Iowa has the 25th greatest difference between these two subgroups nationally. While most mothers participate in the labor force. mothers with younger children were 7% less likely to enter the labor force last year than mothers with older children. Mothers with both children under 6 and between 6 and 17 had a LFPR 15.7% lower than mothers with only older children, meaning they were 18% less likely to enter the labor force last year.

Figure 3 visualizes how all 50 U.S. states rank by labor force participation rates for mothers with children only under 6 and children only 6 to 17. Each dot represents a state, and each color represents a region of the United States as defined by the Census Bureau. The size of each dot reflects

FIGURE 2. LABOR FORCE PARTICIPATIONS RATES FOR MOTHERS, IOWA, 2018-2023

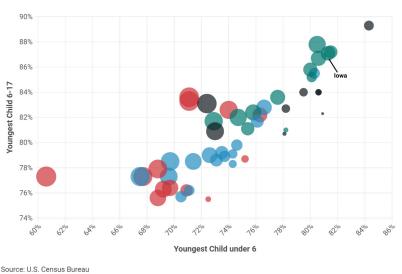




*Due to Covid, there was not a 1-year ACS estimate in 2020, so a 5-year ACS estimate was used.

FIGURE 3. LABOR FORCE PARTICIPATION RATES FOR MOTHERS BY AGE OF YOUNGEST CHILD, 2024

U.S. Region 🔵 South 🛑 West 🌑 Northeast 🌑 Midwest

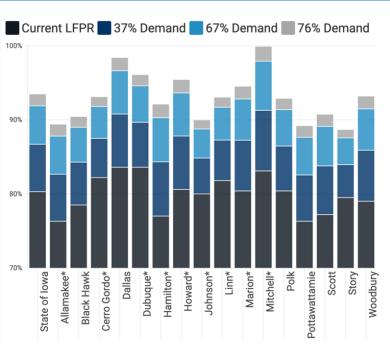


where each state ranks in difference for LFPR between these two subgroups. As a dot becomes larger, the state has a greater difference between the LFPR of mothers with younger children versus older children. For example, Alaska is the largest point—ranking 50 for the highest difference in LFPR at 16.7%. Iowa ranks 26 with an LFPR difference of 5.8%.

If every mother with children had access to childcare and chose to enter the workforce, CSI estimates 150,244 additional mothers could enter the workforce. This assumes no barriers in terms of access, guality, or cost and 100% demand from mothers of childcare aged children. Of course, full demand is impossible given financial constraints and personal preferences. Childcare does have a cost, and some mothers would choose not to work even if childcare were not an obstacle. As explained in the subsection "Lack of access to childcare inhibits economic advancement for women." one can assume some level of demand below 100%. Using the same hypothetical demand levels shown in table 7, figure 4 shows how Iowa's female LFPR would change as mothers entered the workforce if childcare were not an obstacle.^s

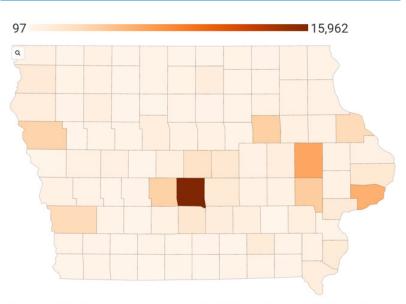
Figure 5 shows how many mothers would enter the workforce in each county if childcare were not an obstacle. The data show Iowa does not have enough quality affordable childcare slots to meet the demand of parents who would like to utilize childcare and enter the workforce. Thus, if childcare became more accessible and affordable, more Iowa women would enter the labor force or could work longer and more consistent hours.





Source: U.S. Census Bureau, Iowa Child Care Resource & Referral *County that participated in the CSF pilot program. Note: Demand represents the % of mothers who would enter the workforce if childcare were not an obstacle.

FIGURE 5. HYPOTHETICAL MOTHERS ADDED TO THE LABOR FORCE IF CHILDCARE WERE NOT AN OBSTACLE, IOWA, 2023



Source: U.S. Census Bureau, Iowa Child Care Resource & Referral Note: Assumes 67% of mothers would enter the workforce if childcare were not an obstacle.

^s See table 10 in Appendix C for hypothetical total number of women who would enter the workforce at each demand level if childcare were not an obstacle.

THE ECONOMICS OF CHILDCARE

At its heart, childcare is an economic issue. Finding a sustainable resolution to Iowa's childcare shortage requires understanding the problem through an economic lens. The subsection of this report on childcare access, "Lack of Childcare Hurts Iowa Women and Businesses," calculates the shortage of slots based on hypothetical demand at a price of \$0. In other words, it captures the number of childcare slots needed to meet demand if price were not an obstacle. However, in practice childcare comes at a cost; supply and demand set the price of childcare and drive the market. The data in that subsection indicate current market conditions result in thousands of women missing work or staying out of the workforce entirely due to expensive or insufficient childcare. To change that outcome, market conditions must change. Attempting to alter outcomes without considering market forces is like swimming upstream. It may work for a while, but it will not prove sustainable over the long term.

Childcare costs and family income determine demand

The demand for childcare generally comes from parents, particularly those in the workforce or wishing to enter the workforce. Every parent has different personal preferences and economic incentives that dictate their level of demand. As discussed in the previous section, "Lack of Childcare Hurts Iowa Women and Businesses," some parents have zero demand even at a price of \$0. Some mothers, for example, may choose to stay home with their kids as a personal choice. For most parents, their demand for childcare is an economic decision determined by their personal marginal benefit of childcare. In a study published this June, economists at Ball State University explained, "[T]he share of parents who choose full-time childcare outside the home is fundamentally an economic choice...reflecting just a few variables—the family's total income, the cost of childcare, and the taxation of earned income at the household rate."²⁵ These variables determine a family's marginal benefit from using childcare. When deciding whether to use childcare and work or stay home with kids, parents consider how much income they will have left after paying taxes and childcare costs. Figure 6 shows the real net cost or benefit of going from a single- to dual-income household under different example scenarios.

Figure 6 illustrates how the size of the second income and the number of children who need childcare are the biggest determinants of whether using childcare to enter the workforce makes sense from a financial perspective. The red line represents a household with two working parents, each earning \$100,000 per year. Giving up one parent's income would cost the family \$100,000 less the difference in tax liability. If they have an infant, a two-year-old, and a five-year-old, their childcare costs with an HHS licensed childcare center would equal about \$34,000 per year.²⁶ In 2025, the family will pay an effective tax rate of approximately 23% in combined state and federal income taxes for every additional dollar earned by the second parent. Thus, having one parent exit the labor force to stay home with kids will result in a net gain of about \$43,000 to the household. For this family, childcare at average prevailing prices makes economic sense, assuming the parent is willing to work full time for a year for an effective net income of \$39,000. However, at a combined gross income of \$200,000 per year, this couple makes far more than the typical lowa household. The math does not work out the same for most lowa families.

The median lowa household earned about \$80,000 per year in 2023.²⁷ Assume in 2025 the median household income rises to \$85,000 with the mother earning \$40,000 and the father earning \$45,000 that year. If this median family has the same family size and child ages as the family in the first example, the household will have less total disposable income if they put their children in childcare so the mother can work. The blue line in figure 6 illustrates this family's situation. With the loss of the federal EITC and other tax implications from gaining the mother's income, the family will pay an effective combined state and federal tax rate of about 25% on the additional dollars the mother earns. The cost of childcare will then consume 113% of the mother's after-tax income. The result of the mother entering the workforce is a loss of about \$4,000 dollars in disposable income for the family. However, this mother might want to work rather than stay home with kids if she had the choice. If the family could find reliable, guality

childcare for \$20,000 per year, the mother might enter the labor force. Alternatively, if she could earn \$60,000 and pay \$40,000 for childcare, she might choose to enter the labor force. Either way, the economics of the situation must change for this family to have demand for childcare and for the mother to enter the workforce.²⁸

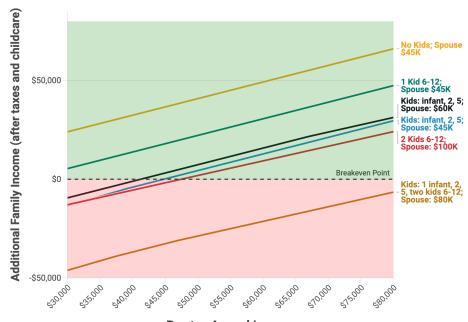


FIGURE 6. NET INCOME AFTER TAXES AND CHILDCARE FOR SECOND EARNER IN HOUSEHOLD

Pre-tax Annual Income

Any number of factors might enter the equation for families across lowa deciding whether to use childcare, and every family places a different value on different perceived goods. Those personal values and decisions determine the real demand in the market. In the first example, the mother who can earn \$100,000 per year—netting \$39,000 after childcare and taxes—might decide staying home with her kids is more valuable than the money. Alternatively, the mother in the second example may choose to enter the workforce and use childcare even if it means losing money on net right now, because she wants to pursue a career and increase her earning potential over time. Another parent might have grandparents watch the kids while she works rather than incur the expense of a childcare center, though this choice may lead to work disruptions and loss of pay when the grandparent is not available. Every decision has pros and cons, some measurable and some subjective. However, every situation is unique, and parents' decisions should be respected.

Insufficient childcare supply suggests a market failure

The supply of childcare can come from parents staying home with their kids, relatives watching kids while parents work, or kids attending school. However, this report focuses primarily on the supply of childcare from providers such as registered child development homes, home-based providers, preschools, and licensed childcare centers. Most of the increase in supply will come from these types of providers creating more slots. What this report identifies as a "shortage" of childcare slots represents the number of registered or licensed slots needed to provide reliable care for all parents who might use it if it were free. In practice, childcare has a cost, and providers will only offer services if they can make a profit—or cover their expenses in the case of non-profits. In a perfectly efficient market, childcare theoretically remains fully supplied at the market equilibrium price. When shortages appear, they resolve themselves through natural market forces. Prices rise, reducing demand and encouraging more supply to come online until the market settles on a new price equilibrium. However, some economists argue this dilemma exemplifies a classic market failure.²⁹

Increasing slots requires capital investment via labor input costs, facility costs, and more. To make those increased capital costs work from a business perspective, they must increase revenue, which generally means raising tuition for childcare. However, Iowa families already struggle to afford childcare at current prices.³⁰ In addition, increasing the supply of childcare puts downward pressure on prices, making the investment more difficult to justify from a business perspective. If providers cannot charge more for childcare, they generally cannot and will not deploy the capital necessary to create new slots. As explained in the previous subsection, "Insufficient childcare supply suggests a market failure," current prices reflect what parents are willing to pay for services, suggesting providers cannot raise prices and stay in business. The existence of unresolved shortages where supply does not increase to meet demand suggests a market failure. In a 2015 issue of the Utah Law Review, Meredith Johnson Harbach explains, "[M]arket failure occurs when a market produces too much or too little of a good or service as compared to what would be best from a societal perspective."³¹ She and others conclude America's childcare market failure in childcare.³³ Nonetheless, where market failures exist, some form of intervention in the market may resolve the failure, bringing supply up to optimal levels at the optimal price.

Solutions must conform to the childcare business model

To effectively increase the supply of childcare to its optimal level, any intervention must first consider the inputs that comprise the childcare business model. A 2022 report Common Sense Institute Colorado published in partnership with EPIC (Executives Partnering to Invest in Children) identified staffing and wages, debt, occupancy and enrollment, and property taxes as the primary expense categories for childcare businesses. It also identified these expenses for startup and continued operation:

- Capital Expenditures
- Commercial Property Taxes
- Debt
- Equipment
- Food (if provided)
- Insurance
- Professional Services
- Rent
- Software
- Staffing and Administrative Wages
- Staffing Background Checks
- Staffing Benefits
- Staff Training and Development
- Technology
- Utilities

The primary source of revenue for childcare businesses is tuition paid by the families who use childcare. For an intervention to close the childcare supply gap effectively and sustainably, it must either reduce expenses or increase revenue for childcare businesses. The needs of each individual community and its childcare providers may vary. Some might need larger facilities while others might benefit more from property tax relief. For this reason, solutions work best when targeted for local needs. However, the need for higher wages to attract and retain workers appears nearly universal. The CSI Colorado report identified staffing and wages as the largest expense for childcare businesses by far, comprising 50 to 70% of a typical provider's expenses. In its 2023 Iowa Child Care Workforce Study, the Iowa Association for the Education of Young Children found, "Across all data collection efforts, compensation was identified as the primary concern for sustaining our childcare workforce."³⁴ However, increasing wages generally requires providers to increase tuition, thus compounding the issue of unaffordability.

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Solutions must increase supply without raising costs for parents

In surveys conducted by the Iowa Women's Foundation, parents overwhelmingly reported accessible, affordable, and quality childcare was a primary barrier to their success in the workforce. The Iowa Women's Foundation reports that in Iowa, the annual average cost of infant care in Iowa is 18.4% higher than in-state tuition at a four-year public college, 14.1% higher than annual housing costs, and 12.3% higher than a year's worth of rent. With a median family income of \$67,854, childcare takes up roughly 15.3% of a median family's income, 8.3% higher than the 7% recommended by the U.S. Department of Health and Human Services.³⁵ The Economic Policy Institute (EPI) estimates only 10.2% of families in Iowa can spend 7% or less of their family income on childcare.³⁶ If the remaining 89.8% were able to cap childcare expenses at 7% of their income, EPI estimates families would save an average of \$5,381 extra dollars per year and generate an additional \$1.7 billion to Iowa's economy. Given the high costs of childcare, IWF reports 85% of parents would leave their current jobs for one with more family-friendly benefits. This is understandable given that in roughly 75% of Iowa households with children under 6 all parents work outside the home.

The Early Child Care & Learning Council found the shortage of childcare is one of the top three reasons for workforce turnover.³⁷ When local companies invest in childcare solutions, employee absences decrease by 30% and job turnover declines by as much as 60%. The IWF has found the right solutions may be different for every circumstance but could include flexible schedules or increased wages for employees and childcare workers. The foundation has seen through their childcare initiatives that employees and businesses experience improvements when resources go into improving accessibility, affordability, and quality of childcare.

Thanks to staffing shortages, Iowa childcare centers often operate below full capacity. According to Iowa Code, childcare facilities are only allowed to accept children at a ratio to their employee count. For instance, facilities need at least one employee to care for seven two-year-old children.³⁸ Yet, without a livable wage, childcare workers have no incentive to stay. On average, childcare workers are paid \$3.90 less than the average living wage for a single adult in the state per hour.³⁹ This leaves them as the third lowest paid occupation in Iowa, with an average hourly starting wage of \$10.89. As a result, many childcare workers rely on public assistance programs; 30% utilize Medicaid and 40% rely on at least one public benefit.⁴⁰

Childcare facilities must pay their workers more to retain workforce, but this wage increase would burden families with higher childcare tuition costs, compounding the affordability issue. This problem points to the possibility of a market failure described under the subsection of this report entitled "Insufficient childcare supply suggests a market failure." Intervention that allows staff compensation to increase without the need to raise tuition can help resolve the market failure in childcare. If providers could increase compensation without passing the cost on to consumers, they could better attract and retain a workforce without pricing more parents out of the market. The success of wage enhancement through lowa's CSF pilot demonstrates how this approach can lead to a greater supply of affordable childcare, creating greater economic opportunity for women. More work could be done to scale up the CSF and monitor its effectiveness as it scales. Additionally, other solutions should also be considered under the CSF framework for increasing the supply of affordable childcare depending on the unique needs of each community.

NEXT STEPS

Based on available data, Common Sense Institute's analysis finds Iowa's CSF pilot program had the desired effect. The public-private partnership gave funding to childcare providers, which they had the flexibility to use for different types of wage enhancement. This enabled them to hire and retain more childcare workers, which translated into more childcare slots and more consistent care. The expansion in access to childcare provides the opportunity for more women to enter the workforce, filling jobs and giving them more economic stability. The initial pilot program and analysis thereof found in this report offer enough evidence of success to support an expanded pilot with a larger treatment group. However, as the program scales up, better data collection would allow for a more robust analysis that could provide even more confidence in the reliability of CSI's initial findings. The pilot's success also warrants exploring additional options to expand the CSF to fill other needs beyond wage enhancement.

Run a second CSF wage enhancement pilot with better data collection

For the next pilot program to provide additional information and evidence on the program's efficacy, the state must design it from the beginning with a keen eye toward analyzing outcomes following its conclusion.⁴¹ First, the trial should include more treated communities. Of the 89 remaining untreated counties in Iowa, CSI recommends launching the pilot in at least 40 but no more than 45. From a research perspective, ideal conditions for analysis would require as much randomization as practicable in the selection of the new pilot communities. They should vary in characteristics like population, geography, industry composition, etc. Additionally, new analysis should consist only of first-time participants of the CSF program. While policymakers may want to continue funding 2024 pilot programs to sustain their success, those communities can no longer provide an untreated baseline for observation.

To achieve a more robust and reliable analysis, the state will need to collect better data from the new pilot communities—and ideally from untreated counties also. Because existing state data is collected at the county level, all pilots should be county-wide. This will prevent cases like the Mt. Vernon & Lisbon where program success could not be uniformly evaluated.** Every childcare center that will receive funds should provide detailed "before" and "after" data on the following:

- 1. Income statements
- 2. Payroll records with hourly wage and hours worked for each employee
- 3. Total FTE's each month by employee position (director, licensed teacher, etc.)
- 4. Line-item record of expenses associated with every CSF dollar spent, categorized as "wage enhancement" or "administration"
- 5. Breakdown of services provided daily, including—
 - > Total number of children by program and age
 - > Total "child hours" of care provided by age
- 6. Breakdown of tuition costs by age and program

The county economic development agency or chamber of commerce overseeing each pilot should collect this data from any childcare provider who will receive program funding for the year directly preceding the program and for the year of the program. Eligibility of individual providers to receive CSF dollars should be contingent on submitting before data, and providers should not receive the final quarter reimbursement of expenses until they submit the after data. The contract should stipulate that specific program information and data will not be shared publicly. Rather, the data will only be used for evaluation purposes. Only the aggregate of data from all programs within each pilot community will be published in a public report, which will never include private or sensitive information like employee names without express permission from the party.

Consider expanding CSF beyond wage enhancement

lowa has seen clear evidence of success through locally directed and locally supported childcare solutions funds that enhance childcare worker wages. Wage enhancement achieved its desired effect, but if the money dries up, the impact will reverse, taking the pilot communities back to square one. Common Sense Institute's economic impact analysis found sustaining the program over the long term through 100% private sector support after year one will return multiple fold back to the private sector what it invested. However, several pilot communities provided feedback, saying the state match was essential in garnering private sector investment. Ideally, state seed money would draw in initial private dollars, and the success of the program would persuade those investors to continue their investment with or without a state match. Either way, the program must sustain its success before it can grow. As of publication of this report, only Dubuque has raised enough private funds to sustain its existing wage enhancement program for another year.

^{**} See "Exclusion of Pilot Communities in Analysis" under Appendix B.

Ultimately, CSF funds are intended to be used for fluid childcare needs beyond just wage enhancement. At the conclusion of the SFY 2024 CSF pilot program, Cerro Gordo County participants reported the wage enhancement helped recruit and retain more qualified staff, but they added, "We still have limited capacity only due to space, not staffing." Once a community has reached sustainability with the wage enhancement component of its CSF, additional dollars could help fill other needs such as expanding facilities. Others shared similar experiences. The Dubuque pilot provided this feedback: "While our wage enhancement effort has had extremely positive results, a larger effort on shared services, benefits and career advancement must be devised." Iowa companies echoed the desire for shared services. Many are ready and willing to invest in a state-level solutions funds, but they cannot administer and collect data on their grant dollars, as this would take a full-time person. The lessons learned and accomplishments achieved through IWF's emphasis on the Childcare Solution Funds propels IWF to be a perfect location to house and re-grant out corporate childcare solution funds. This is a model that can then be replicated across the state, and even the nation.



APPENDIX A. ACRONYMS

- ARPA American Rescue Plan Act
- CCR&R Iowa Child Care Resources & Referral
- **CSF** Childcare Scholarship Fund
- **CSI** Common Sense Institute
- **DID** Difference-in-difference
- ECI Early Childhood Iowa
- EITC Earned Income Tax Credit
- **EPI** Economic Policy Institute
- **EPIC** Executives Partnering to Invest in Children
- HHS Iowa Department of Health and Human Services
- HPS Household Pulse Survey
- IWF Iowa Women's Foundation
- **LFPR** Labor Force Participation Rate
- SFY State Fiscal Year



This appendix includes relevant notes on CSI's methodology for its analysis and economic impact simulation of the CSF pilot program.

Exclusion of Pilot Communities in Analysis

Common Sense Institute's analysis of the pilot programs includes only five of the ten pilot communities: Allamakee County, Cerro Gordo County, Dubuque County, Howard County, and Mitchell County. The three pilot communities that did not report as of writing were excluded. Without reporting, CSI cannot know whether data from those communities are reflective of the impact of the pilot program. Hamilton County was also excluded, as they launched a CSF with private dollars prior to the start of the HHS funded CSF pilot program. The data before treatment for this community is therefore unreliable as a baseline for analysis. The Mt. Vernon/Lisbon pilot community was also excluded because their pilot did not include the entire county. These cities are in Linn County whose major population center, Cedar Rapids, was not part of the pilot program, making the available county-level data from CCR&R incomparable to the other pilot communities.

Difference-in-Difference Estimates

Table 8 shows the coefficient estimates for the four models estimated using the difference-indifference framework. For model four—natural log of childcare slots—CSI also used the natural log of the population 12 & under variable. Significance levels of the coefficient estimates are reported in the table.^{††}

Table 8. Difference-in-Difference Coefficient Estimates						
	Per-Capita Slots	Slots	Natural Log of Per-capita Slots	Natural Log of Slots		
Intercept	.2914**	1504.801	-1.2795**	10.1131**		
Post	.0095	8.5514	.0359	.0237		
Interaction of Treat and Post Dummies	.0215**	139.0744**	.0590*	.0582*		
Population 12 & Under	-	.0542	-	4340		
*p<.10 **p<.05		<u>.</u>	•	•		

^{††} Because CSI used the entire population of counties as opposed to a random sample of control and pilot counties, statistical inference in this example has little value. CSI chose to report significance levels for transparency.

Economic Impact Simulation

CSI estimates the number of women added to the labor force as the ratio of childcare slots needed for the under 12 population and the county-specific rate of children per mother. Across the whole state on average, for example, every 2.2 new available child slots would allow one mother to enter or re-enter the workforce. While some of these women may choose to remain outside of the workforce for reasons unrelated to childcare, previous research conducted by the Iowa Women's Foundation identified a lack of affordable childcare as a primary barrier to women entering the workforce, suggesting many of them would enter the workforce if they could.⁴² Data on the number of mothers comes from the U.S. Census Bureau and assumes 72% of reported mothers with children under 17 have children under 12. Data on the number of children under 12 comes from county-level reports by the CCR&R. See Appendix C for CSI's exact estimates.

In the first year of CSI's economic impact assessment, the simulation assumes a CSF funding allocation across lowa directly proportional to the average funding per child 0- to 12-years-old in the five pilot communities included in CSI's analysis. It assumes the same average ratio of expenditures toward wage enhancement versus administrative costs as seen in the pilot communities for all counties across the state. After the first year, the simulation adjusts the cost of maintaining the wage enhancement program based on the wage growth in the social services sector using forecast estimates from REMI. It adjusts the administrative costs by an estimated annual inflation rate of 2%. As with the pilot program, the simulation assumes the state provides seed money for the program in year one with private dollars to sustain it starting in year two. It also assumes businesses contribute to the program as intended to sustain it through the forecast period. Therefore, the simulation assigns the first-year cost in the model as an increase in state spending in year one and future years as an increase in production costs for the private sector. These annual cost increases do not represent an expansion in the program but rather the growth in cost necessary to maintain the program at the same level of efficacy.

APPENDIX C. ADDITIONAL TABLES

Table 9. Iowa Children 0-12 and Childcare Slots, 2018-2024						
Year	Number of children (0-12)	Number of Child Care Slots	Difference between children and slots	Difference YoY Change		
2024	507,254	177,053	-330,201	-14,511		
2023	521,920	177,208	-344,712	-1,339		
2022	521,621	175,570	-346,051	-181		
2021	519,713	173,481	-346,232	-4,677		
2020	524,162	-350,909	173,253	-5,878		
2019	526,732	169,945	-356,787	-4,890		
2018	529,076	167,399	-361,677			
Source: Iowa Child Care R	lesource & Referral.					

County	76% Demand	67% Demand	37% Demand
State of Iowa	116,265	102,489	56,575
Allamakee*	459	404	223
Black Hawk	4,452	3,925	2,167
Cerro Gordo*	1,259	1,110	613
Dallas	4,312	3,801	2,099
Dubuque*	3,378	2,978	1,644
Hamilton*	595	524	289
Howard*	361	318	176
Johnson*	4,700	4,143	2,288
Linn*	7,376	6,503	3,591
Marion*	1,248	1,100	607
Mitchell*	462	408	225
Polk	18,106	15,962	8,814
Pottawattamie	3,351	2,954	1,631
Scott	6,723	5,927	3,273
Story	2,550	2,248	1,241
Woodbury	4,078	3,595	1,985
rce: U.S. Census Bureau; Iowa	a Child Care Resource & Referral.		
e: Demand represents the %	of mothers who would enter the	workforce if childcare were not an	obstacle.

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County	Present	76% Demand	67% Demand	37% Demand
State of Iowa	80.30%	93.46%	91.90%	86.70%
Allamakee*	76.30%	89.38%	87.81%	82.65%
Black Hawk	78.50%	90.41%	89.00%	84.29%
Cerro Gordo*	82.20%	93.09%	91.80%	87.50%
Dallas	83.60%	98.38%	96.63%	90.79%
Dubuque*	83.60%	96.07%	94.60%	89.67%
Hamilton*	77.00%	92.09%	90.29%	84.33%
Howard*	80.60%	95.41%	93.64%	87.82%
Johnson*	80.00%	89.95%	88.77%	84.84%
Linn*	81.80%	93.03%	91.70%	87.27%
Marion*	80.40%	94.50%	92.82%	87.25%
Mitchell*	83.10%	99.89%	97.93%	91.28%
Polk	80.40%	92.86%	91.38%	86.46%
Pottawattamie	76.30%	89.17%	87.65%	82.56%
Scott	77.20%	90.72%	89.11%	83.78%
Story	79.50%	88.65%	87.57%	83.95%
Woodbury	79.00%	93.17%	91.49%	85.89%
ource: U.S. Census Burea	u; Iowa Child Care Resour	ce & Referral.		
	etical demand assuming r	o price constraint.		
County that participated	in the CSF pilot program.			
		male LFPR by Level of		
County	76% Der		% Demand	37% Demand
State of Iowa	13.96		12.40%	7.20%
Allamakee*	13.08		11.51%	6.35%
Black Hawk	11.919		10.50%	5.79%
Cerro Gordo*	10.89		9.60%	5.30%
Dallas	14.78		13.03%	7.19%
Dubuque*	12.47	%	11.00%	6.07%

County	76% Demand	67% Demand	37% Demand
State of Iowa	13.96%	12.40%	7.20%
Allamakee*	13.08%	11.51%	6.35%
Black Hawk	11.91%	10.50%	5.79%
Cerro Gordo*	10.89%	9.60%	5.30%
Dallas	14.78%	13.03%	7.19%
Dubuque*	12.47%	11.00%	6.07%
Hamilton*	15.09%	13.29%	7.33%
Howard*	14.81%	13.04%	7.22%
Johnson*	9.95%	8.77%	4.84%
Linn*	11.23%	9.90%	5.47%
Marion*	14.10%	12.42%	6.85%
Mitchell*	16.79%	14.83%	8.18%
Polk	12.46%	10.98%	6.06%
Pottawattamie	12.87%	11.35%	6.26%
Scott	13.52%	11.91%	6.58%
Story	9.15%	8.07%	4.45%
Woodbury	14.17%	12.49%	6.89%
Source: U.S. Census Bureau; Iowa	a Child Care Resource & Referral.		
Note: Table shows hypothetical o	demand assuming no price constra	aint.	
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