



Opportunities
Exchange

Building an ECE Technology Infrastructure for the 21st Century

Opportunities Exchange

Fall 2021



Agenda

- ✓ The Big Idea
- ✓ 21st Century Technology
- ✓ From Vision to Implementation
- ✓ Next Steps

Technology is the infrastructure for a better ECE system



Disclaimer

- We will be sharing examples from various CCMS products/vendors during this meeting however these examples are for illustrative purposes only
- OppEx does not endorse any particular software vendor or technology consultant
- Our goal is to highlight what is possible and share conceptual knowledge, so you can use it to make your states CCMS/vendor choices better

**Early Childhood Education
is one of the last sectors
in the U.S. economy
to benefit from a technology
transformation.**

As a result, the entire ECE sector is fragmented in silos and the ECE business is incoherent. It lacks...

- **Operational efficiencies**
- **Data transparency**
- **Business analytics**
- **Effective parent/family communications or data**
- **Realtime data mining to inform progressive ECE policy**

Re-invent vs Re-build

- COVID pandemic had a devastating impact on the child care sector, largely because it was so weak + lacked tech or data capacity.
- The crisis encouraged innovation:
 - Providers have learned to use technology solutions (Zoom, touchless check-in);
 - Pandemic relief \$ can help build a stronger, tech-savvy, more sustainable sector.
- The field needs more than money. It needs strategic investments.



Technology can modernize the ECE sector and help tackle persistent sector issues

- Help families find suitable ECE settings and enroll on-line.
- Save time, improve cash flow + fiscal management so providers have stronger businesses and subsidy billing has fewer errors.
- Shift resources from admin to classroom -- to boost professional development, classroom supervision, and free up \$ for compensation.
- Improve teaching practices with effective use of child assessment data.
- Boost family engagement, communication and information.



The Big Idea

Technology in ECE can be a WIN-WIN-WIN

- **Parents** want real time information and efficient/online transactions
- **Providers** need business software solutions to operate sustainable programs
- **Public Administrators** need accurate, timely, comprehensive data to make decisions about policy and funding

Expanding the use of technology and linking systems can transform the field

How do parents find and enroll in child care?

Parents will likely search online...how do our **publicly funded search options** compare to what is on the market from **commercial vendors**?

- Timely data on available spaces, fees, services, quality, etc.
- Ability to request info – enroll on-line
- Information about subsidy programs or special supports





ChildCare.gov

Wonderschool

Search location

Age

Availability

Number of days/week

Drop-off time

Pick-up time



winnie

Daycare

Preschool



HeadStartProgram.us

Search for local Head Start Programs

Find Head Start

Select a state

Search Now



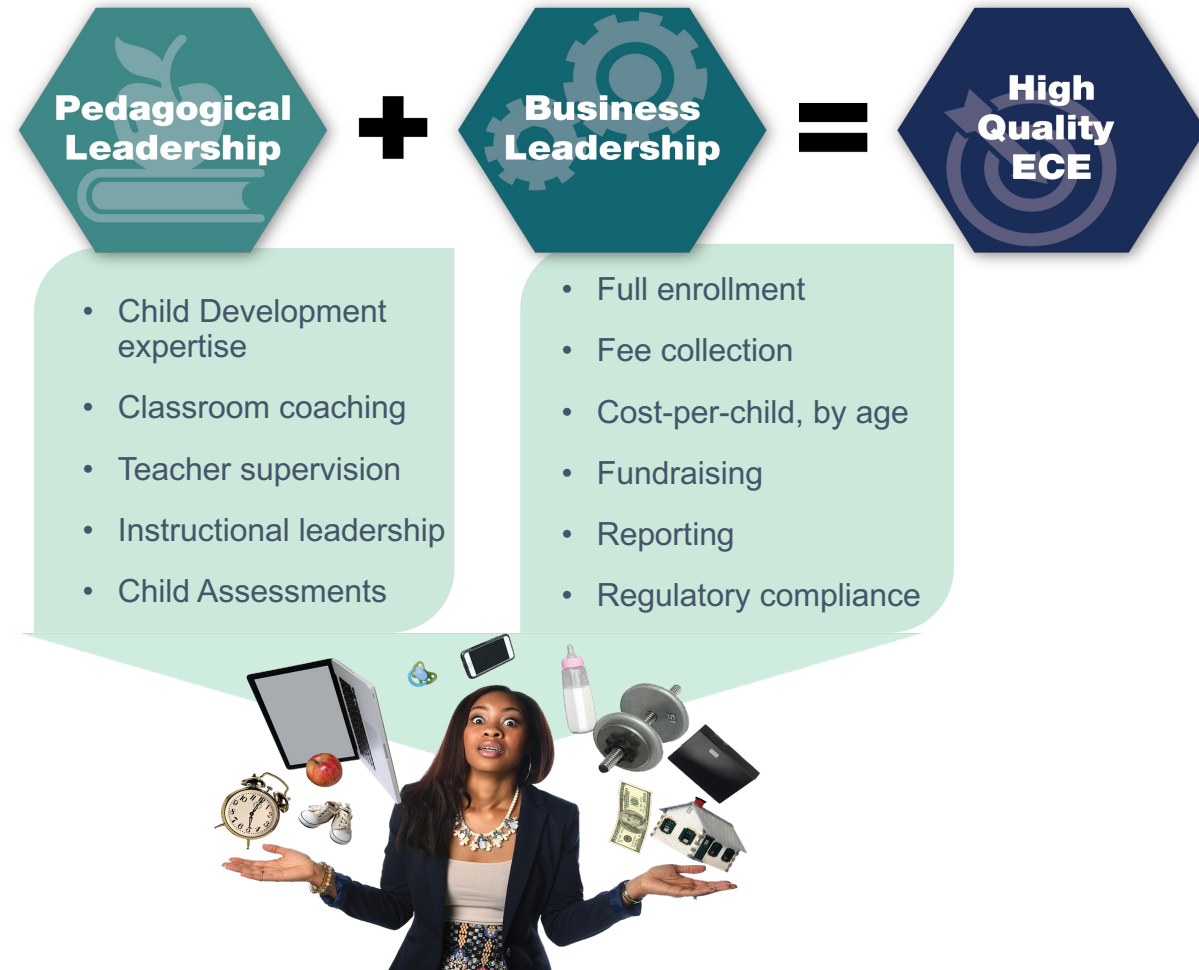
Care.com[®]

Sittercity

TOOTRIS

Providers need business software solutions to manage operations

- Spend too much **TIME** on administration over pedagogical leadership
- Spend too much **MONEY** on staff to manually collect/report data
- Struggle with
 - Full Enrollment
 - Full Collections

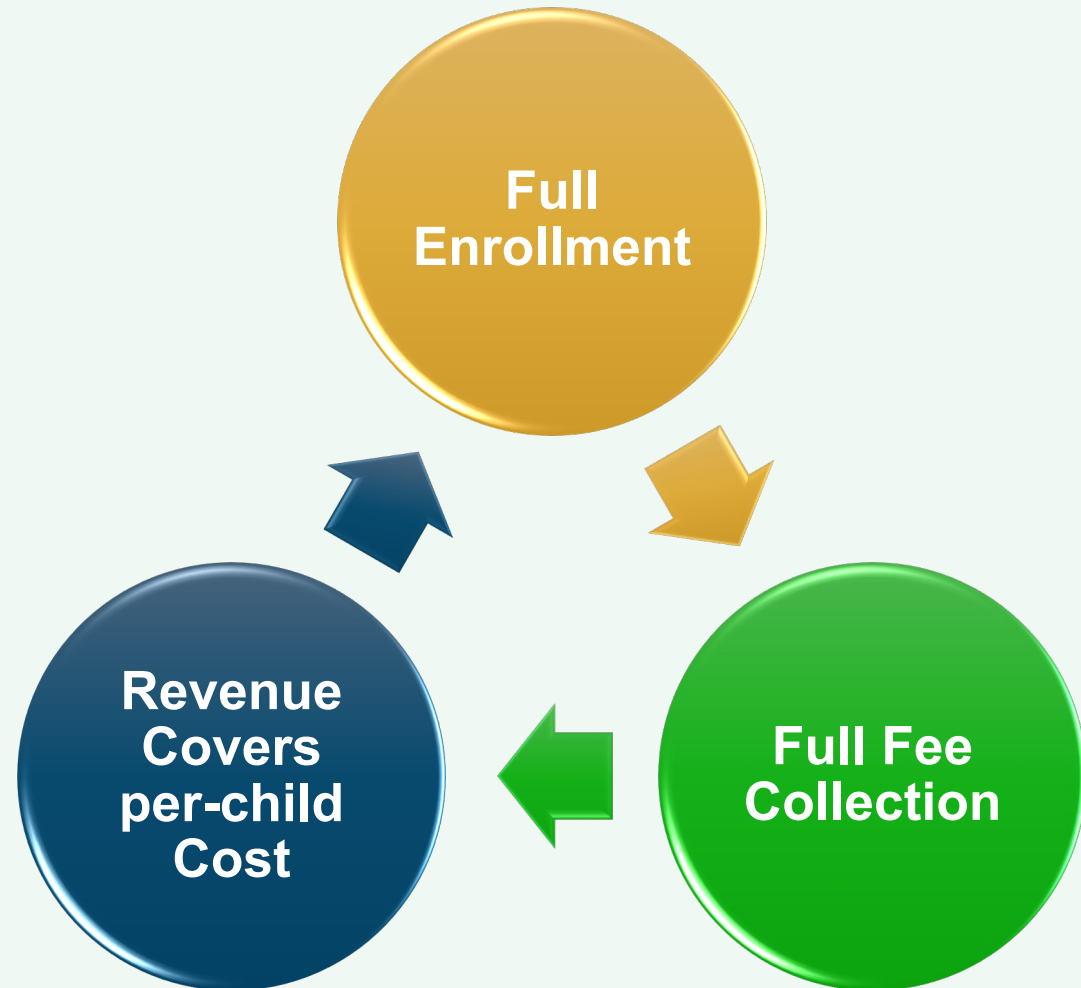




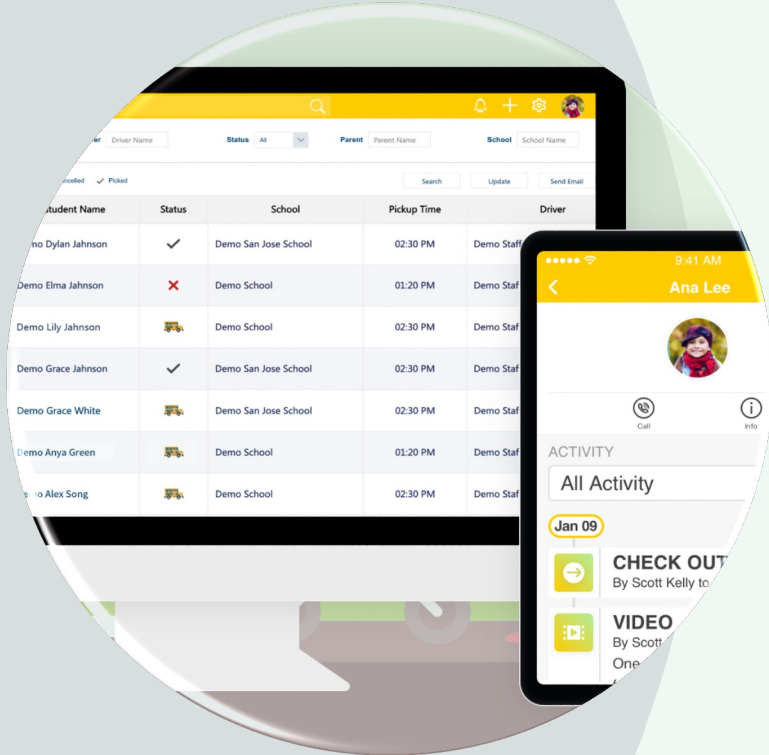
**Provider
sustainability
is more than
higher rates**

**Without
full enrollment +
full fee collection,
higher rates won't help.**

The Iron Triangle of ECE Finance



Childcare Management Systems (CCMS) Critical Business Tools



Full Enrollment

- Online presence
- Lead Management
- Online enrollment

Full Fee Collection

- Invoicing/reminders automated
- Electronic payments reduce bad debt
- Data informed decisions

Revenue Covers per child Cost

- Manage student-teacher ratios
- Generate financial reports

Less than one-third of providers use CCMS to manage their business (pre-pandemic)

Results: a CCMS business support project in Georgia

When the Project Began....

Average **bad debt** (among 24 providers in cohort) was \$52,532.

Many sites were not fully enrolled & most did not have procedures in place to track + boost enrollment

None of the sites were using automated systems to support best practice business management

Eleven months later....

Average **bad debt** was \$877 per program

Providers now have systems to flag problems and address them before debt accumulates.

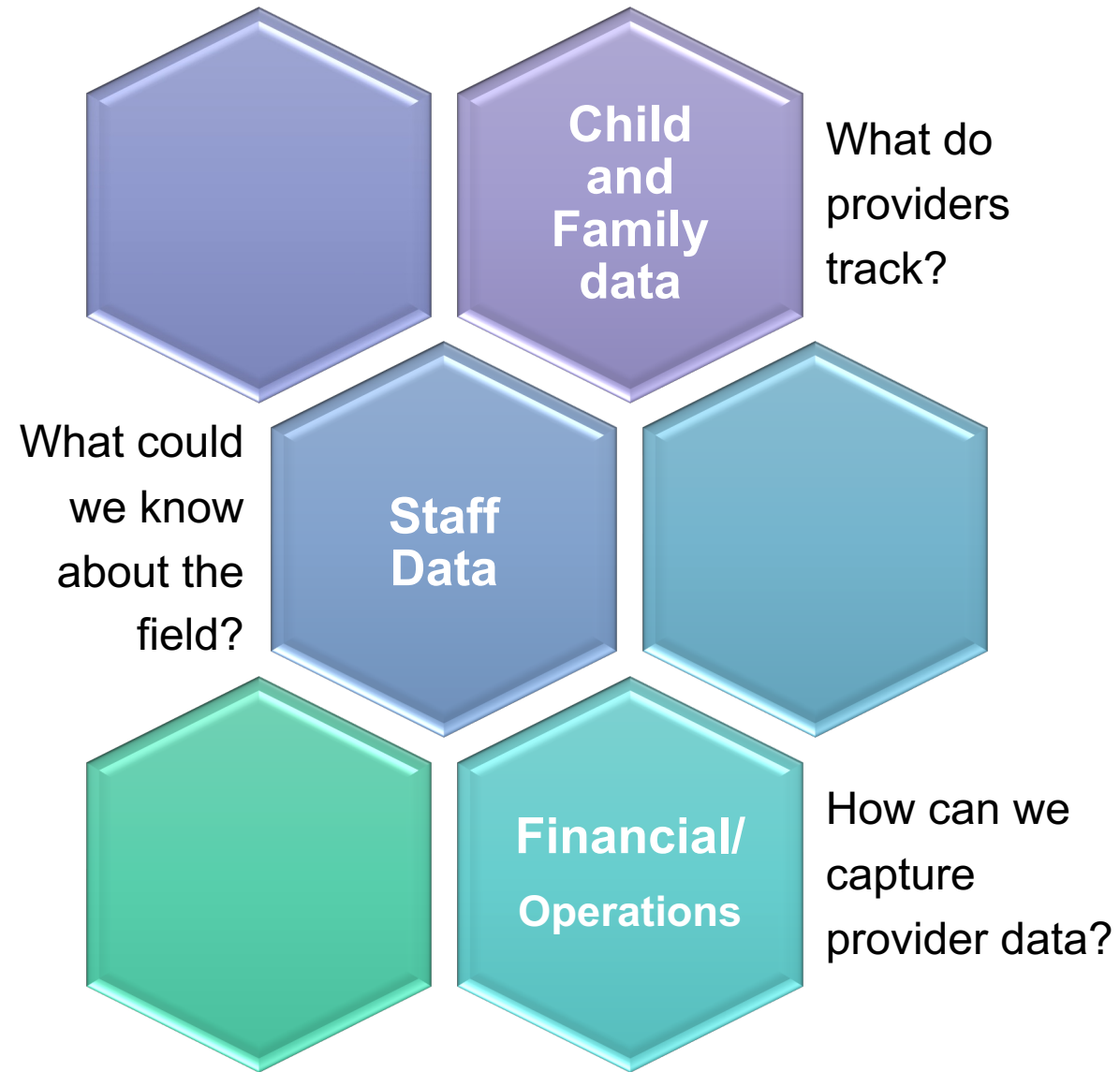
Enrollment (filling vacancies) grew by 34%

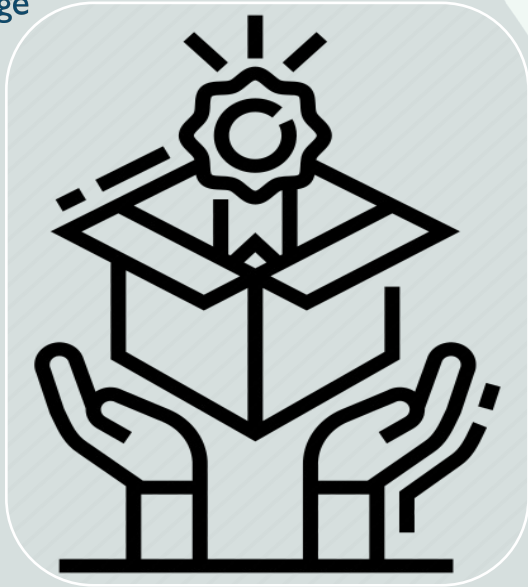
Overall program revenue increased by 24%

Two programs more than doubled revenue + one almost tripled revenue.

What do public administrators need to know?

- **Supply -- Available ECE spaces in all settings (public + private)**
Vacancies, by age of child
Staffed (vs licensed) capacity
- **Demand – Family needs**
Unduplicated # of children served with public \$
Unmet demand from families that pay privately
- **ECE Staffing**
Credentials + training, compensation, turnover
- **Financial Metrics**
Cost of care
Accountability for ARPA spending





The Value Proposition for State Administrators



More efficient use of staff time



Reduce waste, fraud, abuse of resources



**Shared accountability across the
broad system of providers/agencies
(i.e.- collective impact)**



**Ability to analyze and measure across
system boundaries (i.e.- early
intervention, child care, K-12)**



**Transparent data to ALL stakeholders
including ROI on public investments**

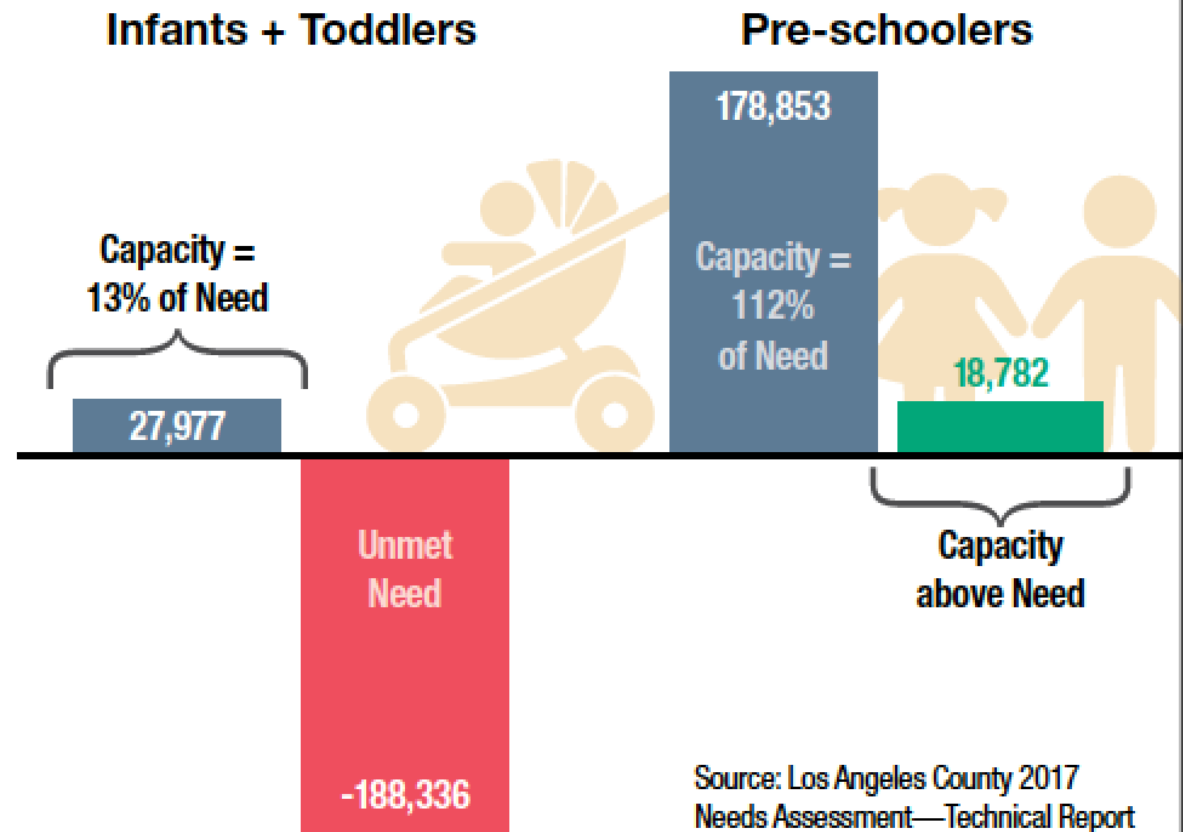
Measure the impact in outcomes and trajectories of young children



Data gaps lead to misguided policy and finance

- Few states have data on ECE capacity in all sites, including PreK in public schools
- Data on enrollment in all sites, by age of child, is rarely available

Supply + Demand of Licensed child centers + Family Child Care Homes in Los Angeles, CA





CCMS can collect real-time data

Aggregate enrollment among 300+ providers using Alliance CORE software

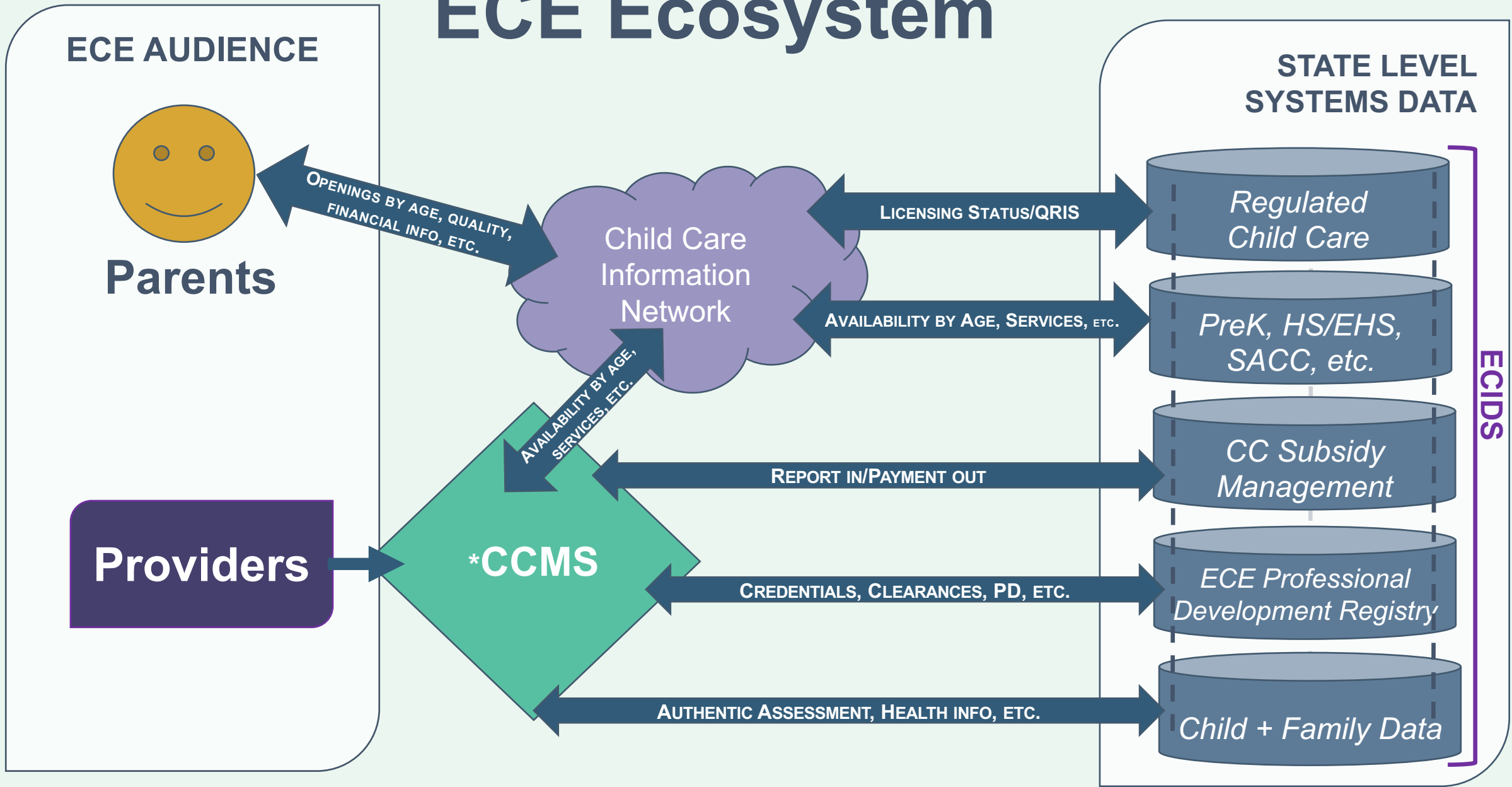
Pandemic Effects on CORE's Daily Child Attendance





What if...
The field used technology and...
Systems were connected?

ECE Ecosystem



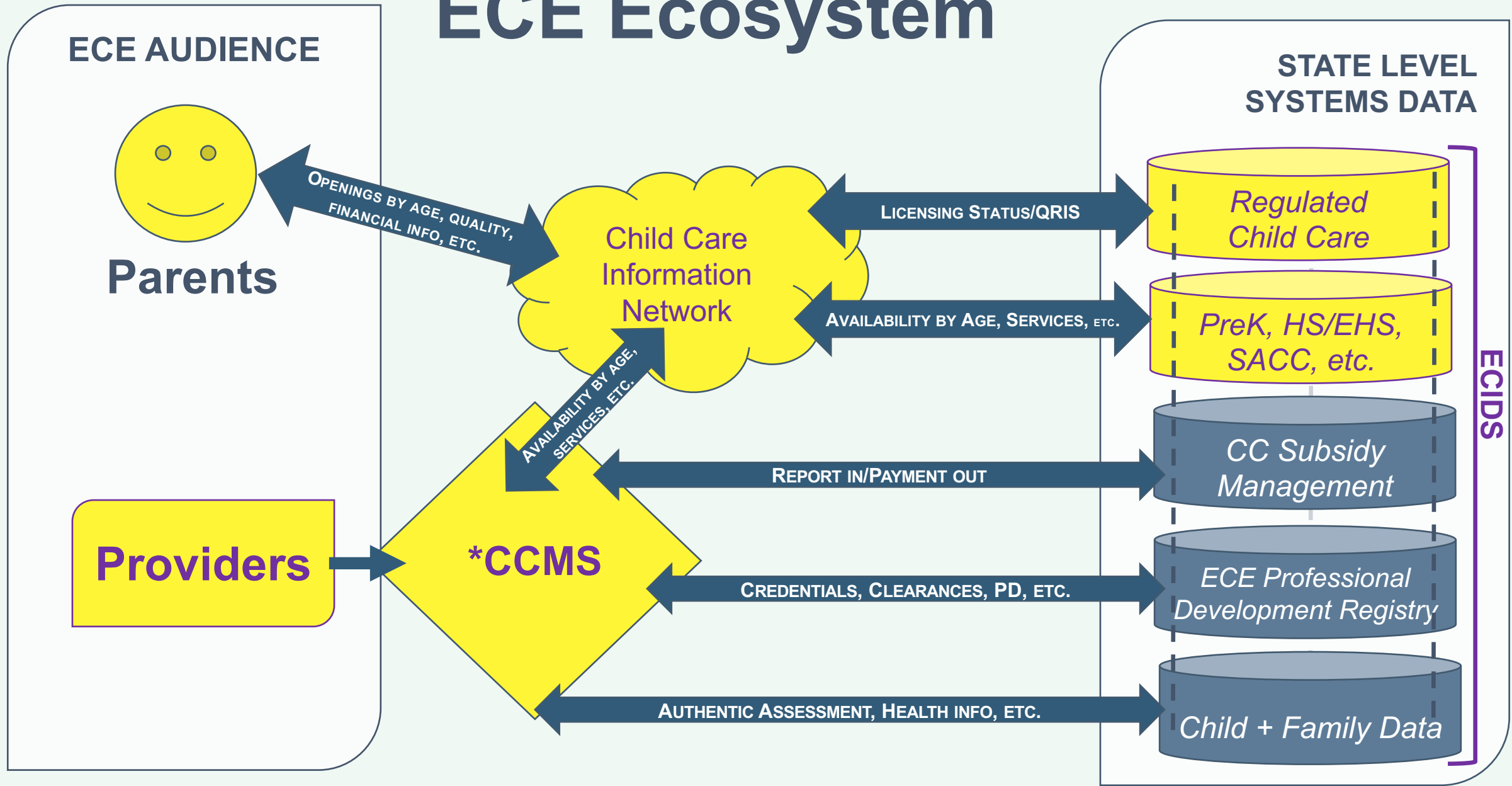
*Child Care Management System



21st Century Technology

What should we expect technology to do?

ECE Ecosystem



*Child Care Management System

Case Study:

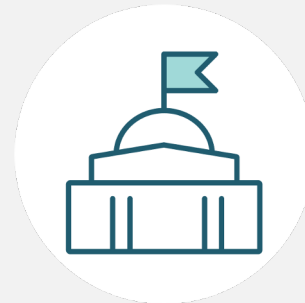
Integrating systems
to collect real-time
data including
supply and demand



Families: search, message, book a tour, apply for subsidy and other services



Providers: Update their profile, report openings, manage leads and communication

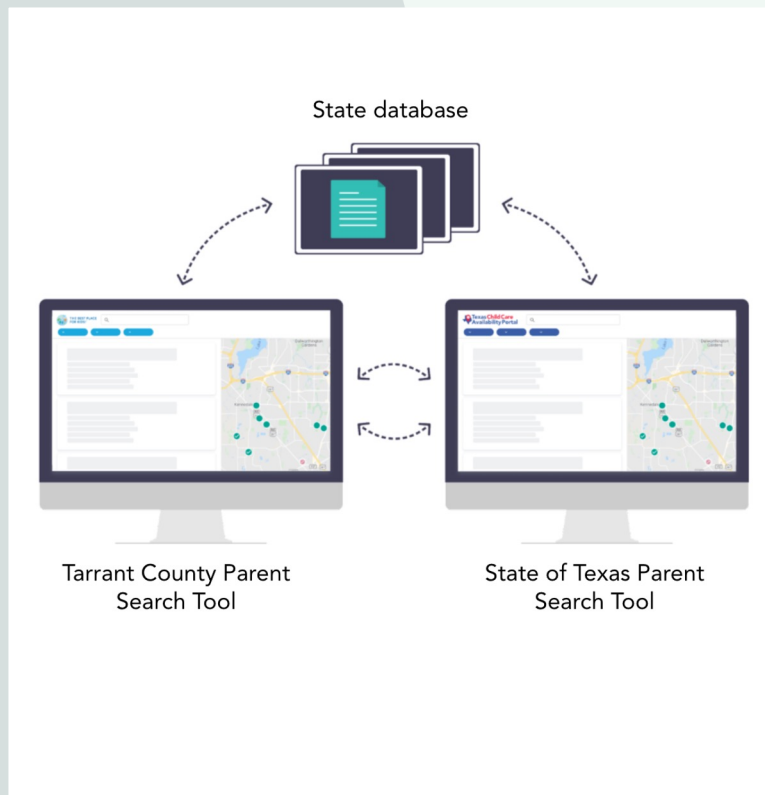


Government: Support providers & families through understanding gaps in supply and demand

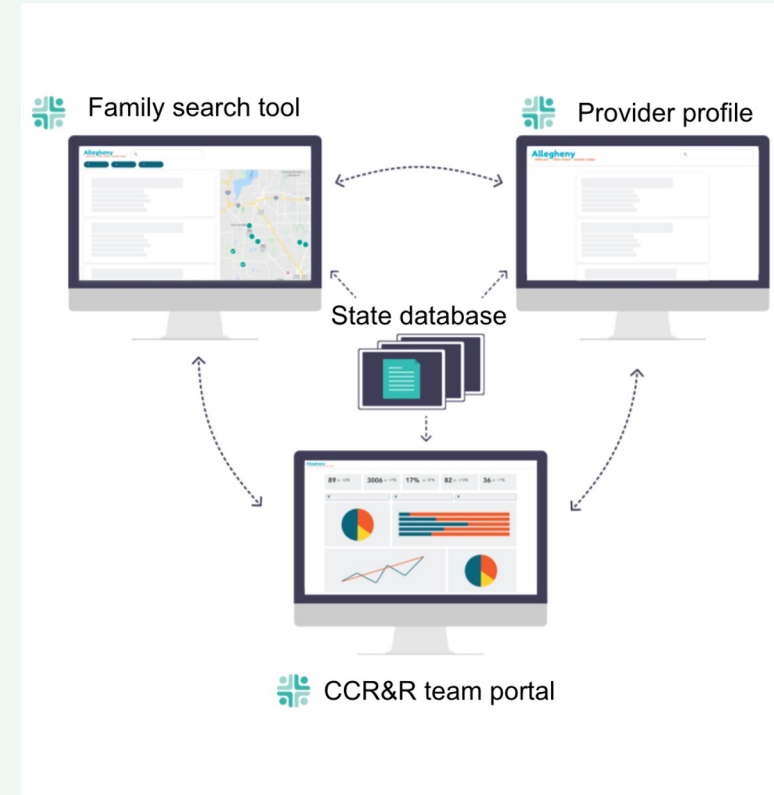
Integrating with existing state systems

Modular & configurable

Texas




Allegheny County, PA



Streamlined family experience

BridgeCare in Texas

Apply for financial aid ✕



📍 Dallas, TX, USA
🚗 Driving
👤 4 children

🌐 EN
☰

[Download favorites](#)

Availability ▾
Texas Rising Star ▾
Program options ▾
Hours ▾
More filters

If you are not finding the type of child care you need or have any other issues, email us at frontline.childcare@soc.texas.gov and we'll help!

Accepts Financial Aid

♥

For Keeps Sake

2520 Martin Luther King Jr Bl, Dallas, 75215

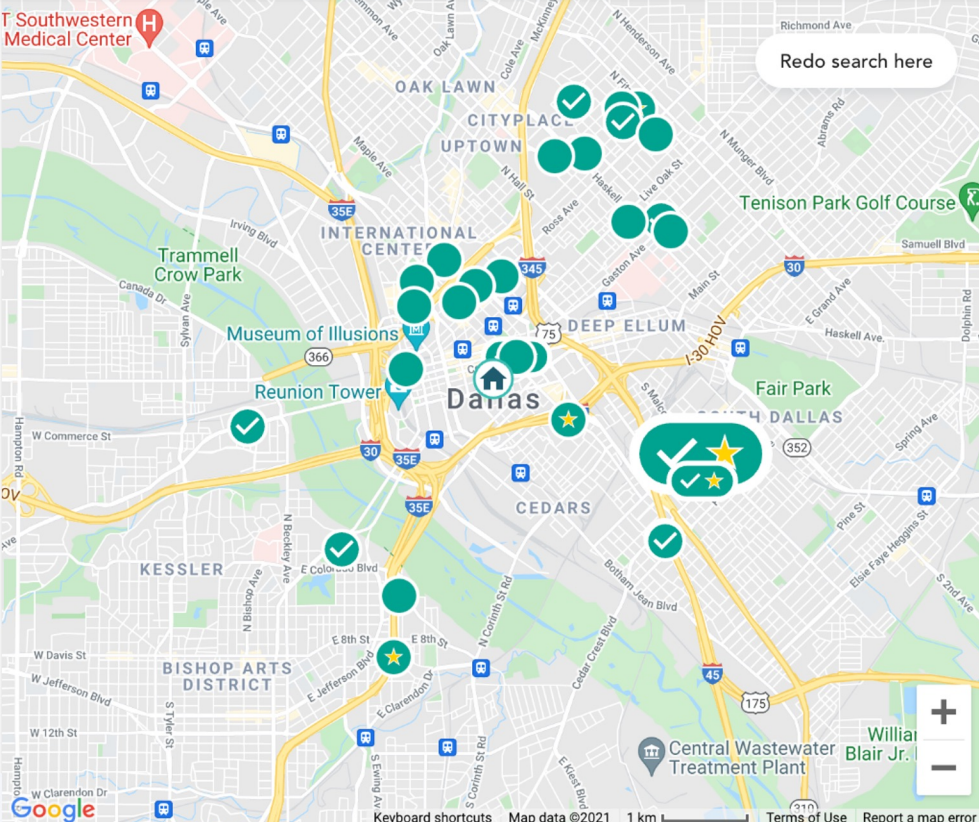
- ★ Texas Rising Star: 4 out of 4
- ✔ Openings available for Newborn - 17 months
- ✔ Openings available for 18 months - 2 years 11 months
- ✔ Openings available for 3 years - 4 years 11 months
- ✔ Openings available for 5 years - 12 years
- 🕒 Monday - Friday: 6:00 AM - 6:00 PM

Accepts Financial Aid

♥

Dallas First Presbyterian Church Developmental Day School

1835 Young St, Dallas, 75201

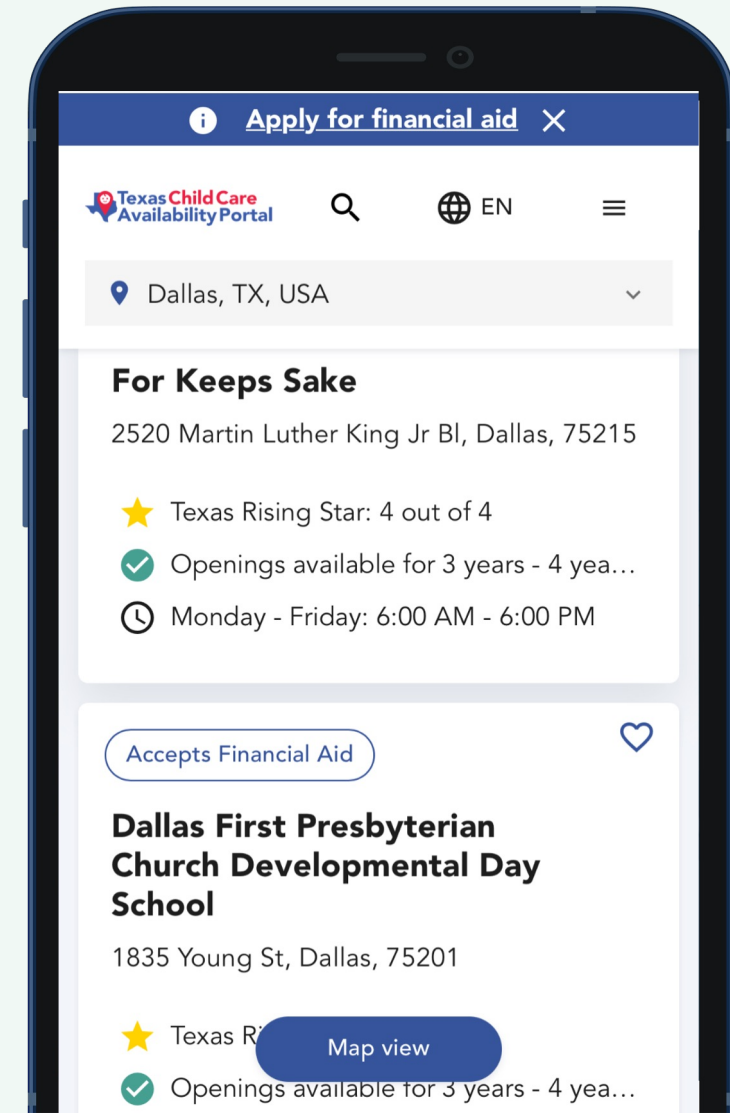
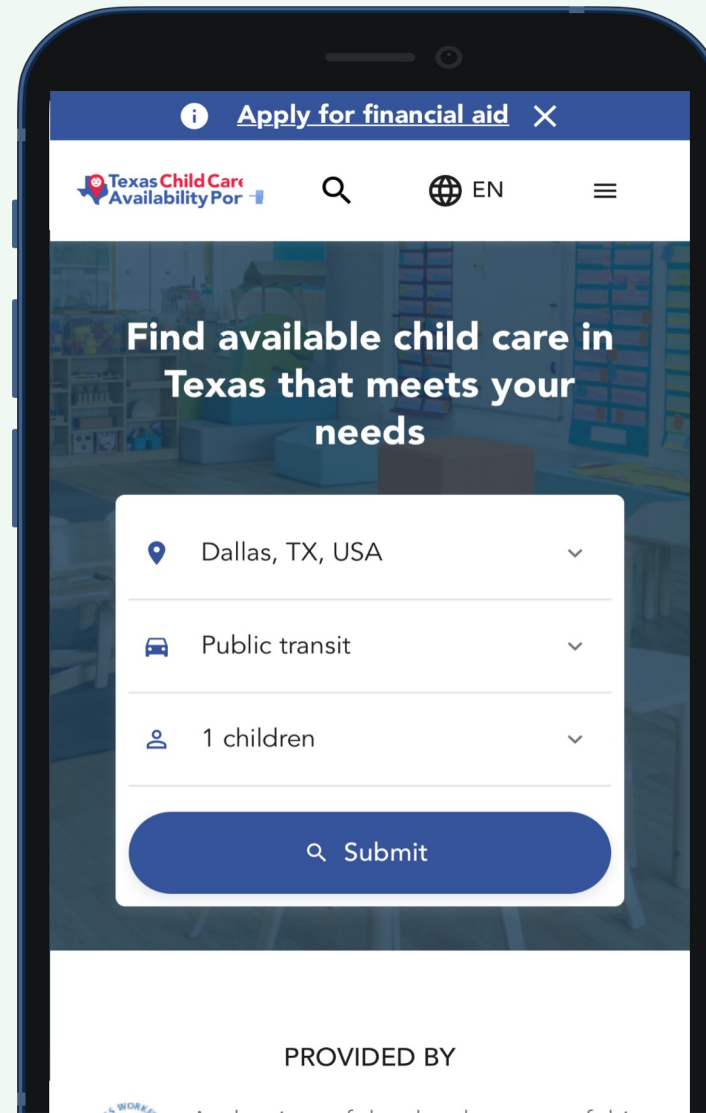


Family experience

BridgeCare in Texas: Benefits & Features

Search for care:

- Near location or along a route
- Based on method of transportation including **public transit**
- By age group
- By provider name
- In multiple **languages**
- **If accepts financial aid**
- With **openings!**
- Easily on any device

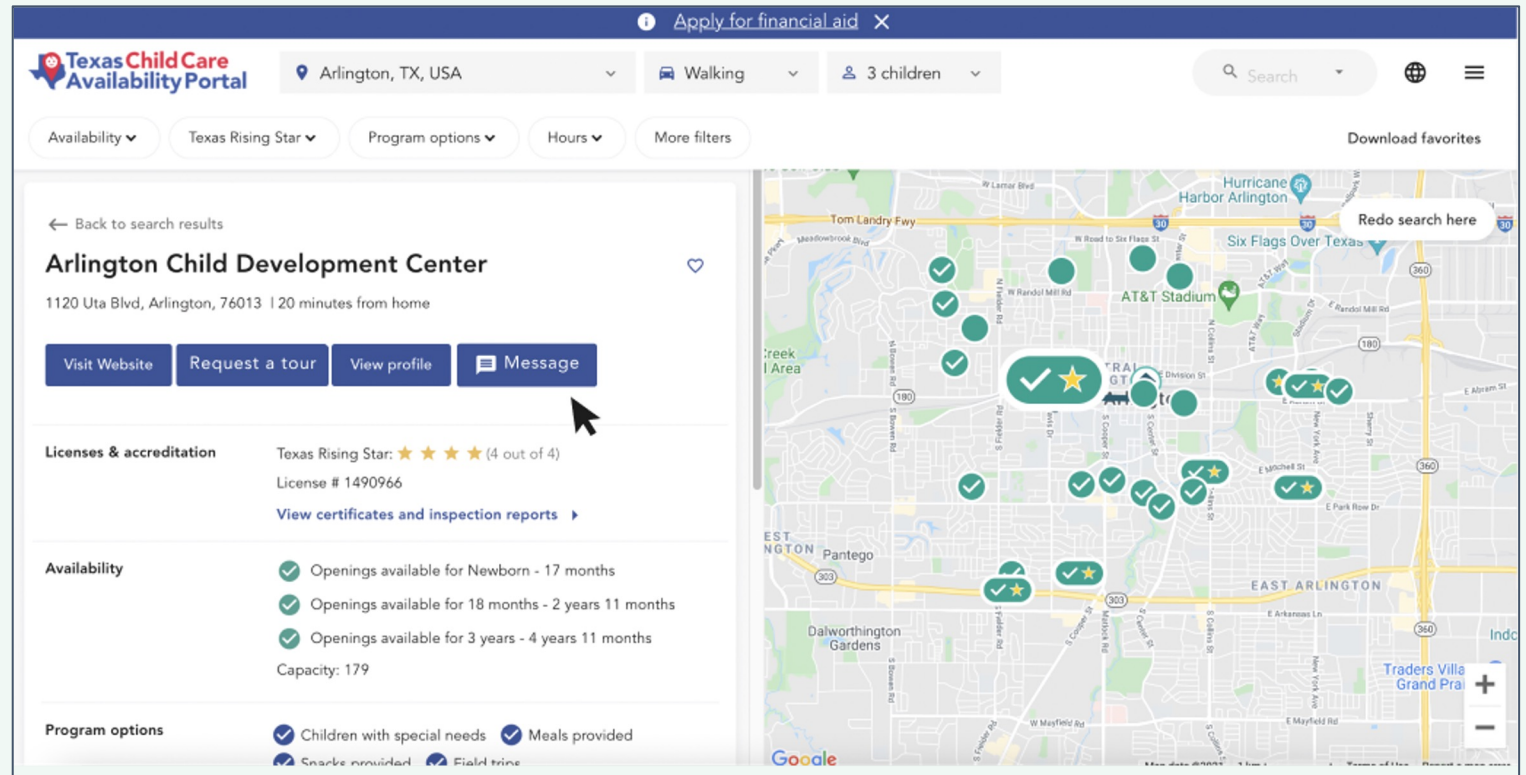


Family experience

BridgeCare in Texas: benefits & features


- Favorite providers
- Book a tour
- Message providers
- Apply for financial aid or subsidy from within the search experience

System captures all demand data insights




The screenshot displays the Texas Child Care Availability Portal interface. At the top, there's a navigation bar with the portal name, location (Arlington, TX, USA), mode (Walking), and number of children (3 children). Below this are filter buttons for Availability, Texas Rising Star, Program options, Hours, and More filters. The main content area shows search results for the "Arlington Child Development Center" at 1120 Uta Blvd, Arlington, 76013, which is 120 minutes from home. A "Message" button is highlighted with a mouse cursor. The center's details include a Texas Rising Star rating of 4 out of 4 stars, license # 1490966, and a link to view certificates and inspection reports. Under the "Availability" section, there are three checked items: "Openings available for Newborn - 17 months", "Openings available for 18 months - 2 years 11 months", and "Openings available for 3 years - 4 years 11 months", with a total capacity of 179. The "Program options" section shows checked boxes for "Children with special needs", "Meals provided", "Snacks provided", and "Field trips". To the right, a map shows the center's location and other nearby providers marked with green checkmarks and stars.

Streamlined provider experience

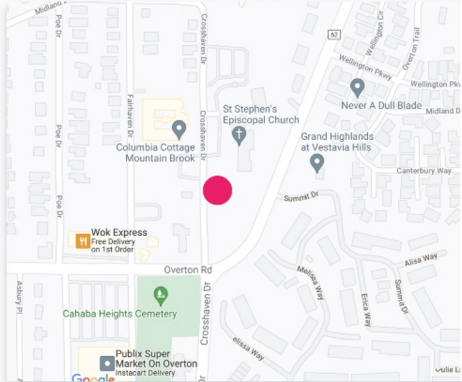


Locations
Learn
Grants
Quality
Interested
Students
Messages

 EN ▼
☰

Locations you manage

The information entered in this profile will be available to parents through the Search tool. To help parents find relevant information about your center, we encourage you keep your profile up to date.

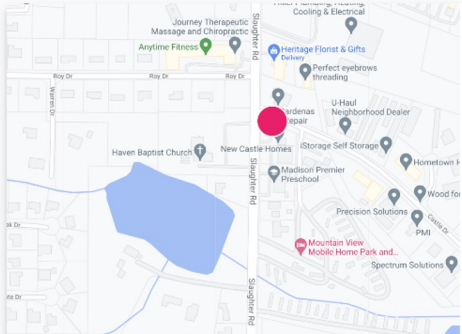


Steele School For Early Learning

- 📍 5030 Carr St, Arvada, CO
- ☎ (555) 967-6317
- ✉ No email
- 🌐 www.steeleschool.com

Edit profile

⦿ 82% Complete



Happy Valley Childrens Ranch Preschool

- 📍 7762 Quaker St, Arvada, CO
- ☎ (555) 864-8450
- ✉ No email
- 🌐 www.happyvalley.com

Edit profile

⦿ 75% Complete

www.oppex.org



Provider experience

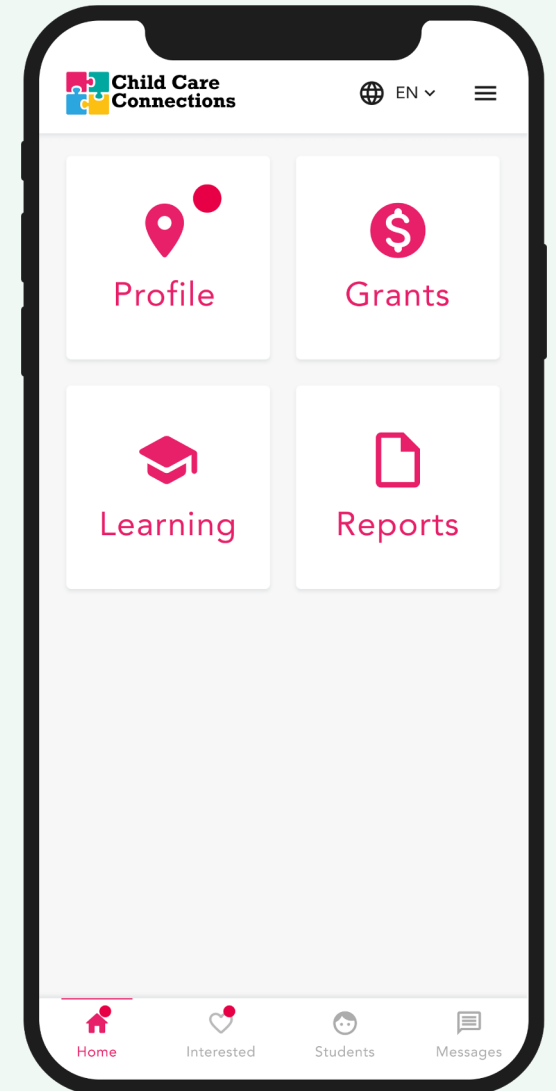
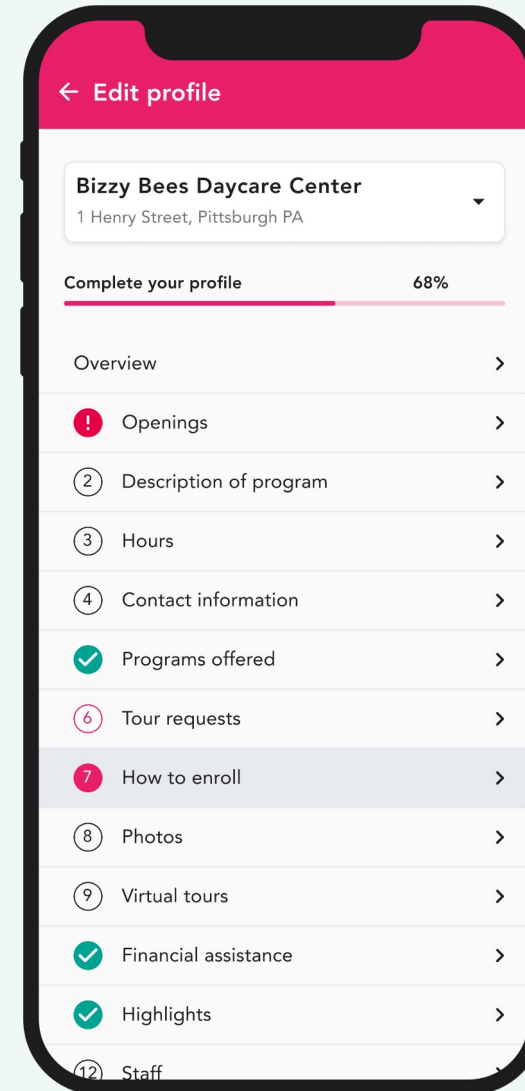
BridgeCare benefits & features

Add information to profile such as:

- Openings
- Hours and age groups accepted
- Tour times, tour videos, & images
- Staff experience

Manage licensing/quality requirements:

- Enrollment
- Professional development
- Grants
- Licensing/Quality documents
- Reporting



Real time data: Texas example

(reports available weekly)

Provider Status	#	%
Open, providing care	706	64%
Not operating	400	36%
Unknown	0	0%
Total	1,106	

Open providers	#	%
Center providers	334	47%
Family home providers	372	53%
Willing to extend hours	82	12%

Available Slots	sites	slots
Infant	289	1,382
Toddler	367	2,309
3-5 years old	373	3,112
School-aged	306	2,825
Total		9,628

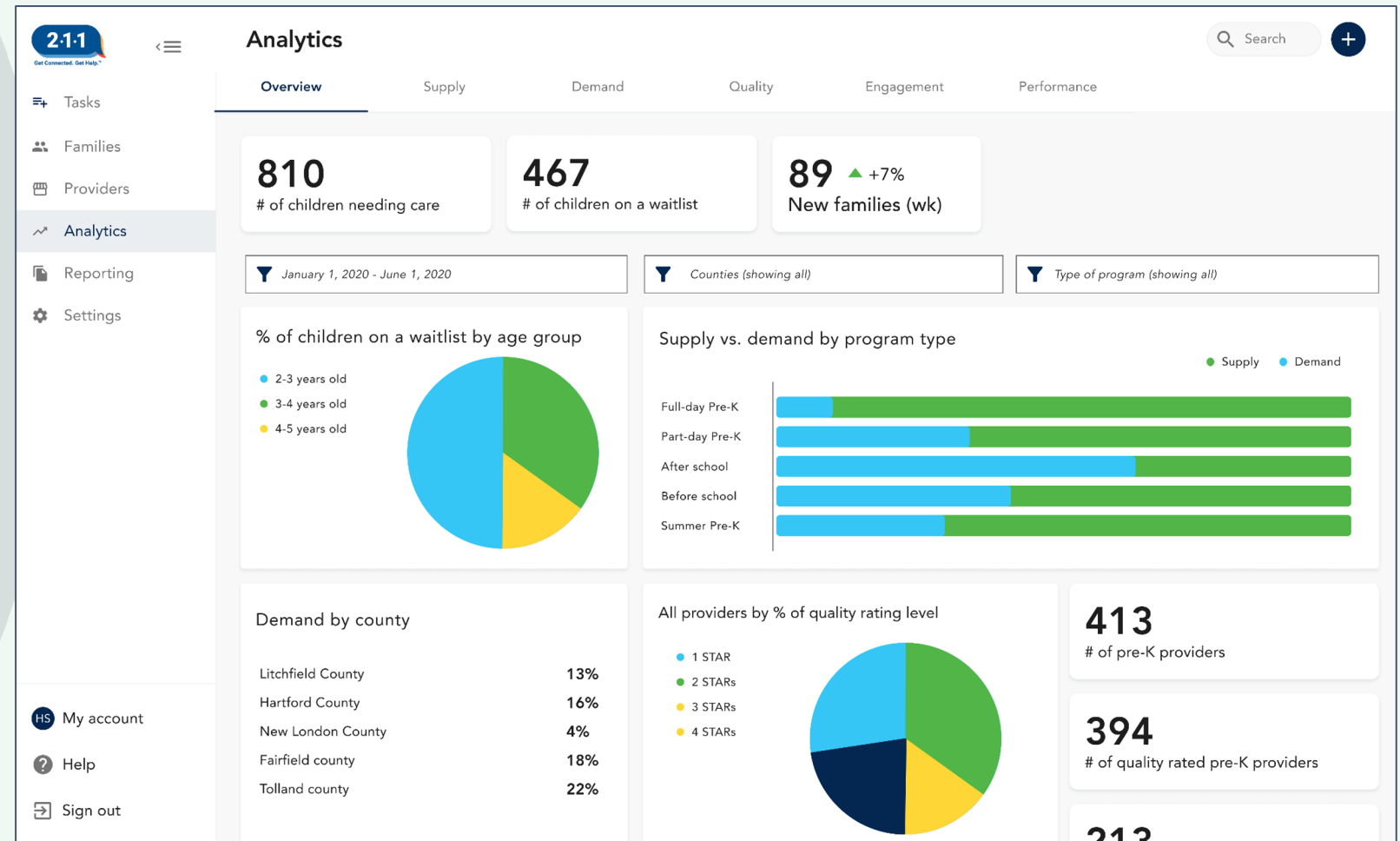
Application by Industry	#	%
Healthcare	587	34%
Local State Govt.	122	7%
Restaurant, Grocery, Food	198	11%
First Responder	75	4%
Gas Station	20	1%
Childcare worker	237	14%
Mail Delivery	65	4%
Military	17	1%
Maintenance	2	0%
Finance	79	5%
Construction	16	1%
Transportation	43	2%
Warehouse	68	4%
Leasing Agent	11	1%
Other	202	12%

Data by City	Sites	Infant	Toddler	3-5 Yrs	School-aged	All slots
ALEDO	1	8	2	10	25	45
ARLINGTON	101	327	536	744	586	2,193
AZLE	4	8	41	46	80	175
BEDFORD	15	55	82	123	113	373
BENBROOK	3	4	7	9	10	30

Eligible applications	
% pending placement	2%
% enrolled	86%
Total	87%

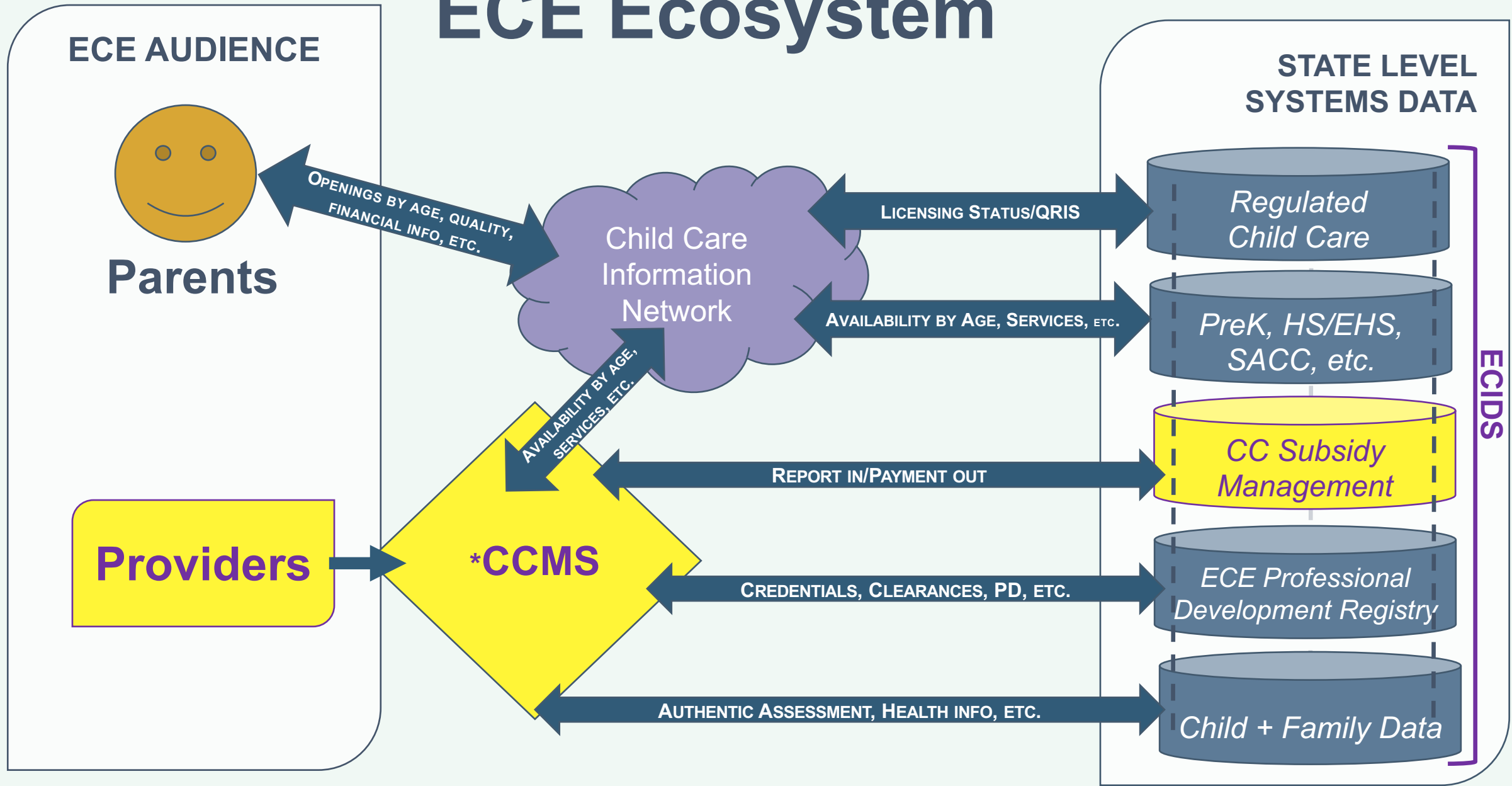
Data-driven decision making for administrators

- Real-time supply and demand data
- Data visualizations
- Ad-hoc reporting
- Data extracts
- Automated delivery of reports via email



**Data shown is fictitious for the purpose of this presentation.*

ECE Ecosystem



*Child Care Management System

Case Study:

Subsidy management and electronic attendance tracking



Fast, secure time and
attendance tracking
Checking children into care via
Smartphone



Reduce Provider Error
Use an interface to collect
attendance data – no
duplicate entry



Faster Reimbursement
Automated, quicker data review
& payment
www.oppex.org

Checking In with a Smartphone

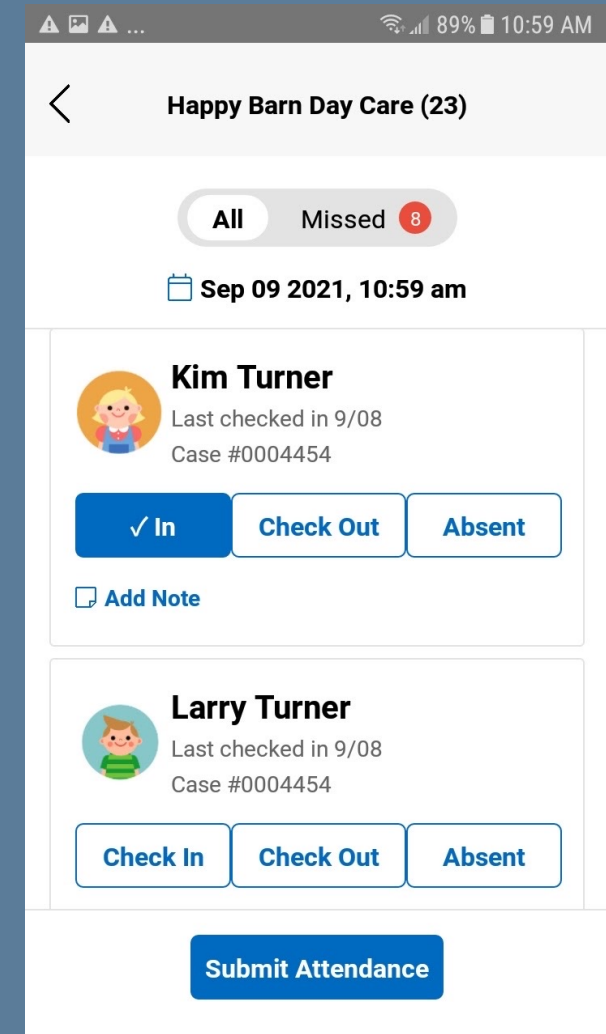
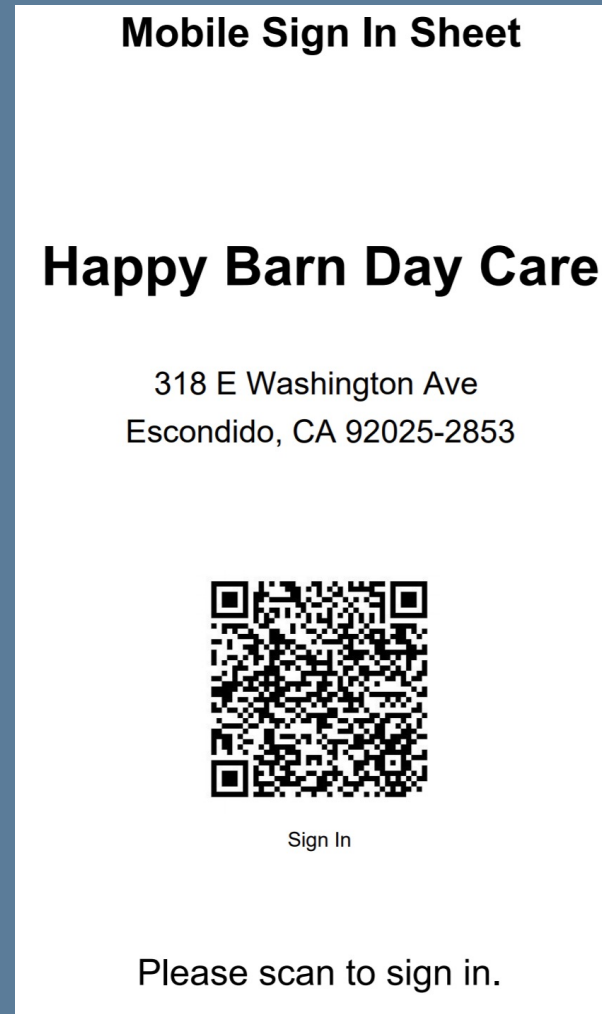
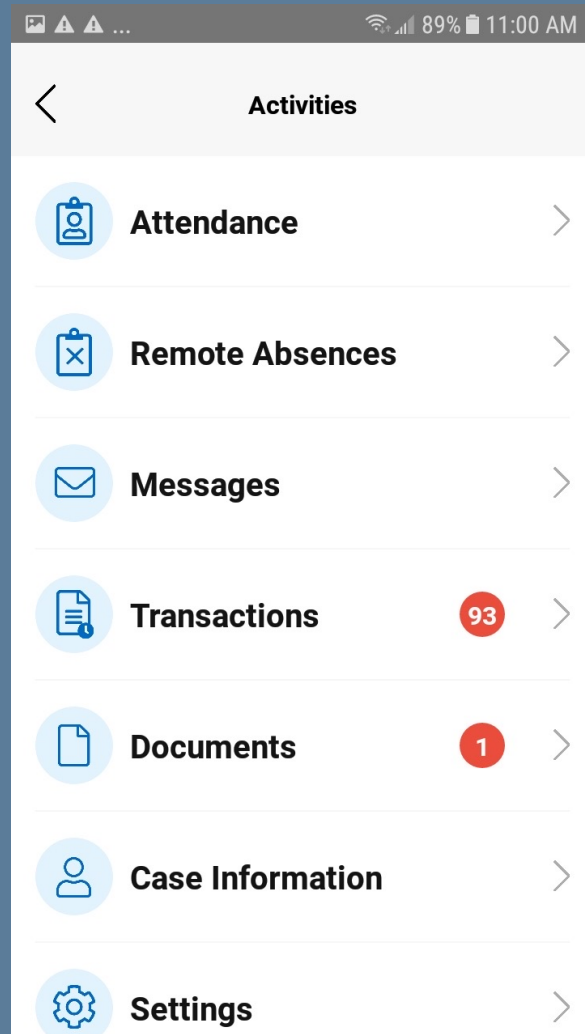


Providers maintain list of individuals authorized to drop off and pick up children.

Families use their Smartphone to check children in and out of care. The location of each attendance transaction is captured.

Providers display a QR Code, on-site, for families to scan to record attendance.

Mobile Apps make transactions easy



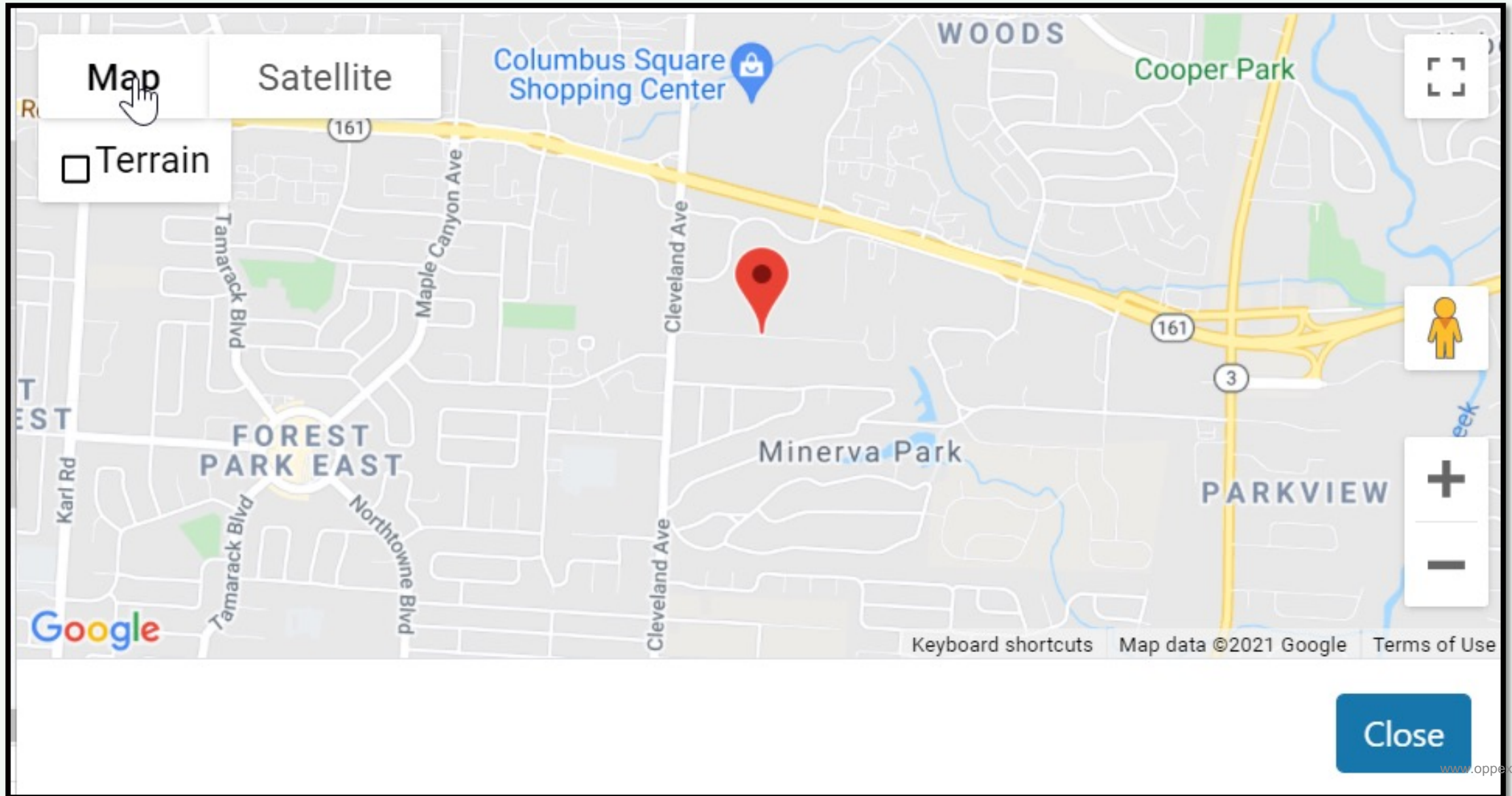
Real-time updates in Provider Portal

Child Name	Monday 9/6	Tuesday 9/7	Wednesday 9/8	Thursday 9/9
Turner, Kim Date of Birth: 1/2/2018 Case Number: 0004454 Child: Hours Attended: 19:13	In: <input type="text" value="09:00 am"/> ✓ Out: <input type="text" value="06:00 pm"/> ✓ + Time Cells Daily Hours: 9:00 Absent: <input type="text" value="-Select-"/> ▾ Sched: 8:00AM-6:00PM + Note History	In: <input type="text"/> Out: <input type="text"/> + Time Cells Daily Hours: 0:00 Absent: <input type="text" value="-Select-"/> ▾ Sched: 8:00AM-6:00PM + Note	In: <input type="text" value="06:47 am"/> ✓ Out: <input type="text" value="05:00 pm"/> ✓ + Time Cells Daily Hours: 10:13 Absent: <input type="text" value="-Select-"/> ▾ Sched: 8:00AM-6:00PM + Note History	Missing Time In: <input type="text" value="10:59 am"/> ⚠ Out: <input type="text"/> + Time Cells Daily Hours: 0:00 Absent: <input type="text" value="-Select-"/> ▾ Sched: 8:00AM-6:00PM + Note History

Transaction History on 9/9/2021 for Turner, Kim

ID	Event	Event Time	Update Time	Creation Time	Status	User	Source	Device ID	Device Type	Geocode	Signature	Version Operator	Version Reason
→ 1338	Time In	9/9/2021 10:59 AM	9/9/2021 10:59 AM	9/9/2021 10:59 AM	Approved	Turner, Rita Sponsor	Mobile	23	Android Phone	40.08008, -82.94773		Turner, Rita	Add

Geo-codes: Where did the sign-in occur?



For providers using a CCMS to capture attendance data, the information is sent automatically, (via API) to the subsidy management system

Transaction History on 9/9/2021 for Turner, Kim

ID	Event	Event Time	Update Time	Creation Time	Status	User	Source	Device ID	De
→ 1338	Time In	9/9/2021 10:59 AM	9/9/2021 10:59 AM	9/9/2021 10:59 AM	Approved	Turner, Rita Sponsor	Mobile	23	Ar
→ 1339	Time Out	9/9/2021 11:02 AM	9/9/2021 11:03 AM	9/9/2021 2:02 PM	Approved	Sponsor	ProCare		

User	Source	Device ID
Turner, Rita Sponsor	Mobile	23
Sponsor	ProCare	

- Families check into ONE system
- Provider captures the data for their own accounting
- The state can elect to receive data on ALL children (public and private pay) for a full understanding of supply/demand

Providers can check payment reports to catch and correct any errors

Provider Payments

Provider:* Happy Barn Day Care (San Diego) ▾

Start Date:* 7/1/21 

End Date:* 9/9/21 

Date Filter: Service Period ▾

Status: All Payments ▾

[Search](#) [Clear](#) [Export](#)

Search Results 2 Results Found

<input type="checkbox"/>	Payment ID	Status	Status Date	Period Start Date	Period End Date	Family Name	Child Name	Amount	Fees	Details	Note	Send Alert
<input type="checkbox"/>	34	Paid	08/13/2021	07/01/2021	07/31/2021	Lambert	Lambert, James	\$129.25	\$0.00			Send Alert
<input type="checkbox"/>	37	Processing	09/02/2021	08/01/2021	08/31/2021	Hudson	Hudson, Kelly	\$0.00	\$0.00			Send Alert

Total Amount: \$129.25

Simple, easy to use system to flag + fix problems

Payment Report:

	A	B	C	D	E	F	G	H	I
1	Payment ID	Status	Status Date	Period Start Date	Period End Date	Family Name	Child Name	Amount	Fees
2	34	Paid	8/13/2021	7/1/2021	7/31/2021	Lambert	Lambert, James	\$129.25	\$0.00
3	37	Processing	9/2/2021	8/1/2021	8/31/2021	Hudson	Hudson, Kelly	\$0.00	\$0.00
4									

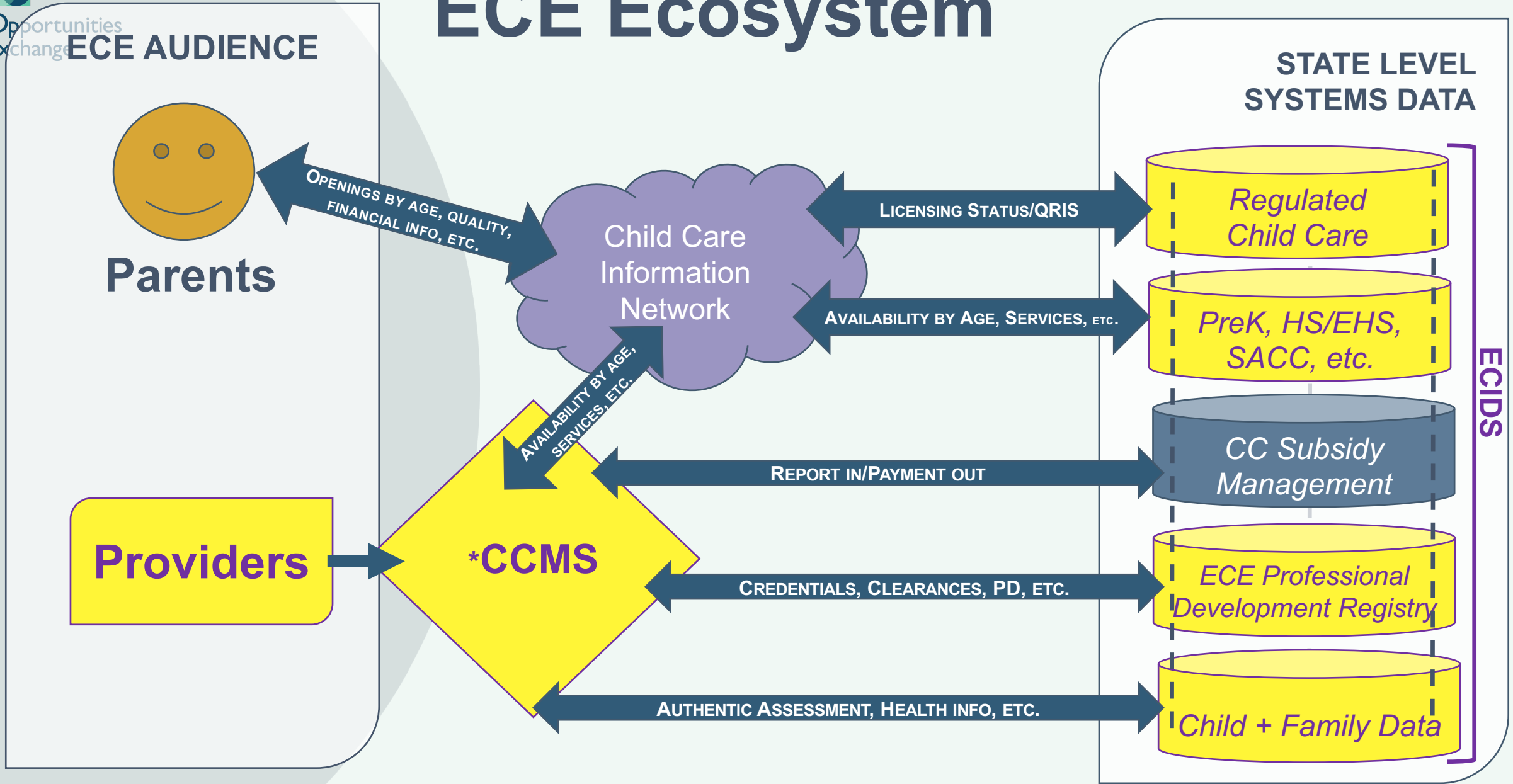
Alert Form:

Send Payment Alert

Message:

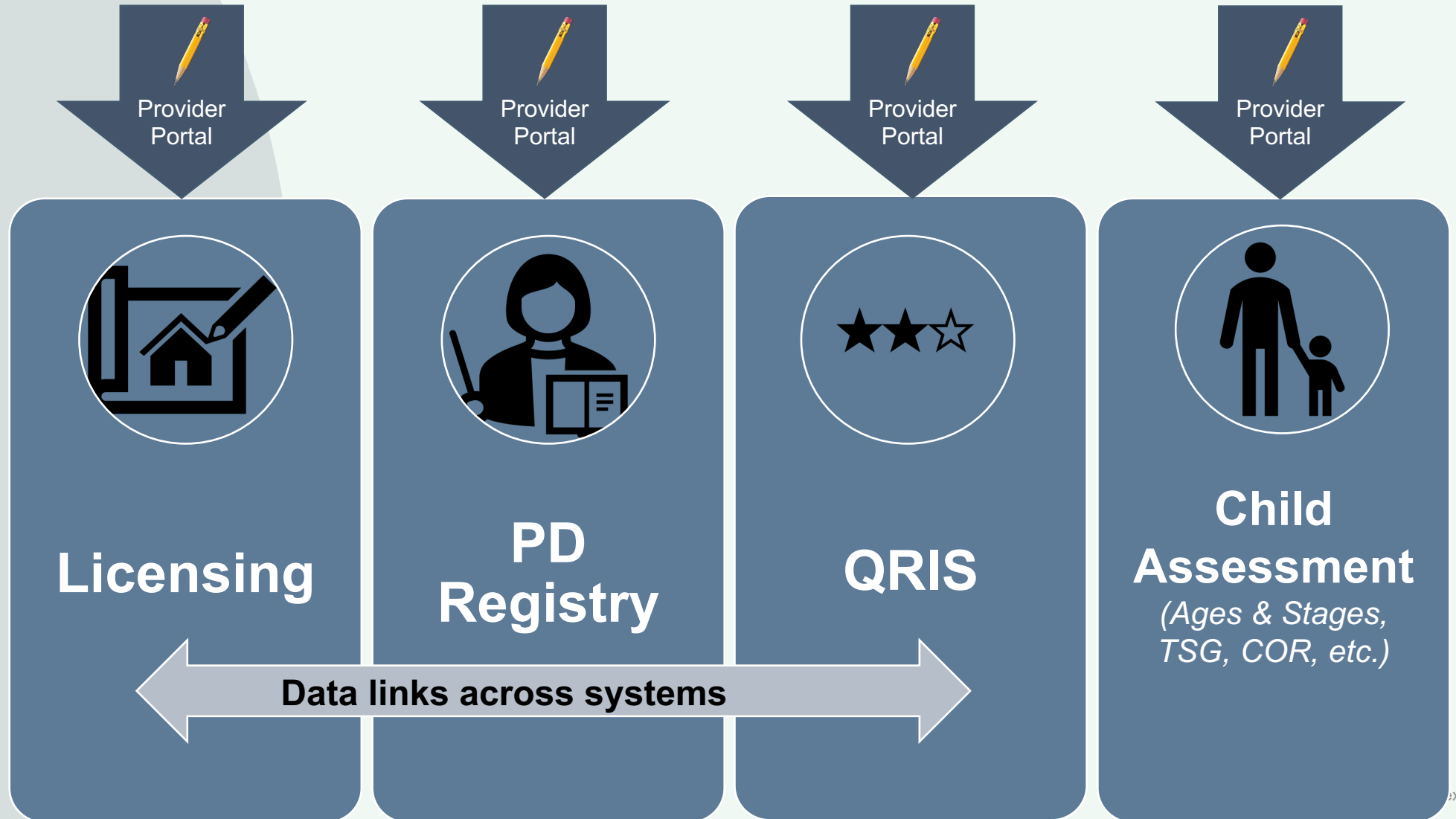


ECE Ecosystem

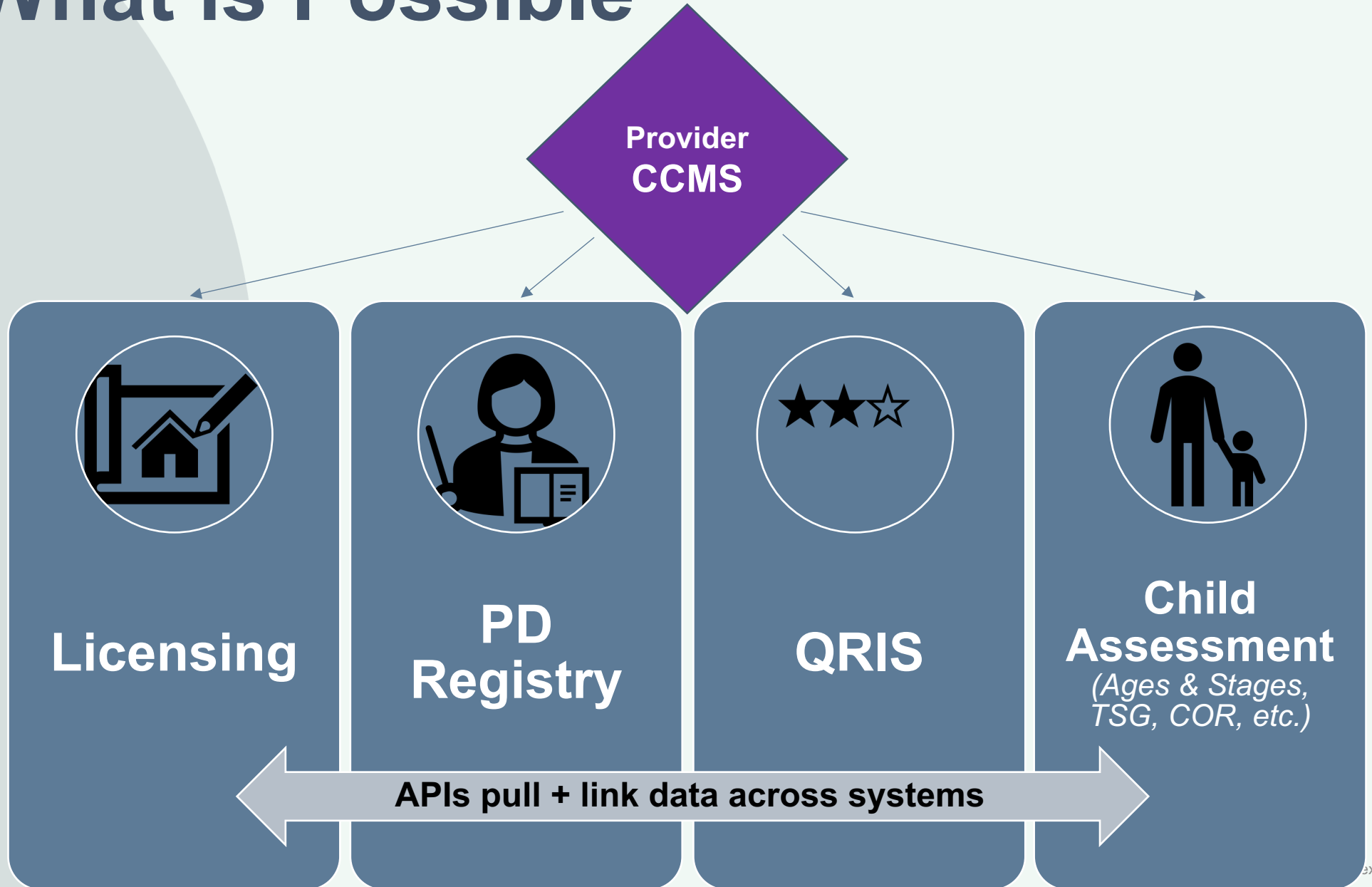


*Child Care Management System

Current reality in many states

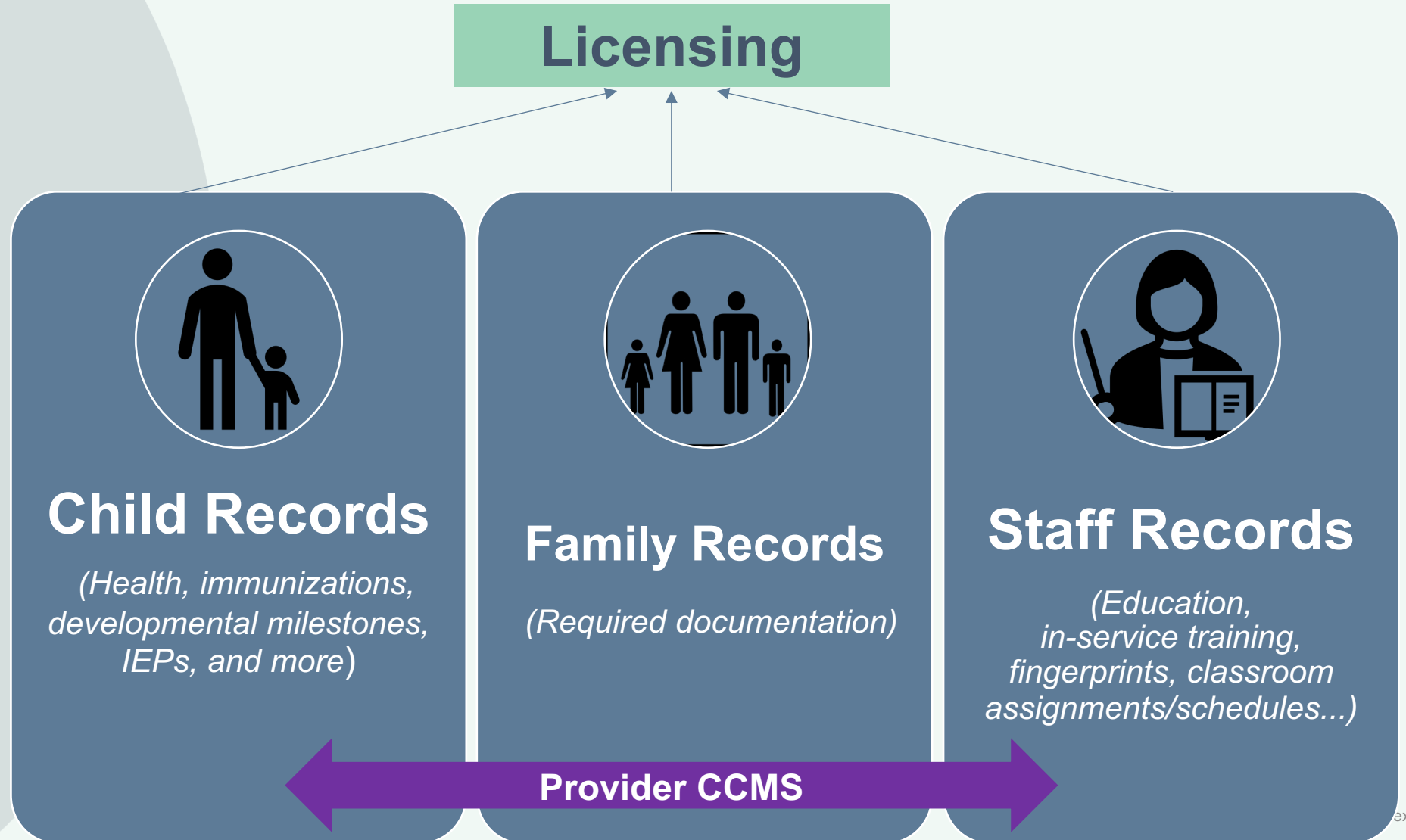


What is Possible

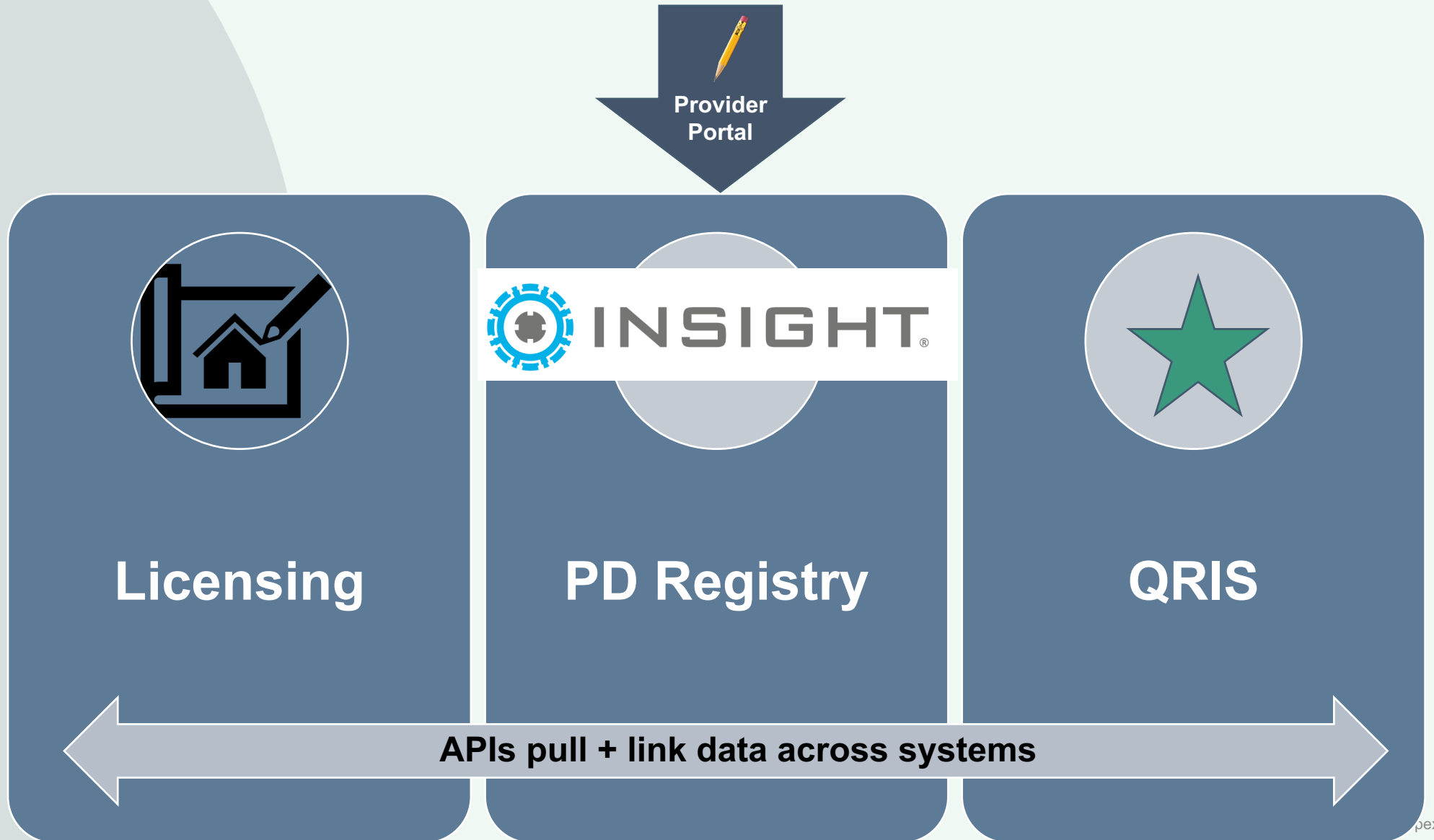


Licensing links: Alliance CORE (ELV)

- Licensing staff review all paperwork in advance of the visit
- When on-site, reviewers focus on elements that need visual inspection
- Reduces overall time for site visits



PD Registry links: INSIGHT (New World)

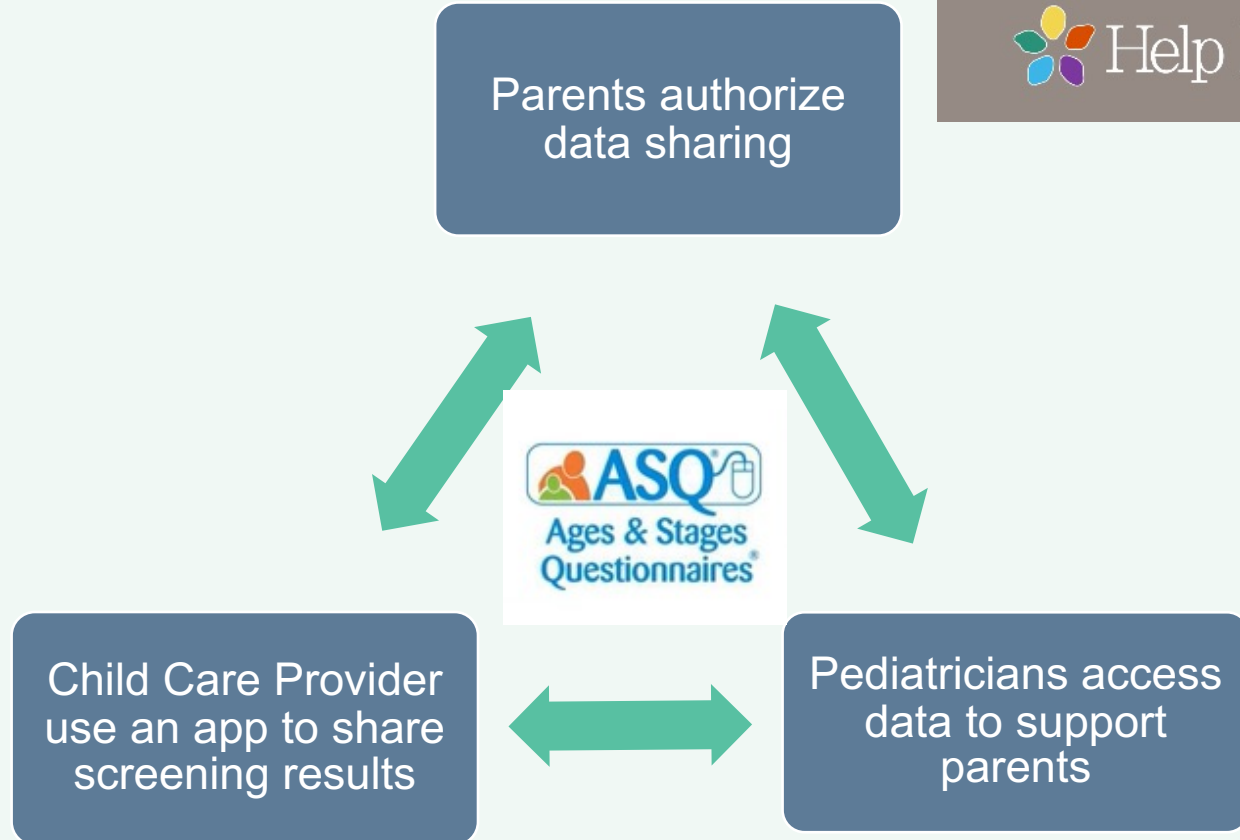




Child assessment links: Ages + Stages Questionnaire

Vermont has launched a Universal Developmental Screening (UDS) Registry, which is a comprehensive screening, data collection and communication system.

The UDS Registry was created to share screening results across community settings.



Child assessment data: Cognitive Toybox



Assess

General Overview: **26/37**

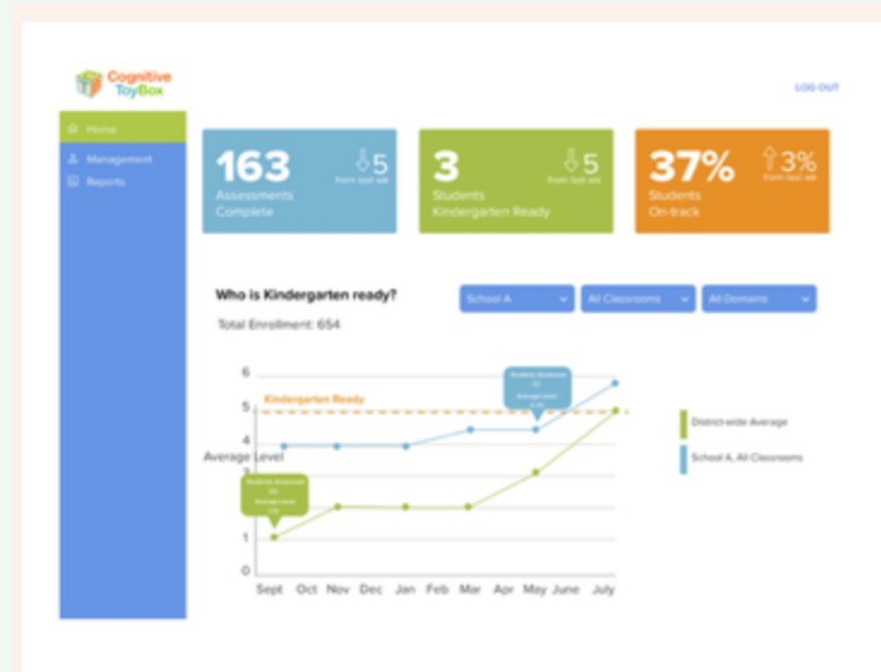
Math:	10/11
Fine and Gross Motor:	7/12
Speech and Language:	3/6
ELA:	6/8

ELL: **3/4**

Hearing and Vision: **1/2**

Other Notes:

Improve



Hybrid observation and game-based approach provides data to teachers in real-time, to improve each child's instruction.

Child assessment data links

Data from Cognitive ToyBox

Network Data
Dashboard



FCC Network
Hub
(Avance)



ChildPlus
CCMS

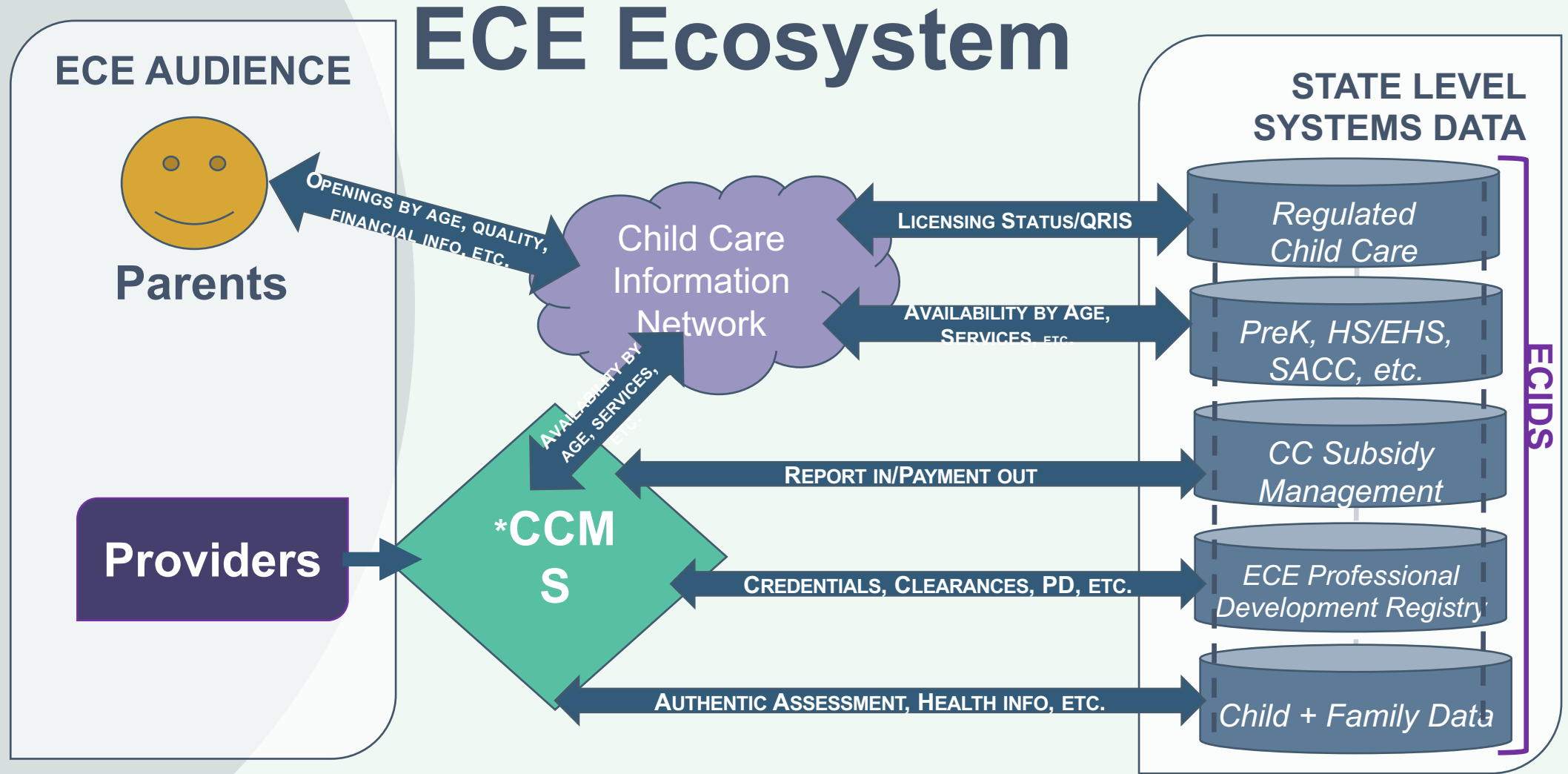


QRIS

A first step: enable electronic documentation for licensing/QRIS

- **North Carolina** – State child care licensing agreement with Wonderschool to accept electronic enrollment documents and child records.
- **Wisconsin** – New regulation enables electronic submission of licensing paperwork using ELV's Alliance CORE.
- **Pennsylvania** – Accepts electronic documentation which providers upload into a provider portal.

Questions and Discussion





Opportunities
Exchange

From Vision To Implementation



Opportunities
Exchange

Technology Vendor Landscape

How to successfully engage vendors

Typical Technology Vendor Challenges

- **Costs**
Bait and switching
- **Flexibility/Customization**
Willingness to meet the buyer (you) where you are
- **Over-promising or Under-delivering (Trust)**
Tech companies have built a reputation of saying "yes" just to win RFPs
- **Long term accountability**
Managing vendor relationships can be challenging
- **Motivation misalignment**
*Vendors motivated by \$ (especially backed by Venture Capital)**

Some Misconceptions

- Physically owning the software is safer
- Custom builds are cheaper, easier to manage, and more reliable
- Customization is impossible with off-the-shelf solutions
- Vendors motivated by \$, especially if backed by Venture Capital
- You only need to engage with tech companies at the point of purchase

What is Software as a Service (SaaS)?

Business: An alternative method of charging for technology that guarantees the very latest version. Typically charged annually. Typically requires no set-up or maintenance costs.

Technology: Delivered over the internet (cloud), typically via very secure globally distributed servers that optimize for speed and security.

Product: Same underlying infrastructure and product is made available to all customers, although features and modules may differ. At scale, this almost guarantees fidelity. Safety in numbers.

What does all of this mean for you?



- Your vendor **choice** is exploding
- You may need to get comfortable with **change**
- Data **security** more robust
- **Custom** data requests will be taken more seriously.. ..under certain conditions
- You'll need to be clear about what data is **required** versus nice-to-have
- There will be a **delta** between what you want and what vendors can deliver.
- Vendors will need to be **engaged** more frequently

Vendor Acquisition Tips

- Be sure that what you are asking for is truly required (be open to workarounds)
- Produce RFPs where you know at least 3 vendors can meet a minimum of 80% of the requirements
- Hire an expert to support you vetting their current product offering
- Use same expert to challenge their ability to innovate (roadmap)
- Use an expert to develop contractual terms that guarantee vendor accountability
- Consider running bake-offs in commoditized areas.



How is change possible?

- *Unprecedented moment of public investments*
- Keep your eye on the big prize – systems that can link over time...
- Find the best opportunities to leverage change
- Look for easier wins in contexts you can control

Early stakeholder engagement is key!

Authentic stakeholder engagement

- Engage ECE providers early on so they become part of the solution
 - Survey provider use of CCMS. Build on experience. Consider creating a provider technology advisory committee.
- Engage public-sector partners strategically
 - Start with those most engaged. Build on wins. Even small steps matter.
- Consider ECE consumers as key stakeholders
 - What did COVID surveys tell us about the needs and choices of consumers?
- Messaging Matters
 - Lack of information fuels gossip + opposition; transparency fuels engagement.

A roadmap for change

Clarify Vision + Leadership

Where do you want
to go and who needs
to be engaged?

Assess Current Technology

In government,
partners + providers

Craft an RFI

To identify potential
technology
vendors/partners

Engage Stakeholders

State-level staff
Policymakers
Providers
Parents

Technology can modernize the ECE sector and help tackle persistent challenges.

How is it possible to lead change in your state?

How can you keep your eyes on the Big Picture while taking smaller steps along the way?

What next steps are most possible? Most strategic?

What's next?

- **Working collaboratively with other states on next generation technology solutions.**
- **Smaller follow-up meetings for deeper dive on specific topics (please suggest additional topics)**
 - Data standards, security, and trusts
 - Implementing an RFI/RFP process
 - Case studies from states who have implemented new tech
 - Conducting a data/technology assessment
- **Help finding consultants to evaluate capacity of current systems, vet vendors, and more**
- **Other ideas?**



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