

Addressing Iowa's Child Care Crisis through Data-Driven Solutions



HOW EARLY CHILDHOOD CARE AND EDUCATION IMPACTS A STATE'S ECONOMY

Early childhood care and education (ECE) critically impacts child development—90% of a child's brain development happens during their first five years. Quality care during this time is essential for a child's lifelong success. Yet, a lack of quality care abounds and also affects family livelihoods, community and business growth, and state economies. Many states today struggle with child care shortages that already existed but were brought to unprecedented levels by the COVID-19 pandemic. In addition, some states haven't been able to address these issues because they're overwhelmed by workforce challenges.

Iowa Governor Kim Reynolds created the Child Care Task Force after her Economic Recovery Advisory Board identified lack of access to affordable quality child care as a major barrier to the state's workforce recovery post-COVID. The task force reported that the state loses \$935 million annually in tax revenue, employee absences, and turnover due to the child care crisis—and that's just the tip of the iceberg.

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IOWA'S VISION FOR THE CHILD CARE CONNECT INITIATIVE

Iowa's Department of Health and Human Services (HHS) knew they had a child care shortage but didn't know its scope and had limited details with which to make data-informed decisions. When they attempted to seek insights from their data, they realized they couldn't look at it holistically.

Like most states in the early childhood mixed delivery system, Iowa's data resided in multiple places. Multiple private businesses in the child care landscape had supply data, while the state held information about child care subsidies and funding. The disparate systems couldn't easily communicate, resulting in an incomplete data picture that was neither accurate nor timely. There was no way to view or analyze it in its entirety.

HHS had a vision of implementing a platform capable of integrating child care management software (CCMS) data directly from providers into subsidy, availability, and enrollment systems, as well as a family-facing child care search portal with real-time vacancy information.

We collaborated with HHS and Iowa State University (ISU) to build the operational data store necessary to make these outcomes possible, and then bring that vision to life.



IOWA'S CHILD CARE PROBLEM

Early childhood education plays a critical role in a child's development and sets the foundation for all types of learning: literacy, mathematics, and behaviors. Caretakers who work outside (or from) the home need quality care for their children during working hours. Meanwhile, 23% of Iowans (and 35% of rural Iowans) live in areas with a shortage of licensed or registered child care providers. In 2021, 14% of Iowa children ages five and younger had a family member who quit, changed, or refused a job because of child care challenges such as lack of availability or affordability.

The median monthly cost of full-time child care for one child in Iowa is \$1031, which is more than housing for the average state resident. Some families qualify for subsidies, such as Child Care Assistance, to help offset the cost, but providers were finding it difficult to participate in those programs due to the volume of tracking, reporting, and bookkeeping required.

A [2020 Iowa State University report states](#) that Iowa's child care shortage causes the following losses throughout the state:

- Working caretakers lose an average of \$3350 annually.
- Businesses lose an average of \$1150 annually per working caretaker.
- Taxpayers lose an average of \$630 per working caretaker annually in income and sales tax.



When we remove obstacles to high-quality, affordable child care, our families can nurture their kids while retaining maximum freedom to enter and remain in the work force.

— IOWA GOVERNOR KIM REYNOLDS

Announcing the Child Care Task Force in response to the top recommendation of the Governor's Economic Recovery Advisory Board





HOW C3 TECHNOLOGY HELPS FILL IN THE GAPS

The Child Care Connect (C3) system provides the technology that supports all other parts of the solutions—those that exist now and those that will be built in the future. We collaborated with HHS and ISU to build an operational data store (ODS) with an interface connecting provider CCMSs on one side and state systems on the other.

The data store holds and exchanges data from multiple sources, including providers and HHS. It provides the holistic capabilities the state knew they were missing and enables analysis and visualization of data from the entire child care ecosystem at once. Cloud-based C3 has the capability to add additional systems, integrate them, and create new visualizations as needed.

The greatest challenge to the project was building an all-inclusive solution enabling multiple private business software platforms (providers' chosen CCMSs) to feed relevant information into state systems while preserving business privacy. The state wanted to ensure it was as easy as possible for providers to share their information, because the system derives the most effective solutions when it uses accurate, timely data. For providers without a CCMS, we devised an easy alternative way to input information about vacancies and desired capacity through a survey conducted via cell phone.

The automated interfacing between private businesses and state systems also removes many of the barriers to subsidy participation. Without numerous extra steps, HHS tracks time and attendance and pays providers serving subsidized families.

Next, the ODS laid the foundation for data visualization that identifies gaps in services, available enrollments, and opportunities for business development. This never-before-available information can be analyzed for insights to help inform policy, thereby building stronger communities.

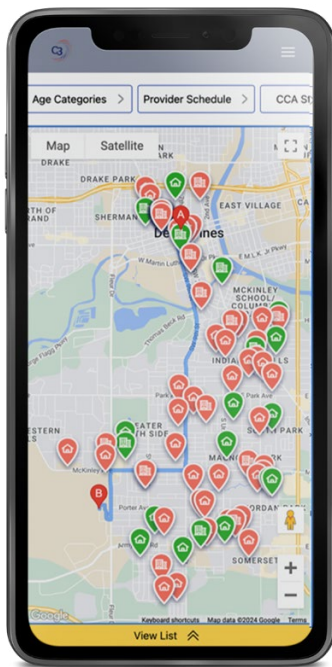
CHILD CARE DASHBOARDS PROVIDE THE BIG-PICTURE VIEW

Iowa was in the same boat as most states in that the specific data of how many seats a child care provider has available didn't exist anywhere in their systems. There were estimates, most of which are only updated annually—not frequently enough for families seeking care within a week.

One of the problems with accurate enrollment numbers is that many state data collection systems—if they gather this data at all—can only count the number of seats a provider is legally allowed to have. They can't change that metric to reflect a provider's preference or current staffing capabilities. Using the legal capacity metric results in overinflation of the real number of available enrollment spots.

The ODS solved the accuracy and timeliness problems, integrating disparate data for a full picture. When stakeholders have access to data that they trust, it opens pathways for real solutions to difficult problems.

We developed early childhood supply and demand dashboards to help decision-makers see where and what types of child care services are needed. With accurate data, the state can identify the number of vacancies in comparison to near real-time demand, identify geographical areas where supply is misaligned with potential economic need, and use that information to build targeted solutions.



IOWA CHILD CARE SEARCH TOOL REVOLUTIONIZES CHILD CARE RESOURCES

The Iowa Child Care Search application is part of HHS's original vision to provide simple-to-use, accurate resources that help families find child care regardless of their technology comfort level.

Iowa Child Care Search is an intuitive, public-facing website application that allows users to search for child care that meets their family's needs. Users begin by inputting addresses for home and work, bringing up a map. The map displays where providers are in relation to the route, and users can even add stops such as carpool pick-ups or school drop-offs. Further refining by selecting the number and ages of children for which they are seeking care. The map shows provider names, with facility type indicated by icon and available slots designated by color.

Clicking on the provider provides further information such as certifications, specialties, subsidy participation, and transportation availability.

The public can access Iowa Child Care Search from several state and associated websites where families are likely to seek child care information, making it an easy-to-find one-stop resource to dramatically reduce the heavy lift of connecting to quality child care.

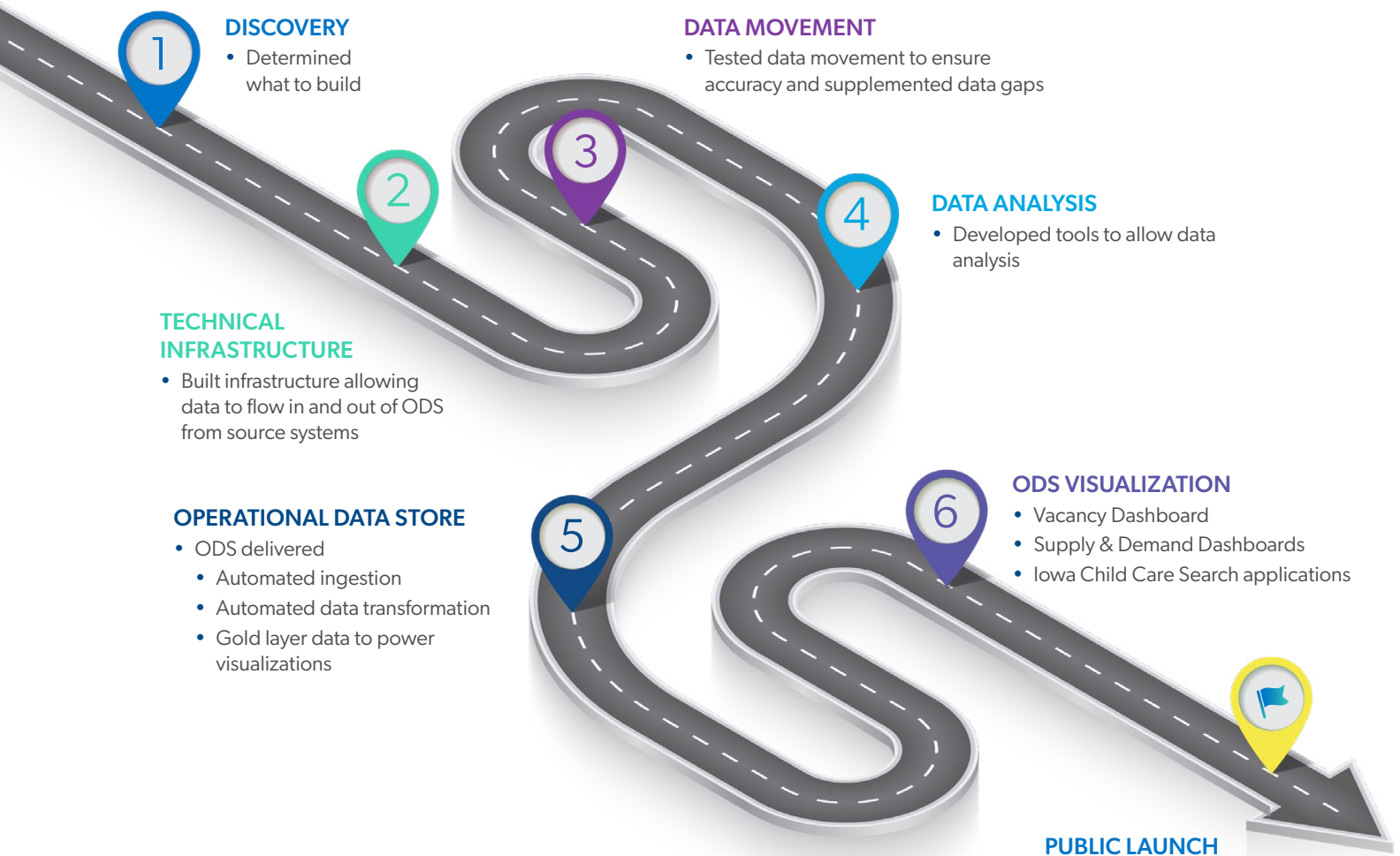
FUTURE POSSIBILITIES C3 CAN SUPPORT

The C3 solution is built on modern architecture that's adaptable, scalable, and facilitates the addition and integration of future systems to continue delivering valuable insights no matter what the next unknown holds.

Future possibilities for expanding C3 could include additional data sources like tax records, home visit records, early intervention efforts, equity dashboards, and information from other family service providers such as WIC, Medicaid, and social workers. The potential for additional technology in the future includes consumer education AI chatbots to help families understand their child care choices and machine learning (ML) to project supply and demand with different assumptions.

Building the operational data store is the first step for any state looking to solve complex problems with data-driven insights to make a difference in the lives of their citizens and communities. And it doesn't mean just starting from scratch. This technology maximizes the capabilities of existing systems and connects them together in a way that can meet your needs both now and in the future.

ODS + Visualizations Journey



SUMMARY

Iowa discovered early on that their workforce problem was first a child care problem. Many states today find themselves in the same situation post-pandemic. Iowa's vision and foresight was the key driver to bringing C3 technology, early child care and education dashboards, and the Iowa Child Care Search tool to life. This work has helped solve today's child care issues, set the foundation to address future concerns, and brought about these benefits:

- ✔ For the first time in the country, a state has an accurate count of the number of available child care seats from engaged providers.
- ✔ Policymakers have access to accurate, timely data that is instrumental for solving multi-layered challenges in the public sector.
- ✔ Families have greater access to affordable, quality child care.
- ✔ Providers have fewer barriers to participate in the subsidy program.

These tools connect families with the perfect fit for their unique requirements through access to near real-time child care openings. They empower individuals to join and remain in the workforce by addressing their child care necessities, fostering a more vibrant and engaged community. And they enhance community appeal to businesses by showcasing child care options conveniently located along popular commuting paths.

EVERY STATE CAN BENEFIT FROM IOWA'S EXPERIENCE

Child care shortages heavily influence the workforce shortage today, and if children don't have quality early education experiences now, that could also influence Iowa's future workforce.

Like most states, Iowa found that their child care availability numbers were much different once data collection accurately reflected providers' current reality. Iowa created an effective solution, but other states risk prolonging their child care/workforce problems if they don't devise an inclusive data solution that is timely and relevant.

We can show you how your state can start gleaning actionable insights from your existing systems and implement scalable, adaptable infrastructure to help you solve whatever the future holds for your constituents. Contact Amy Smigielski on our early education team at asmigielski@resultant.com today.

Iowa's Child Care Search is a platform designed by Resultant and is an iteration of Resultant's Child Care Pulse. Child Care Pulse is a white label platform that states can employ and name accordingly to integrate child care provider data with their state systems and deliver the information working families need, when they need it.

ABOUT RESULTANT

We know solutions are more valuable, transformative, and meaningful when reached together. That's why we build teams comprised of experts in your field who understand the challenges and landscapes you navigate in addition to technology experts. Through outcomes built on solutions rooted in data analytics, technology, and digital transformations, Resultant serves as a true partner by solving problems with our clients, rather than for them.