PDG B-5

Data Systems Assessment

Project Scope

The Preschool Development Grant Birth through Five (PDG B-5) supports a needs assessment and strategic plan

1 **Needs Assessment**

2 **Strategic Plan**

1A) User Experience

► What is the **current landscape** of programs and supports for B-5 families?

► Where are there **gaps in the quality and availability** of this programming?

► What are the **barriers** to access?

1B) Data Systems

► How **many children are currently served** by the early childhood system?

► How many **unique identifiers** are used throughout the State?

► How many are **waiting** for service?

► How is data **currently flowing through Delaware's systems** and what business processes are supporting this flow?

► What is the **vision for Delaware's early childhood system**?

► What are the **key areas to address** to support availability and access?

► What **potential strategies** – co-developed with families and providers – could help Delaware realize these opportunities?

► Who is **responsible for implementing** the plan?

► How will progress be **measured** and **tracked**?

> The aspiration is for this to become Delaware's next 5-year strategic plan for the B-5 area

Key activities

Key Activities: To achieve this understanding, EY performed the following activities:

1. Meetings

- Conducted over **35 meetings** with key stakeholders from data, technology and other business partners to identify current state practices and pain points

2. Documentation
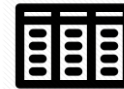
- Discussed current policies and procedures that support the business and data flows for various in scope programs

3. Data and business flows

- Produced **9** data flow diagrams
- Produced **18** business flow diagrams

4. Data Quality Assessment

- Gathered information on data quality issues, particularly the use of the Master Client Index (**MCI**) throughout Delaware's systems and **data quality issues** surrounding the **use of this as a unique identifier**
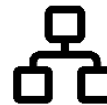
5. Summary

- Produced detailed analytics around specific programs
- Organized observations around **people, process, data, technology and use of unique identifiers**

Key observations and statistics

Summary Statistics

1.	Number of unduplicated children B-5 currently served by the Delaware early childhood system is estimated to be between:	**30,073 - 47,608**
2.	How many children B-5 are waiting for services in the State of Delaware:	**197***
3.	Number of different systems that contain child and family data for families with children aged B-5 receiving services or enrolled in programs across the state:	**15****
4.	Out of the 15 systems, the number of systems that can issue/generate an MCI:	**1**
5.	Out of the 15 systems that manage data on children B-5, this is the number that maintain and use MCI:	**8**
6.	Number of unique identifiers used in the 15 identified systems:	**3**

Key Observations:

- The MCI number can be used as a unique identifier for tracking the number of unduplicated children served by the early childhood system but there are existing challenges that would limit its widespread implementation currently

- There is a lack of Governance with clear, mandated polices that allow for consistency in how data is captured and used throughout DHSS and DOE

- Data collection and entry for enrollment in State programs happens in multiple places and in multiple ways across the State, this makes reporting and use of data difficult

* The date 8/16/2019 does not well represent waitlisted children for eHS and HS because it is just before the start of the new program year. Another snapshot will be taken on 12/1/2019 for an accurate representation. It is also known that there is a waitlist for eCap, however it is not tracked and maintained.
** This number includes 8 systems managed by 3rd party vendors (outside of the State's control).

How calculations of children served by the early childhood system were made:

Step 1: Calculate the minimum number served by the early childhood system:

The number of unduplicated children enrolled in **SNAP, TANF, POC, Medicaid, and CHIP.** DHSS was obtained by DHSS using the MCI # as a unique indicator to eliminate duplicates	**30,073**
Total	**30,073**

Step 2: Calculate the maximum number served by the early childhood system:

This is the minimum number of children served from Step 1 above.	**30,073**
Total number of families with children age B-5 enrolled in the **WIC program**. This was obtained from the third party vendor who manages this data, they do use MCI however could not provide counts by MCI because of restrictions with the vendor.	**11,988**
The total number of children age B-3 enrolled in **Part C** was obtained by the Part C Coordinator.	**1,413**
Total number of families with children age B-5 enrolled in the **Healthy Families America and Nurse Family Partnership programs**. This was obtained from the third party vendor who manages this data, they do use MCI however could not provide counts by MCI because of restrictions with the vendor.	**277**
Total number of children enrolled in **PAT Program**, this number was provided by a third party consultant. Because this number is not entered into eSchool and data on participation is not currently tracked, it is impossible to know if these children are enrolled in any of the other DOE programs.	**490**
The number of unduplicated children served by **ECAP, Head Start and 619** was obtained from eSchool, using student ID as a unique indicator to eliminate duplicates.	**3,129**
Number of children enrolled in the **Early Head Start** program was obtained from the EHS providers because this data is not in eSchool.	**238**
Total	**47,608**

*Please see Appendix A for details on who provided counts for each program

► The total count of children aged B-5 receiving services or enrolled in programs managed by the State of Delaware was obtained from State of Delaware employees and contractors is listed in the table below. There are 3 programs for which the count of children was unable to be obtained:

    ► **Child and Adult Care Food program:** This data is maintained by a third party vendor and they are not currently mandated to provide this data

    ► **Early Childhood Mental Health Consultant:** This program does not serve specific children, but groups of children (such as classrooms)

    ► **Delaware Healthy Children's Program:** The identified point of contact has mentioned this program is synonymous with CHIP

Department	Program	Number of children B-5 enrolled in programs or receiving services	How many children B-5 are waiting for service:
DHSS	Healthy Families America (HFA)	129	0
	Nurse Family Partnership (NFP)	148	0
	Part C Services	1,413	69
	Children Health Insurance Program (CHIP)	2,238	0
	Medicaid	27,418	0
	Temporary Assistance for Need Families (TANF)	1,692	0
	Supplemental Nutrition Assistance Program (SNAP)	17,161	0
	Women Infant and Children (WIC)	11,988	0
	Purchase of Care (POC)	10,346	0
DOE	Parents as Teachers (PAT)	490	0
	Early Head Start (Home visiting)	148	14
	Early Head Start (Center Care)	90	24
	Head Start	1,209	90
	619 Programming	1,943	0
	ECAP Programs	1,532	Not available*
	TOTAL	**77,943**	**197**

* eCap does have a waiting list however it is not tracked

Overview of B-5 Programs and Systems

		Data systems
Programs at a Center or Family Care Facility	Early Head Start Centers	COPA (7), Child Plus (8)
	Head Start / ECAP Centers	COPA (7), Child Plus (8), eSchool (13)
Home Visiting	Healthy Families America (HFA)	Efforts to Outcome (1.ETO)
	Nurse Family Partnership (NFP)	Efforts to Outcome (1. ETO)
	Parents as Teachers (PAT)	Penelope (6)
	Early Head Start (Home Visiting)	COPA (7), Child Plus (8)
Programs at a School District	ECAP School District Programs	Teaching Strategies/GOLD (3), eSchool (13)
	Part B 619 School District Programs	eSchool (13)
Screening and Special Ed Services	Early Childhood Special Education: Part C Birth to 3 / Child Development Watch	CARES (9)
Health, Mental Health and Nutrition Services	Women Infant and Children (WIC)	WOW (2)
	Medicaid / Children's Health Insurance Program (CHIP)	DMES (10), AWW (11)
	Temporary Assistance for Needy Families (TANF)	AWW (11)
	Supplemental Nutrition Assistance Program (SNAP)	AWW (11)
	Child and Adult Care Food Program (CACFP)	COLYAR (4)
	Early Childhood Mental Health Consultants (ECMHC)	QUALTRIX (5)
Funding	Purchase of Care (POC)	POC (12), AWW (11)

Settings (rows: Programs at a Center or Family Care Facility, Home Visiting, Programs at a School District)

Services (rows: Screening and Special Ed Services, Health Mental Health and Nutrition Services, Funding)

Legend: Department Ownership

KIDS	DOE	DHSS

High Level Data Flow

Overview of B-5 Programs and Systems

Type of System	System Names	MCI field included?	Other unique identifiers	Early Childhood Programs supported by system	Age Groups Served by System
Vended	1. Efforts to Outcomes (ETO)	Y	N	NFP, HFA	Birth to adult
	2. WIC on the Web (WOW)	Y	N	WIC	Birth to adult
	3. Teaching Strategies Gold	N	Student ID	ECAP	Birth to Kindergarten
	4. COLYAR	N	N	Child and Adult Care Food Program (CACFP)	Birth to adult
	5. QUALTRIX	N	N	Early Childhood Mental Health Consultant	Birth to adult
	6. Penelope by Athena	N	Y	PAT	Birth to adult
	7. COPA	N	Student ID	ECAP, HS, EHS	Birth to five
	8. ChildPlus	N	Student ID	ECAP, HS, EHS	Birth to five
Program-specific application	9. CARES	Y	N	Part C	Birth to adult
	10. DMES	Y	N	Medicaid, CHIP	Birth to adult
	11. Worker Web (AWW)	Y	N	Medicaid, CHIP, POC, SNAP, TANF	Birth to adult
	12. POC	Y	N	POC	Birth to adult
Application Suite	13. eSchool	Y	Student ID	ECAP, HS, 619	Birth to eighteen
Data Repository	14. MCI	Y	N	Medicaid, TANF, NFP, HFA, Part C, WIC, POC, SNAP, CHIP	Birth to adult
	15. DELSIS	N	Student ID	ECAP, HS, 619	Birth to eighteen

Legend: Department Ownership

KIDS	DOE	DHSS

Key themes

Key Themes	How Delaware manages and uses birth to five data

Why it matters

Use of Unique Identifiers
- ▶ Student ID is used widely throughout the DDOE and is maintained from the time the student enters the Delaware educational system to the time they leave, however this ID is not used across Departments
- ▶ The MCI number is a widely used unique identifier within DHSS, however it is not shared and used throughout the State
- ▶ Although, there are known data quality issues with the MCI number, there are processes in place to review and remediate these as they occur
- ▶ NextGen MCI is currently in the beginning phase and is a high priority project that aims to address several known data quality issues

People
- ▶ Delaware Departments and Divisions operate in silos, which makes it difficult to execute and coordinate projects across the State

Process
- ▶ Lack of functional data governance model within and across Departments, which leads to:
  - ▶ Weak adoption of standard data management practices
  - ▶ Lack of data integration and quality issues
  - ▶ Lack of standard system documentation

Data/ Technology
- ▶ There is a lack of system to system transfer within DOE and between other Departments, which leads to repetitive manual data entry
- ▶ Data collection and entry for enrollment in State programs happens in multiple places and in multiple ways across the State, this makes reporting and use of data difficult

- Lack of insights due to inferior data makes it harder to **serve children in the early child hood system** (e.g. some facilities may have excess capacity vs. others with a waiting list)

- Poor intake experiences lead to **less families applying for programs and services** (e.g. access to web portal for applications)

- Lack of cohesion across data systems leads to manually intensive processes that **increase time and costs** and can also lead to data quality issues (e.g. requesting data from vendors and the lack of a unique identifier across the State)
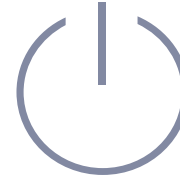
Next steps
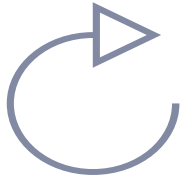
1	2	3
Review and maintain data and business flows	Define future state vision	Develop options and Roadmap

- Data flows are located here:
  https://drive.google.com/drive/folders/1svAv58bv0pZ0eM76KZCqzlFIJTSM4xQn
- Business flows located here:
  https://drive.google.com/drive/folders/10_EQxqlnR1aK1AdIUeCfO6lvwOyfoaE0

Appendix A

Program count information

Delaware
Department of Education

Program count information

► The count of unduplicated children aged B-5 receiving services was obtained from State of Delaware employees and contractors listed in the table below

Department Name	Program Name	Contact	Email
DOE	Early Head Start (Home visiting) - Sussex	Sixto Nunez	Snunez@telamon.org
	Early Head Start (Center Care) - Sussex	Sixto Nunez	Snunez@telamon.org
	Early Head Start (Home visiting) - Kent/New Castle County	Heidi Beck	hlbeck@udel.edu
	Early Head Start (Center Care) - Kent/New Castle County	Heidi Beck	hlbeck@udel.edu
	Head Start - New Castle (excluding Wilmington)	Jeff Benatti	jbenatti@aol.com
	Head Start - Wilmington	Karen Pierce	Kfpierce@wilmheadstart.org
	Head Start - Sussex/Kent County	Sixto Nunez	Snunez@telamon.org
	619 Program	Koester Jennifer	Jennifer.Koester@doe.k12.de.us
	ECAP Program	Koester Jennifer	Jennifer.Koester@doe.k12.de.us
	Parents as Teachers	Christine Stoops	Christine.Stoops@doe.k12.de.us
DHSS	Healthy Families America (HFA)	Zakiya Bakari-Griffin	zakiya.bakari-griffin@cffde.org
	Nurse and Family Partnership Program (NFP)	Zakiya Bakari-Griffin	zakiya.bakari-griffin@cffde.org
	Part C Services	Susan Campbell	Susan.Campbell@delaware.gov
	Child Health Insurance Program (CHIP)	Carolyn Kincaid	carolyn.kincaid@delaware.gov
	Medicaid	Carolyn Kincaid	carolyn.kincaid@delaware.gov
	Temporary Assistance for Needy Families (TANF)	Carolyn Kincaid	carolyn.kincaid@delaware.gov
	Supplemental Nutritional Assistance Program (SNAP)	Carolyn Kincaid	carolyn.kincaid@delaware.gov
	Purchase of Care (POC)	Carolyn Kincaid	carolyn.kincaid@delaware.gov
	Special Supplemental Nutrition Program for Women, Infant and Children (WIC)	Carolyn Sudler	carolyn.sudler@delaware.gov

Appendix B

Data Analytics Reports

Delaware DOE Key Insights

Overview

► There are **6 key systems that support 7 programs** across the DOE. This includes DELSIS, a database of Delaware DOE student IDs

► Most DOE data is stored and managed in the Delaware eSchool application

► DOE has a table which maps Student IDs with MCI numbers

Current process

► Data regarding Delaware children's enrollment across the state is well integrated within eSchool

Opportunities for improvement

► However there is a lack of standard processes for ensuring data is consistently maintained

► There is a high reliance on manual data entry within eSchool, which could lead to data quality issues

DOE Program Profile: Child and Adult Care Food Program (CACFP)

Key Insights:

- CACFP is a US Department of Agriculture (USDA), federally-funded program administered by States, that provides reimbursement for meals served in child and adult day care institutions, also in family or group day care homes

- The State of Delaware contracts with a third party to provide services for this program and data about this program is maintained in a third party system, COLYAR

- **Current contracts** with the third party provider, **only mandate** they provide **data on the total number of meals served**, not the age or demographics of the recipients, therefore **we are unable to obtain data on the count of children B-5 currently** receiving services within this program

- To obtain this data, the State of Delaware will need to revise the terms of the current contract with the vendor and incur additional fees
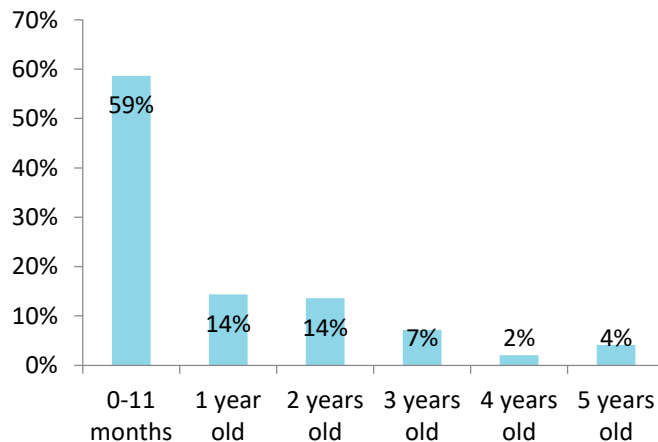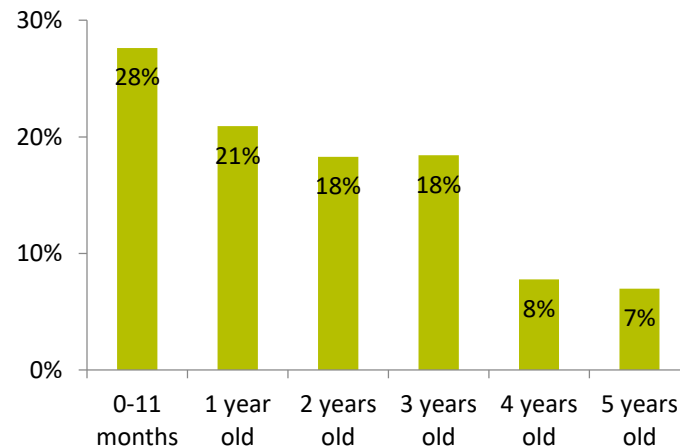
Key Insights

- Total number of families with children aged B-5 enrolled in PAT as of 8/16/2019: **490**
- The program is administered by third-party consultants and data is maintained in a third party system, Penelope by Athena
- **Each child receives a unique identification number for tracking within PAT.** These ID numbers do not carry over when they are enrolled in kindergarten or receive early intervention services
- **There is extensive data and reporting** provided by this program, however this data is **not integrated with other DDOE systems**
- Additional data provided in this report is a summary of the 2018-2019 program year and includes all children who received services. Not all of the children were enrolled for the whole program year

Child Age at Enrollment

Child Age at End of Program Year

DOE Program Profile: Early Head Start (EHS)

Key Insights

- The program is administered by third-party consultants and data is maintained in a third party system, COPA or Child Plus
- **Each** regional **program uses it's own** vended **application to maintain data** on children enrolled in EHS programs
- **The process for enrolling children in EHS is inconsistent across the state**. For example providers and families can access a web portal to enroll in Kent and New Castle Counties, but in Sussex families must enroll at a center
- Currently, **EHS enrollment data is not integrated or maintained with other DDOE systems**
- The date 8/16/2019 does not represent enrollment and waitlisted children well because it is just before the start of the new program year. It is recommended to take another snapshot on 12/1/2019 for more accurate representation

Regional Program	Home Visiting		Center-based	
	Enrolled	Awaiting Services	Enrolled	Awaiting Services
New Castle/Kent County	100	14	44	24
Sussex	48	0	46	0
Total:	**148**	**14**	**90**	**24**

DOE Program Profile: Head Start

Key Insights

- The program is administered by third-party consultants and data is maintained in a third party system, COPA or Child Plus
- **Each** regional **program uses it's own** vended **application to maintain data** on children enrolled in this program
- **The process for enrolling children in HS is inconsistent across the state.** For example providers and families can access a web portal to enroll in Kent and New Castle Counties, but in Sussex families must enroll at a center
- Data regarding Delaware **children enrolled in the HS program is** currently manually **keyed into the eSchool system** maintained by the DDOE. Once entered into eSchool children receive a student ID which will be used as long as the student is enrolled in the DDOE system
- The date 8/16/2019 does not well represent enrollment and waitlisted children because it is just before the start of the new program year. It is recommended to take another snapshot on 12/1/2019 for an accurate representation

Regional Program	Enrolled	Awaiting Services
New Castle (excluding Wilmington)	450	0
Wilmington	72	90
Sussex/Kent County	687	0
Total:	**1,209**	**90**

DOE Program Profile: 619 Program

Key Insights

- **1,943** children are currently **enrolled in the 619 program**, this count includes 3-5 year olds served between July 1 2017 and June 30 2018 (or after)
- **A list of childre**n receiving Part C services **is sent** in an excel file **to Delaware school districts from DHSS** on their 3rd birthday
  - **Each school district then decide**s whether to **key this information directly into eSchool** or whether to wait to see if the child still qualifies for services
  - The lack of guidance and policy around when to enter this data into eSchool has led to **inconsistent capturing of data across the state**

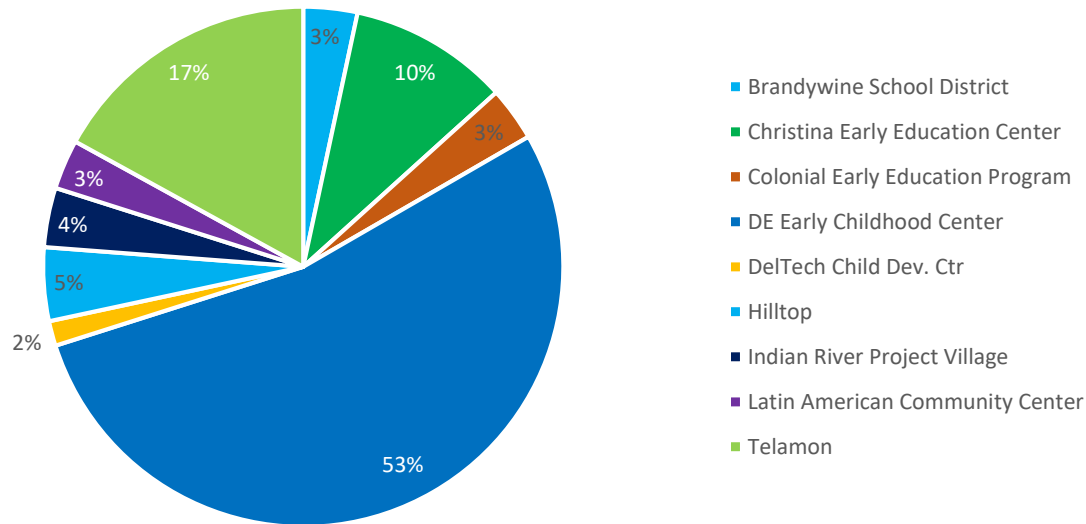| Regional Program	Enrolled	Awaiting Services
New Castle	756	49
Sussex/Kent County	657	20
Total:	**1,413**	**69**

DOE Program Profile: ECAP

Key Insights

- The State funds 845 ECAP seats. However, **1,523** children are currently **enrolled in the ECAP program in** eSchool. The count includes children with start dates between 8.25.16 - 6.18.18; thus, exit information is not accurate.
- **70%** of children enrolled in the ECAP program **attend school at 2 sites (**DE Early Childhood Center and Telamon)

Percentage of children enrolled in ECAP by program site

Legend:
- Brandywine School District
- Christina Early Education Center
- Colonial Early Education Program
- DE Early Childhood Center
- DelTech Child Dev. Ctr
- Hilltop
- Indian River Project Village
- Latin American Community Center
- Telamon

Delaware DHSS Key Insights

Overview	► There are **8 key systems that support 10 programs** across DHSS. This includes the MCI application
Current process	► DHSS data regarding Delaware children's enrollment across state programs is not well integrated across DHSS
	► Data and business processes lack documentation and clear accountability for specific program data and applications
	► The MCI application generates and maintains the MCI number that is used throughout the state. Although, there are known data quality issues there are processes in place to review and remediate these as they occur
Opportunities for improvement	► NextGen MCI is currently in the beginning phase and is a high priority project that aims to address several known data quality issues
	► Current duplication rate for MCI number is estimated to be 2.4%, the target for NextGen MCI is less than 1% duplication

Key Insights:

► The Healthy Families America program is administered by third party consultants contracted by Delaware DHSS

► Data for this program is stored in a third party system, Efforts to Outcome which is maintained by the third party consultants

► There is substantial demographic data available on recipients of these programs that could be used for additional reporting and analytics needs. Examples of data available include:

  ► Age

  ► Date of Birth

  ► Race

  ► Marital Status

  ► Primary language

  ► Geographic zone of service

DHSS Program Profile: Part C Services

Key Insights

- **1,413** children, aged B-3 receiving services as of 8/16/2019
- There are also an additional **400** children **who are not Part c eligible but receiving periodic screenings** because of developmental concerns. All of these children are followed in New Castle County
- **A list of childre**n receiving Part C services **is sent** in an excel file **to Delaware school districts from DHSS** on their 3rd birthday, where they are then evaluated to determine if they qualify for Part B (also known as the 619 program) service

Regional Program	Enrolled	Awaiting Services
New Castle	756	49
Sussex/Kent County	657	20
Total:	**1,413**	**69**

Key Insights

- **The total number of families** with children aged B-5 enrolled in CHIP as of 8/16/2019: **2,238**
- **Eligibility information is maintained in** an application known as Assist Worker Web (**AWW**), **enrollment data** for this program **is maintained** in an application known as **DMES**, which is managed by the Division of Medicaid and Medical Assistance (DMMA)
- A **monthly file** is automatically **sent to the Delaware Department of Education** from the DMES
- A **weekly file is** automatically **sent to DSCYF** (Kids) department from DMES, **a quarterly file** is extracted via OnDemand reports from DMES and **sent to the Kids department as an excel file** via e-mail

Delaware families being enrolled in the Children Health Insurance Program (CHIP) by age range

Age range	Families
1-2	527
2-3	576
3-4	576
4-5	559

Legend:
- 1-2
- 2-3
- 3-4
- 4-5
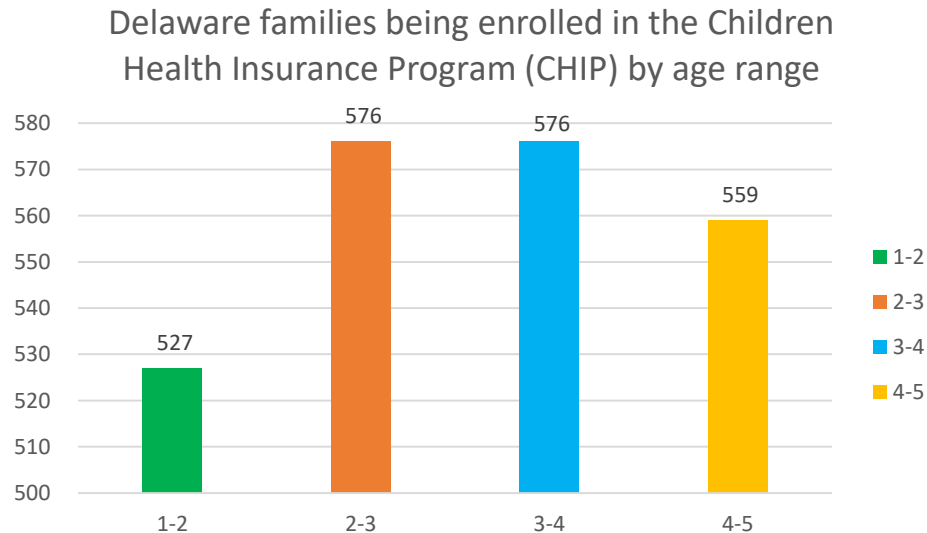
DHSS Program Profile: Medicaid

Key Insights

- **Total number of families** with children aged B-5 enrolled in Medicaid as of 8/16/2019: **26,738** (this excludes the number of children enrolled in CHIP)
- **Eligibility information is maintained in** an application known as Assist Worker Web (**AWW**), **enrollment data** for this program **is maintained** in an application known as **DMES**, which is managed by the Division of Medicaid and Medical Assistance (DMMA)
- A **monthly file** is automatically **sent to the Delaware Department of Education** from the DMES
- A **weekly file is** automatically **sent to DSCYF** (Kids) department from DMES, **a quarterly file** is extracted via OnDemand reports from DMES and **sent to the Kids department as an excel file** via e-mail

**Delaware families being enrolled in Medicaid by age range**
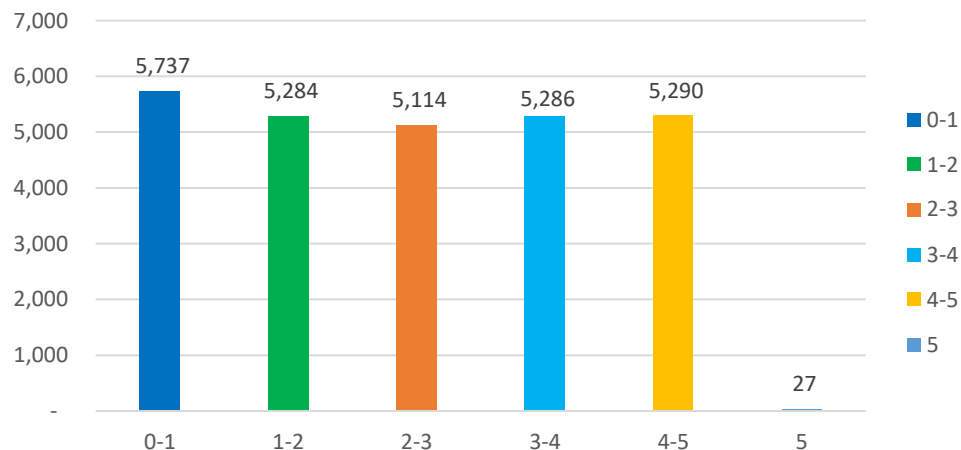
Age range	Families
0-1	5,737
1-2	5,284
2-3	5,114
3-4	5,286
4-5	5,290
5	27

Key Insights

- **Total number of families** with children aged B-5 enrolled in TANF as of 8/16/2019: **1,692**
- **Data** for this program **is maintained in** an application know as **Assist Worker Web (AWW)**
- Eligible applicants can apply through the assist website (https://assist.dhss.delaware.gov/), however to complete the application process they must sign a contract of mutual responsibility at the Division of Social Services Office
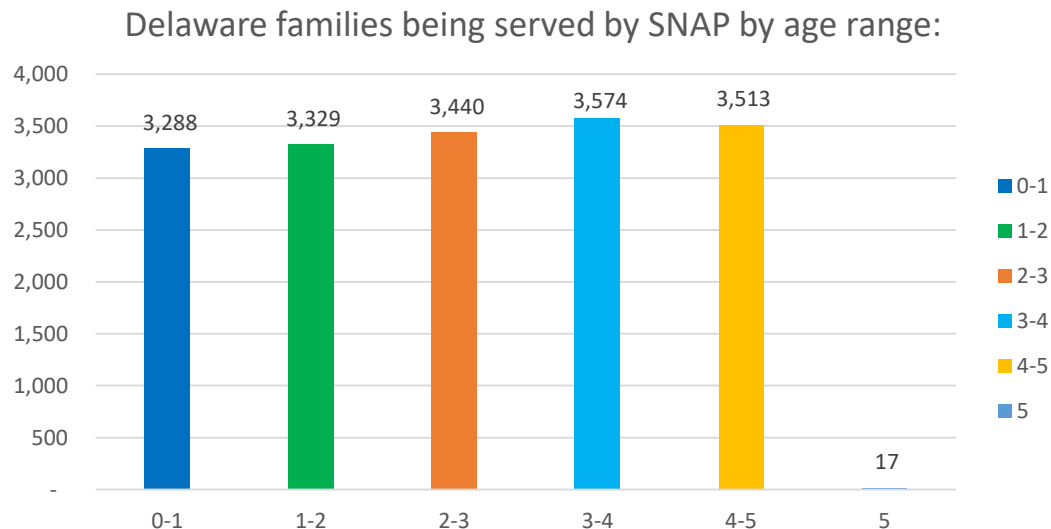
Delaware families being served by TANF by age range:
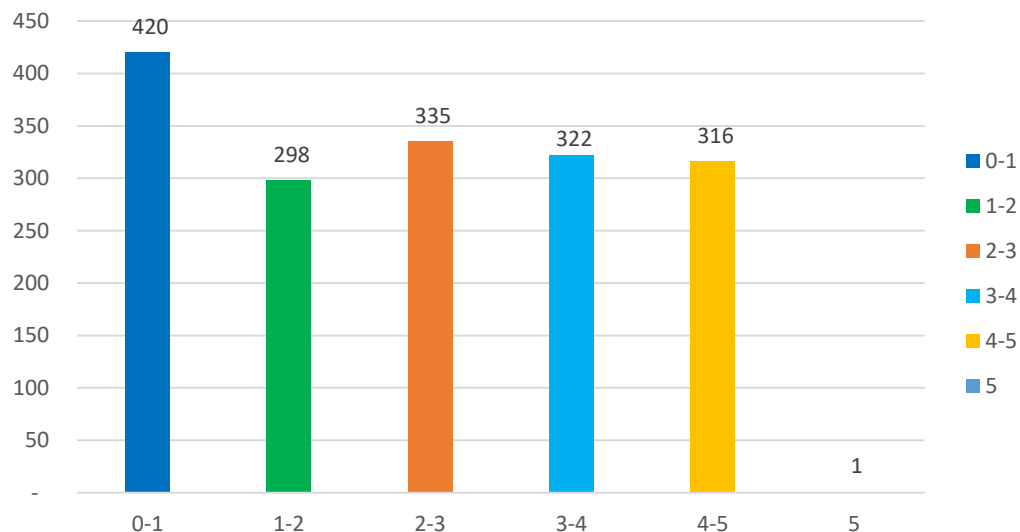
DHSS Program Profile: Supplemental Nutrition Assistance Program

Key Insights

- **Total number of families** with children aged B-5 receiving SNAP benefits as of 8/16/2019: **17,161**
- **Data** for this program **is maintained in** an application know as **Assist Worker Web (AWW)**
- Eligible applicants can complete the application process through the assist website (https://assist.dhss.delaware.gov/)
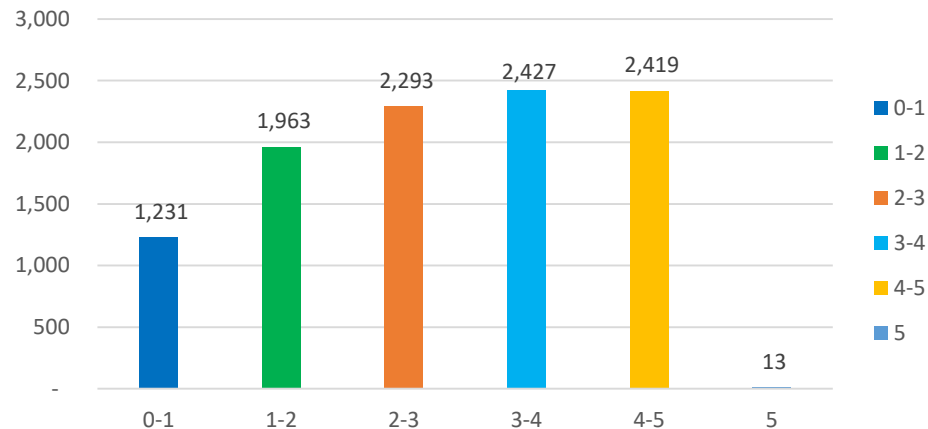
Delaware families being served by SNAP by age range:

Key Insights

- **Total number of families** with children aged B-5 enrolled in the POC program as of 8/16/2019: **10,346**
- **Data** for this program **is maintained in** an application know as **Assist Worker Web (AWW)**
- Eligible applicants can complete the application process through the assist website (https://assist.dhss.delaware.gov/)

Delaware families being served by POC by age range:

Key Insights

- **Total number of families** with children aged B-5 receiving WIC benefits as of 8/16/2019: **11,988**
- **Data for the Delaware WIC** program **is hosted and managed by the Maryland WIC program in a system known as WIC on the Web (WOW)**
- Requests for data and reporting need to be made through Maryland WIC

Delaware families being served by WIC by age range:
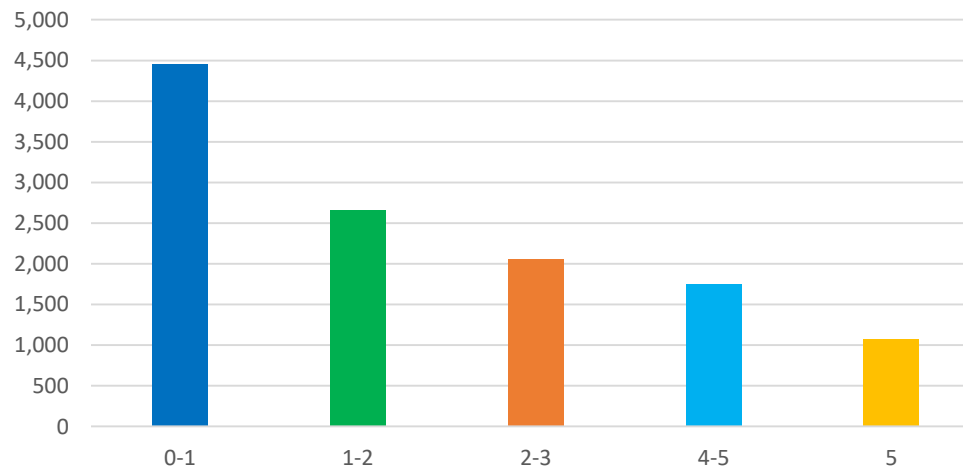
Program Profile: Early Childhood Mental Health Consultants

Overview

- The Early Childhood Mental Health Consultant program is administered by third-party consultants and data is maintained in a third party system administered by the University of Delaware
- The program is not administered to individual recipients, but to a specific program (which can sometimes include an individual child)

Current process

- The system of record for this program is currently QUALTRIX, however the program is currently in the testing phase, as it prepares to transition it's data from QUALTRIX to FOCUS
- Classroom wide student count is available and the average classroom size can be used to estimate the number of students enrolled in the program