

Children's Services Act Five-Year Outcomes Report FY2018 – FY2022



**Office of
Children's Services**

In partial fulfillment of the 2022 – 2023 Strategic Plan of the
State Executive Council for Children's Services
(adopted December 2021)

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**Children's Services Act
Five-Year Outcomes Report
FY2018 – FY2022**

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Executive Summary

In its 2020-2024 Strategic Plan (updated December 2021), Virginia's State Executive Council (SEC) for Children's Services developed metrics to support the implementation of outcome-driven practices. The Strategic Plan directed that:

"Office of Children's Services (OCS) will complete a five-year CSA outcomes report at the state and local level and develop and disseminate service-specific outcome reporting and tools for localities."

OCS has previously provided state and local outcomes through its Continuous Quality Improvement (CQI) Dashboard (recently renamed the Data and Outcomes Dashboard). Statewide outcomes are also released annually in the OCS annual outcome indicators report.

This report aggregates the outcomes for five years of data on youth receiving CSA-funded services from FY2018 to FY2022. Services were categorized using the CSA Service Placement Types¹ (SPT) and grouped as follows:

- Community-Based Services,
- Special Education/Special Education Wraparound Services,
- Foster Care/Independent Living Services, and
- Residential Services.

A subset of domains from the Child and Adolescent Needs and Strengths (CANS), the mandatory assessment tool required to access CSA funding, were selected to reflect outcomes while youth are receiving services: Child Behavioral/Emotional Needs, Child Strengths/Resiliency, Life Functioning, Parent/Guardian Strengths and Needs, and School. **This analysis reports the percentage of youth demonstrating improvement and decline in their most recent CANS assessments compared to their initial scores.**

Significant high-level findings² from this report were:

In all domains, a majority of youth improved between assessments. The percentage of youth showing improvement after their initial assessment increased as the time between assessments increased. After a certain point, however, continued participation in services was less beneficial, and youth with the most extended periods between evaluations were less likely to show improvement compared to their initial assessment.

- The highest percentage of improvement (62%) occurred in the Child Strengths domain and the lowest rate (51%) occurred in the Behavioral/Emotional and School domains. Less than one-third of the youth had declined scores between assessments across all domains.

Generally, the lowest percentage of improvement occurred among youth with less than six months between assessments (i.e., the shortest time in service). The rate of youth with domain declines increased as the time between assessments increased for all domains except the Parent domain. The percentage of youth with a decline in the Parent domain was lower among youth with more time between their assessments.

¹ The full list of SPTs is found in Appendix A.

² All data for this report are derived from the CSA Local Expenditure, Data and Reimbursement System (LEDRS) and the CANVaS database (the system of record for CSA Child and Adolescent Strengths and Needs (CANS) data. Additional details on the data sources and methodology can be found in Appendix C.

Improvement between a youth's initial and most current assessment was impacted by the types of services they participated in. Initial domain scores varied by service grouping. Higher initial domain scores (indicating more significant needs), such as those found among youth receiving residential and special education services, resulted in a higher frequency of improved domain scores at the most recent assessment in every domain but Parent/Guardian.

- Performance in the Child Strengths domain was least affected by service grouping. Between 71% and 73% of youth improved or showed no change between assessments regardless of services received. The other domains had variable improvement depending on the services received. Among youth receiving foster care services, a smaller percentage showed improvement in the Behavioral/Emotional, Life, and School domains than youth that received other services. However, this group had the largest rate of improvement in the Parent domain. Youth receiving special education/wraparound services had the highest percentages of no change in all domains except the School domain (where these youth had the highest rate of improvement compared to youth receiving other services). Youth participating in residential services were the most likely to show improvement from initial domain scores, partly because the high initial scores for these particular youth created a greater opportunity for improvement between assessments.

The report's final section compares service participation rates by youth characteristics (race, sex, age at initial assessment, and initial referral source). Youth demographic characteristics in the service groups were relatively equal. There were a few significant variations, but most were associated with characteristics with small population sizes. African American youth was an example of variation that was likely not due to the small population size. These youth participated in community-based services at notably lower rates and special education/wraparound services at notably higher rates compared to the overall CSA youth population in these services.

Implications of this report reinforce the importance of completing the CANS, as the primary standardized assessment, in service planning. Reviewing child CANS outcomes over the "life" of service utilization can help to identify when the optimal period of services has passed, indicated by declining domain scores.

Following the release of this statewide five-year report, OCS will provide a supplemental dashboard of locality-specific outcomes made available within the Data and Outcomes Dashboard on the CSA website.

Introduction

This report responds to the Strategic Plan of the State Executive Council (SEC) for Children's Services to support the implementation and support of outcome-driven practices by developing a five-year CSA services-specific outcomes report.

The report summarizes outcomes from the Child and Adolescent Needs and Strengths (CANS), defined as domain score changes between the initial and most current assessment, as of January 2023, for youth that received CSA-funded services in FY2018 through FY2022. Services are grouped into the following categories: Community-Based Services, Special Education/Special Education Wraparound Services, Foster Care/Independent Living Services, and Residential Services. The CANS domains in this analysis were the Child Behavioral/Emotional Needs, Child Strengths/Resiliency, Life Functioning, Parent/Guardian Strengths and Needs, and School domains.

The report provides the percentage of youth who showed improvement and decline in their most current assessments compared to their initial scores. These outcomes are provided for the total population, by time between assessments, service category participation, and child demographic characteristics.

This report reinforces the importance of employing the CANS in service planning. A periodic review of CANS domain scores during service delivery can improve the likelihood that services are having, or continuing to have, a positive influence on the well-being of the children and families receiving services. Monitoring the specific types and duration of services provided through the CSA in conjunction with program outcomes also supports a locality's service planning at a community level.

Five-Year Population (FY2018 – FY2022)

What youth are included in this report?

Youth receiving CSA-funded services between FY2018 and FY2022 are included in this five-year analysis. More specifically, youth whose earliest CSA assessment³ occurred during this period and who have at least one follow-up assessment within this period. A total of 16,913 unique youth were identified for analysis⁴.

What are the characteristics of youth included in the analysis?

Youth in the sample were primarily White (62%), followed by African American (27%) and Bi-racial (5%). The largest age group at the time of their initial assessment was 14 to 17 years (36%), and there were more males in the population (58%) than females (42%). Local departments of social services (LDSS) referred one-half (50%) of the youth. Local schools (27%) and community services boards (16%) were the second and third most frequent referral sources. These demographic characteristics are summarized in the tables below.

³ CSA assessments refer to the Child and Adolescent Needs and Strengths (CANS) instrument.

⁴ For additional details on matching methodology and a breakdown of youth that were excluded from the analysis, please refer to Appendix C.

Total Youth Identified (FY2018-FY2022): 16,913

Race	# CSA Population	% CSA Population
African American	4,561	27.0%
American Indian or Alaskan Native	49	0.3%
Asian	208	1.2%
Bi-racial	881	5.2%
Native Hawaiian/Other Pacific Islander	31	0.2%
Race Unknown/Undetermined	677	4.0%
White	10,506	62.1%

Age at Initial CANS	# CSA Population	% CSA Population
5 to 9 years	5,408	32.0%
10 to 13 years	5,249	31.0%
14 to 17 years	6,082	36.0%
18+ years	174	1.0%

Sex	# CSA Population	% CSA Population
Female	7,129	42.2%
Male	9,784	57.8%

Referral Source	# CSA Population	% CSA Population
CSB (Community Services Board)	2,766	16.4%
DJJ (Court Services Unit)	898	5.3%
DOE (Local School)	4,594	27.2%
DSS (Local Department of Social Services)	8,366	49.5%
Family	200	1.2%
Health Department	5	0.0%
Interagency Team/Office	13	0.1%
Other	71	0.4%

What was the duration of services?

A youth's total length of stay is counted as *only* the reported number of days between the start and end of the service, as reported over the five years.

	Total Length of Stay in Period	
	# CSA Population	% CSA Population
<6 Months	5,442	32.2%
6 to <12 Months	4,063	24.0%
12 to <24 Months	4,068	24.1%
24 to <36 Months	2,039	12.1%
36+ Months	1,301	7.7%

Service Types: What Services Did Youth Receive?

Service types are defined using the CSA Service Placement Types (SPT). Localities use these categories in reporting to receive state reimbursement for expenditures under CSA. In the sample population, each youth received CSA-funded services in an average of 1.5 of the four identified service type groups (Community-Based Services, Foster Care/Independent Living, Residential (Congregate Care), and Special Education/ Special Education Wraparound Services). This average varied depending on the specific service groupings each youth received. Those receiving residential services received services in the most overall groups (2.3), while those receiving special education services received services in the fewest groups (1.5).

Service Grouping	Average Number of Groups/Youth
Total CSA Population	1.5
Community-Based Services	1.7
Foster Care/Independent Living	2.1
Residential	2.3
Special Education/Wraparound Services	1.5

By considering the service groups, performance trends in the included CANS domains can be further explored.

- Community-based services, accessed by 75% of the population, include those provided in a community setting. These service placement types include Community-Based Services, Community Transition Services, Intensive Care Coordination (i.e., High Fidelity Wraparound), Intensive In-home Services, and Psychiatric Hospital/Crisis Stabilization Services.
- Foster Care/Independent Living services, accessed by 32% of the population, include maintenance payments for youth in foster homes and independent living stipend payments to youth ages 16-21. These service placement types include Family Foster Care Basic Maintenance and Activities Payments, Treatment (Therapeutic) Foster Care, Independent Living Stipend, and Independent Living Arrangement.
- Residential services, accessed by 21% of the population, include treatment and educational programs for youth in a congregate care setting. These service placement types include Temporary Care Facilities and Services, Congregate Care Educational Services, Group Homes, and (Psychiatric) Residential Treatment Facilities.
- Special Education/Special Education Wraparound, accessed by 23% of the population, includes services and support for youth with educational disabilities. The service placement types included in this grouping are Special Education Private Day Placement and Wraparound (WRAP) Services for Students with Disabilities.

Average Service Duration (LOS) for Each Service Type Group

	# Youth Receiving	% Youth Receiving	Average LOS in Service Group (days) (FY18-22)	Average Total LOS in CSA (days) (FY18-22)
Community-Based Services	12,698	75.1%	238	405
Foster Care/Independent Living	5,459	32.3%	414	538
Residential	3,516	20.8%	261	531
Special Education/WRAP	3,828	22.6%	550	648

Percentage of Youth by Service Duration



One-half (50%) of youth receiving community-based services had a service duration of less than six months, with an average of 238 days, or roughly eight months. The largest proportion (34%) of youth who received foster care/independent living services also had a service duration of less than six months in these services. The second most prevalent length was 12 to less than 24 months (25%). The average service duration in foster care/independent living services was 414 days, or roughly 14 months. Seventy-six percent (76%) of youth who received residential services had a service duration of less than one year, similar to those receiving community-based services (77%). The average residential services service duration was nearly nine months (261 days). Service duration for youth that received Special Education/WRAP services was the most equally distributed of all service groups. The largest proportion of youth spent at least a year and less than two years in these services (26%), and the smallest percentage was three or more years in services (14%). The average service duration in these services was 550 days, or about 18 months.

Summary of CANS Outcomes

The Code of Virginia and related policy of the State Executive Council for Children's Services require a uniform assessment instrument to be utilized with all children and families receiving services funded through the CSA. In 2008, the State Executive Council chose the Virginia version of the Child and Adolescent Needs and Strengths (CANS) to serve this purpose. All youth receiving CSA-funded services are required to be evaluated at the time of entry into services with the CANS. Periodic reassessments are required at least annually over the course of services and at the time of service closure and may be more frequent to reflect local practices.

The CANS is a structured assessment developed by John S. Lyons, Ph.D. to assist in the planning and management of services to children and adolescents and their families. The instrument is among the most widely employed tools of its type for the assessment of youth and families across the country. The CANS provides numerical ratings to indicate the presence and urgency/prominence of specific needs and strengths. The use of the CANS ensures a strengths-based assessment focused on enhancing communication among service providers and families. In addition to service planning, the CANS identifies the most common needs and strengths at the individual and system levels, measuring progress in meeting those needs. While other outcomes may be of interest (e.g., objective indicators of school performance, presence of specific behavioral health symptoms), the CANS is the only uniform data consistently available and accessible for this report.

The Office of Children's Services supports a secure software platform, CANVaS 2.0, for all local CSA programs across the Commonwealth. Only trained and certified CANS assessors may complete and enter assessments into CANVaS 2.0. Data for this analysis were queried using the CANVaS database, limiting results to those youth with completed CANS (Age 5-21 version)⁵, with responses present for each domain measured.

The five CANS domains⁶ selected for this analysis were:

- Child Behavioral/Emotional Needs – 10 items assessing the youth's behavioral and emotional needs.
- Child Strengths/Resiliency – 11 items intended to describe assets of the youth and family.
- Life Functioning – 15 items assessing the youth's functioning in their individual, family, peer, School, and community situations.
- Parent/Guardian Strengths and Needs – 19 items rating the parent/guardian's ability to care for the child.
- School – 3 items assessing aspects of school functioning.

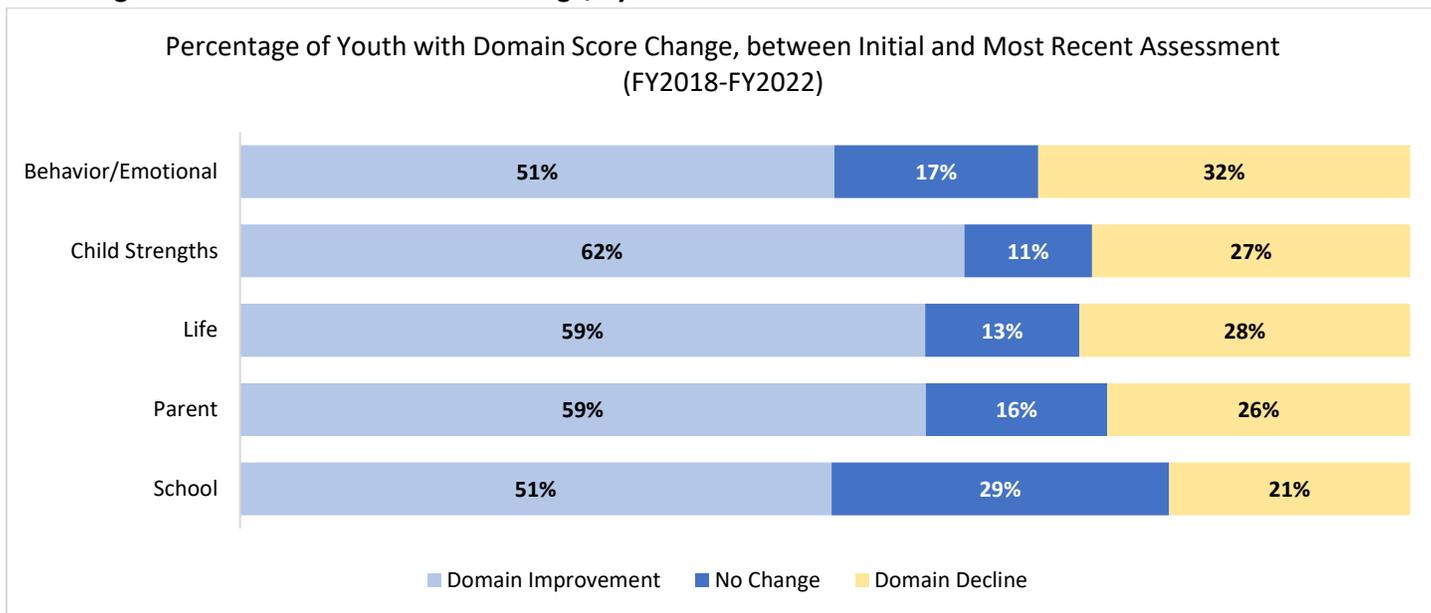
Individual item scores range from zero (0) to three (3). The highest score on any needs item (3) reflects a need for immediate attention, while zero (0) reflects no concerns. The highest score on any strengths item (3) demonstrates the absence of the strength, while a score of zero (0) reflects a significant identified strength for the youth. Any change in the youth's most recent domain score, compared to the initial assessment score, was used to determine each youth's outcome in that domain. Domain improvement is defined as a lower score on the most recent assessment. Domain decline is defined as a higher score on the most recent assessment.

⁵ There is also a CANS age 0 – 4 version but the number of youth receiving that version is too small for detailed aggregate analysis.

⁶ Each CANS domain is further defined in Appendix B.

Domain Performance: Overall Findings

Percentage of Youth with Domain Score Change, by CANS Domain



Sixty-two (62) percent of youth showed improvement between their initial and most recent assessments in the Child Strengths domain: the highest percentage of improvement among the five domains. The smallest percentage of improvement was reported in the Behavioral/Emotional and School domains (51%). School domain scores also had the largest incidence of no change between assessments (29%). This results in the School domain may be at least partially due to fewer (3) items in this domain (others have at least eight items), presenting less "room" to show improvement or decline.

Domain decline, defined as a higher score on the most recent assessment than on the earliest evaluation, was most prevalent in the Behavior/Emotional Needs domain (32% of youth). The domain with the smallest proportion of youth with domain decline (21%) was the School domain.

In summary, most youth (between 68 and 80 percent) either improved from or maintained their initial status in all domains included in this analysis. A portion of youth domain scores declined from initial levels. This group consistently represented less than one-third of the total population in each domain's results.

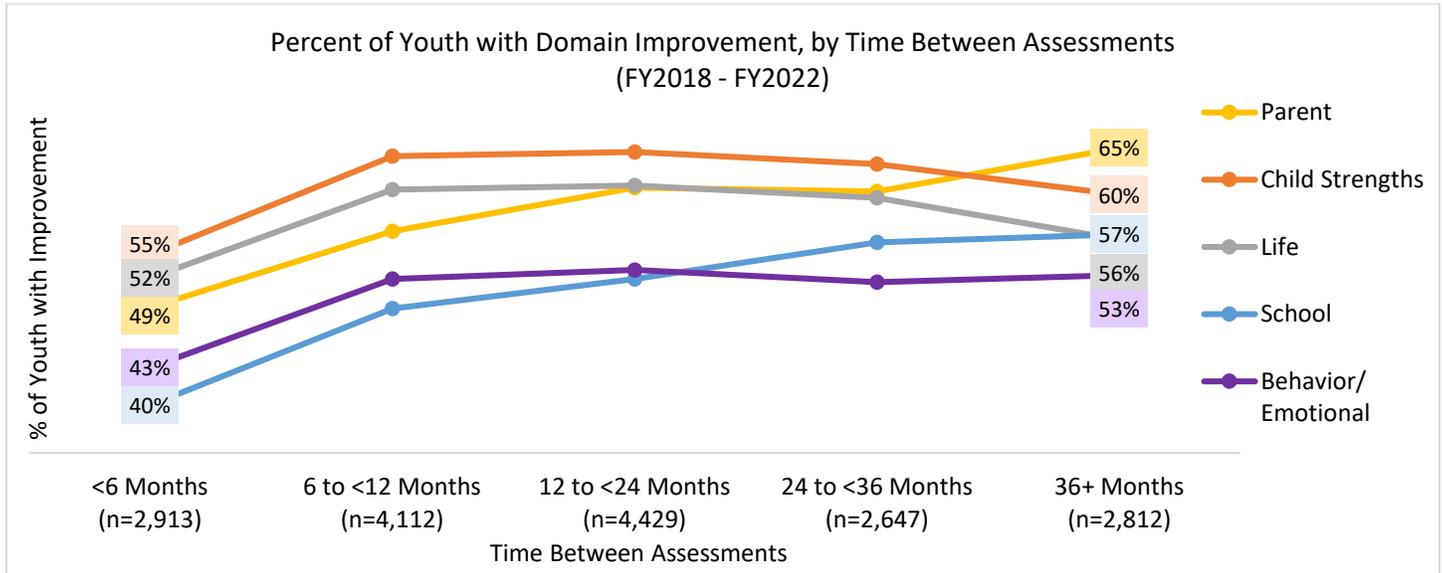
Domain Performance: Time Between Assessments

Analyses of the CANS outcomes indicate that youth with more time between assessments were generally more likely to show improvement than youth with relatively less time between evaluations. The charts below group youth by the time between their initial and most recent assessments and the percentage that improved or declined in each CANS domain.

A review of initial scores within each domain revealed that those with more extended periods between assessments started with higher initial scores than those with less time between evaluations. Higher initial scores provide more opportunities for improved scores in later assessments. Youth with lower (less severe) initial domain scores have a

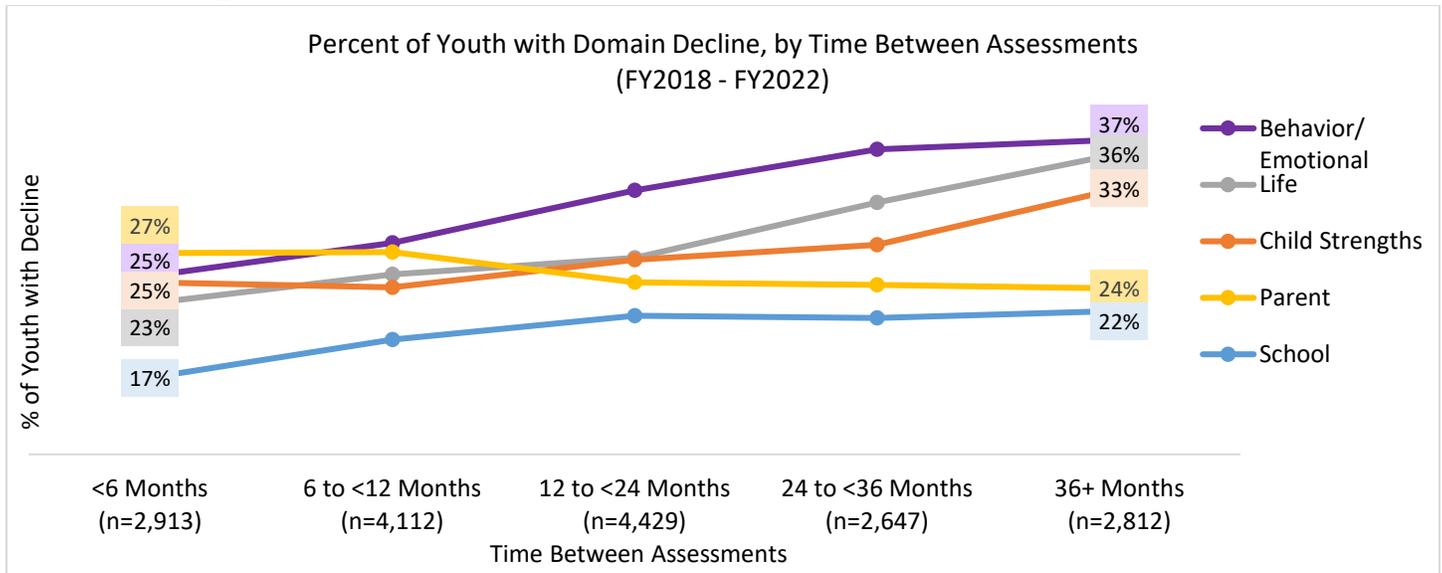
narrower "window" to improve their scores on subsequent assessments. Additionally, lower initial domain scores present greater potential for scores to decline (worsen) on later assessments and indicate domain decline.⁷

Percent Improvement by Time Between Assessments



Domain score improvement over time⁸ was most significant for the Parent (+16%) and School (+17%) domains over the full 36+ months. Progress in these domains was consistent over time. The general trend for the other three domains (Life, Behavioral/Emotional, and Child Strengths) was that the percentage of youth with improved scores increased sharply in the first 6 – 12 months of services, then decreased after the time between assessments exceeded 12 months. This suggests that, at least in those three domains, the benefits from ongoing services plateau or decrease as time goes on.

Percent Decline by Time Between Assessments



⁷ Appendix D provides average initial CANS domain scores for total youth and by time between assessments.

⁸ Appendix E provides the percentage of youth with domain score change (improvement/decline) by time between assessments.

Domain score decline over time was greatest for the Behavioral/Emotional Needs, Life, and Child Strengths domains. In those three domains, approximately one in four youth with fewer than six months between assessments had declined scores in the most current compared to initial domain scores. For those with longer periods between assessments, the likelihood of domain decline increased as the time increased.

After one year, around 24% of youth consistently showed a decline in the Parent domain and 22% in the School domain, regardless of how much more time had passed between the initial and most current assessments. These findings suggest that some youth showed worsening scores in all the reported CANS domains as time in services increased.

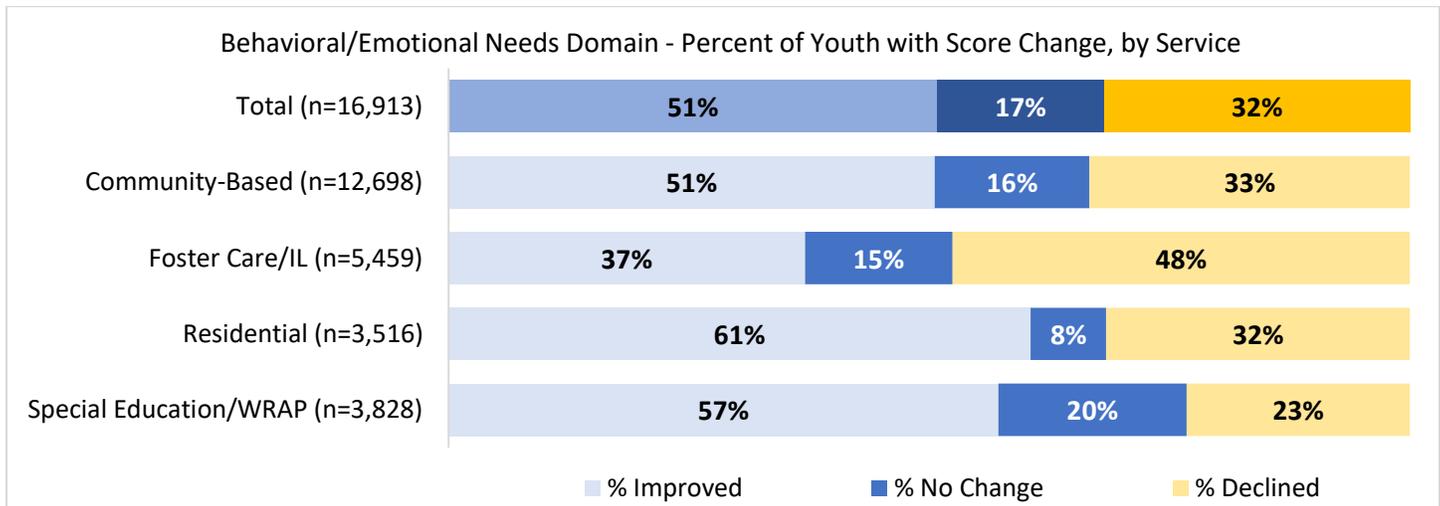
Declining domain scores were evidenced over the entire five-year period in the School (22%) and Behavioral/Emotional domain (37%). The percentage of youth with decline increased as the time between assessments increased for all domains except the Parent domain. The rate of decline in the Parent domain was lower among youth with more time between evaluations.

Domain Performance: Service Type

Performance trends in the CANS domains can be further explored using the service type groups. Youth in this analysis received services in an average of 1.5 service groups. The same child may appear in more than one service group's results.

Individual CANS Domain Performance by Service Type

Child Behavioral/Emotional Needs



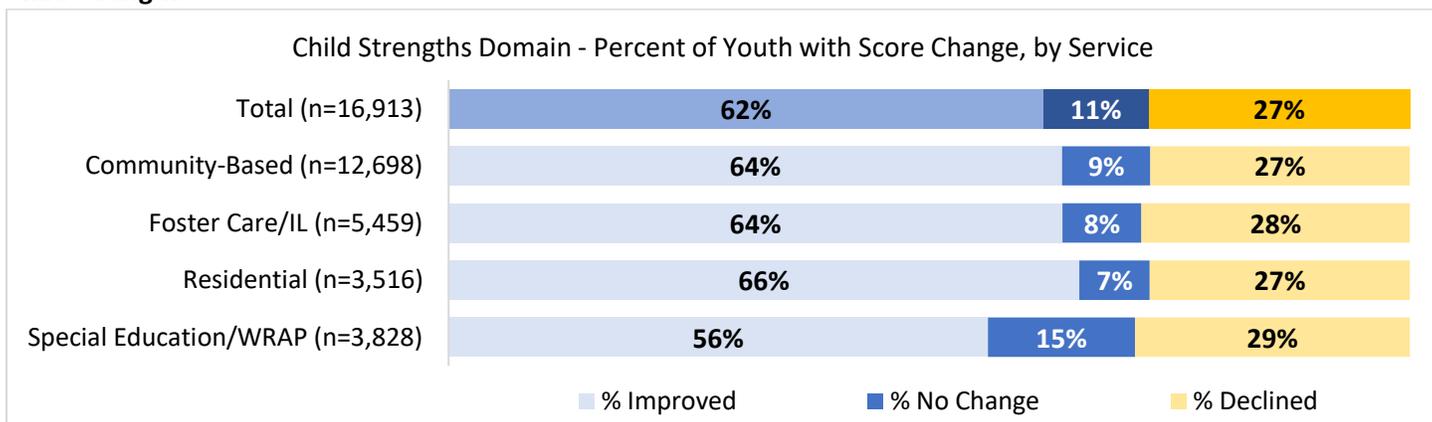
Overall, one-half (51%) of the total CSA population improved their Child Behavioral/Emotional Needs domain scores from the initial assessment, about one-third (32%) had worsened scores, and less than one-fourth (17%) had no change in domain total over time. Performance was similar for the subgroup of youth that received community-based services, largely because so much of the total sample (76%) received them.

Nearly one-half (48%) of youth who received foster care/independent living services declined in performance from the initial assessment and had the lowest group percentage with improved scores (37%). The average initial score for youth

who received these services (5.0) was lower for youth receiving other services.⁹ Lower initial domain scores limited the opportunity to decrease the domain score further and demonstrate improvement. A possible explanation is that a larger proportion of the youth receiving foster care services are younger and enter services due to circumstances impacting their parents (e.g., parental substance misuse) and not reflected in the youth's CANS scores in this domain.

Youth that received residential services had the highest percentage of improvement (61%). These youth also had, on average, the highest initial scores among all service groupings (10.2 for all youth receiving residential services; 12.2 for youth that demonstrated improvement; and all other service groups had a total initial domain score that averaged between 7 and 9 overall and among youth that improved). The higher initial scores for these youth may contribute to the consistently higher percentage of improvement for those receiving residential services across all domains measured.

Child Strengths

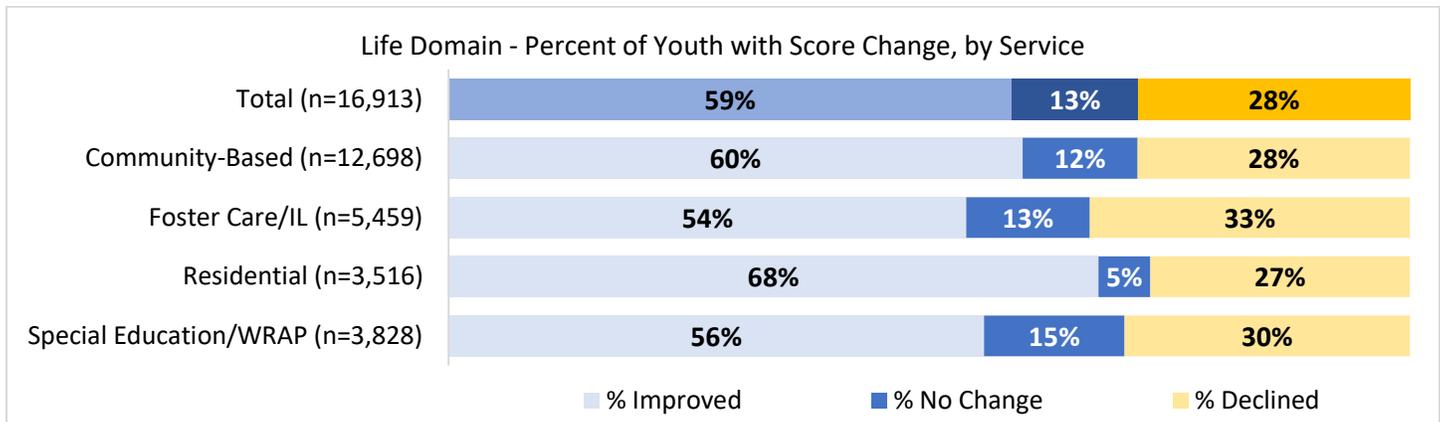


Sixty-two (62) percent of the total population improved their Child Strengths domain scores from the initial assessment, 27% had worsened scores, and 11% had no change. Performance was similar for most service type subgroups, except for a lower percent improvement and higher percent decline and no change for Special Education/WRAP services (56% improved, 15% no change, 29% decline).

This domain also had the highest percentage of youth with improvement across all measured domains, regardless of the time between assessments, except for those with three or more years between assessments (The Parent domain had the highest percentage of improvement among youth with three or more years between evaluations).

⁹ Appendix D provides average initial CANS domain scores for total youth and by services received.

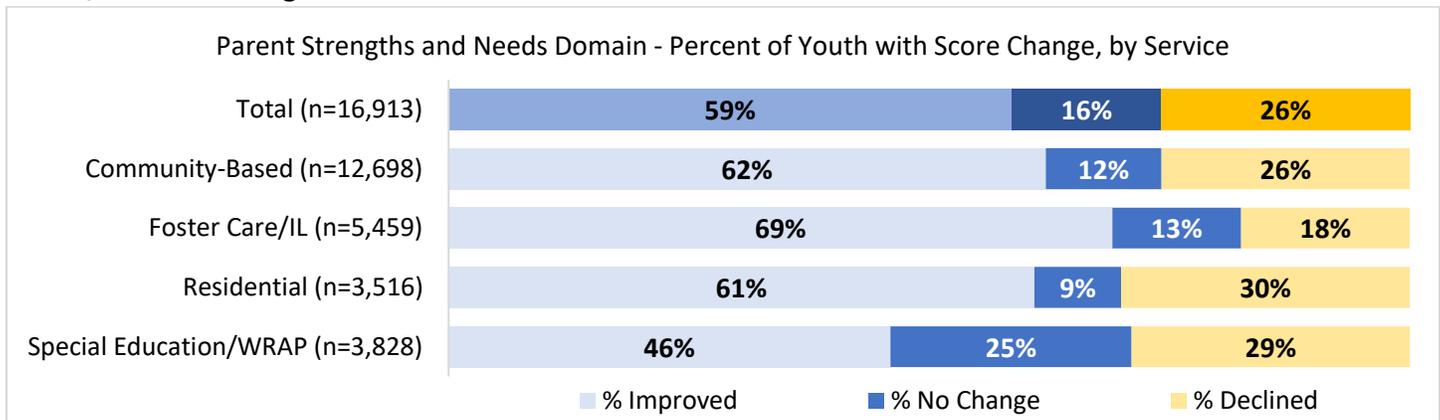
Life Functioning



Over half (59%) of the CSA population improved their Life Functioning domain scores from the initial assessment, 28% had worsened scores, and 13% had no change. Performance was similar across all subgroups of services received except for residential services (68% improved).

Progress in this domain was most likely for those youth with the shortest periods between assessments. The percentage of youth showing improvement trended down after a year between evaluations and the percentage indicating a decline trended up over time. Those youth with the shortest stay in services (i.e., community-based and residential services) were the largest groups with improvement and minimal decline.

Parent/Guardian Strengths and Needs

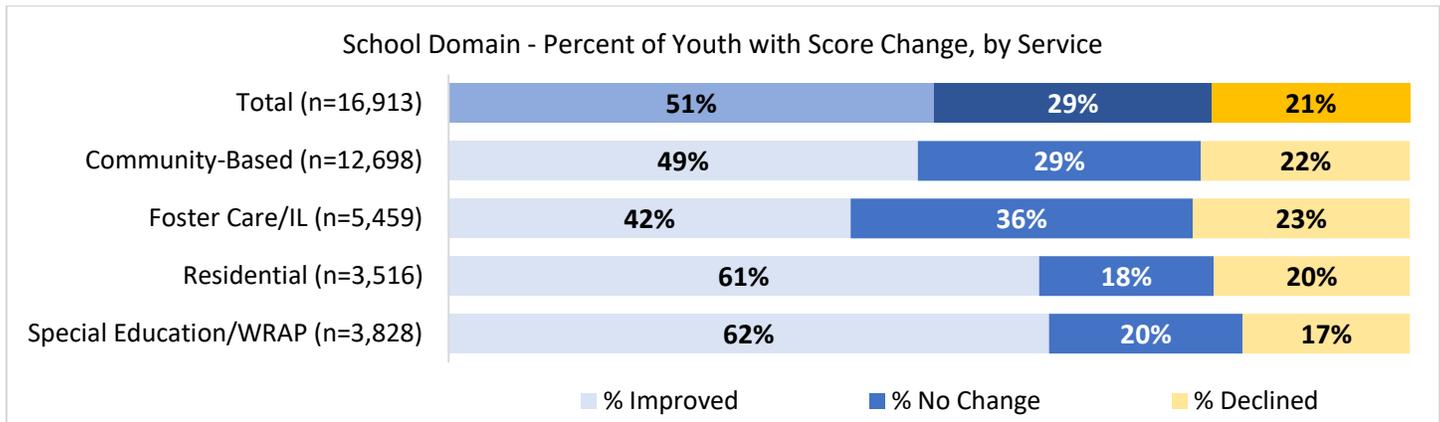


More than one-half (59%) of the total population improved their Parent/Guardian Strengths and Needs domain scores from the initial assessment, 26% had worsened scores, and 16% had no change in domain total between evaluations. The largest deviations from the overall population were among youth receiving foster care/independent living services (69% improved and 18% declined) and Special Education/WRAP services (46% improved and 25% showed no change in score). The high percentage of improvement among youth in foster care could be related to higher scores at the initial assessment (average of 19.6 domain total, compared to a total population average initial score of 14.5), creating a greater opportunity for improved scores.

The percentage of improvement in this domain was highest among youth with more extended periods between assessments. The Parent domain was the only domain measured where the rate of decline decreased consistently with time. Youth receiving foster care/independent living and/or SPED services generally had longer durations of services.

Among these specific youth, the largest percentages with improvement were for youth with three or more years between assessments (78% and 55%, respectively).¹⁰

School



Half (51%) of the total CSA population improved their School domain scores from the initial assessment, about one-fifth (21%) had worsened scores compared to the initial, and 29% had no change in domain total between evaluations. The proportion of youth with a decline in this domain was similar regardless of service type (20% to 23%), except for youth that received special education/WRAP services (17% saw a decline in this domain). Youth who received community-based (49%) or foster care/independent living services (42%) were less likely to show improvement in this domain compared to youth who received residential (61%) or special education/WRAP services (62%).

On average, youth who had improved School domain scores in their most recent assessment had a higher initial score¹¹ (4.3) than youth with no change (1.4) or declined scores (1.6). Higher initial scores provide a larger "window" to lower scores (and achieve improvement) in later assessments. For example, youth who received foster care services had the lowest average initial score (2.1) versus other service groupings (ranging from 4.1 to 4.8). A lower average initial score influenced the lowest percentage of improvement (42%) compared to youth who received SPED services, whose average initial score (4.1) was the highest total domain score among service groupings. The high average initial score for youth who received SPED services also limited the opportunity for declined performance (higher scores) in the later assessment, seen in this group's lowest percentage of domain decline (17%) compared to youth who received other services.

In summary, most youth generally had improvement or no change from initial assessment scores across domains. Performance in the Child Strengths domain was least affected by service grouping. Between 71% and 73% of youth improved or showed no change between assessments regardless of services received. The other domains showed variability depending on the services received. Among youth receiving foster care services, a smaller percentage showed improvement in the Behavioral/Emotional, Life, and School domains than youth that received other services. However, this group had the largest rate of improvement in the Parent domain. Youth receiving special education/wraparound services had the highest percentages of no change in all domains except School (where these youth had the highest rate of improvement compared to youth receiving other services). Youth receiving residential services had some of the highest percentages of youth with improvement in all domains except Parent; the high initial scores for these particular youth likely influenced the high improvement rates between assessments.

¹⁰ Appendix F provides percentage of youth with domain score change by services received and time between assessments.

¹¹ Appendix D provides average initial CANS domain scores for total youth and by services received.

Service Type Participation by Youth Characteristic

The table below provides the percentage of youth who received services by specific characteristics. Rows may total more than 100% as youth received services from an average of 1.5 service groups. Characteristics whose percentage was marked with an asterisk (* or **) in the table above represent service types for those characteristics notably different from the CSA total population.

Characteristic	# Total CSA Population	% Community-Based Services	% Foster Care/IL Services	% Residential Services	% SPED/WRAP Services
Total	16,913	75.1%	32.3%	20.8%	22.6%
African American	4,561	69.8%*	32.6%	20.7%	27.4%*
Bi-Racial	881	84.3%**	42.3%**	21.6%*	14.6%**
White	10,506	77.5%	31.8%	21.1%	20.3%
Other	288	74.7%	18.4%**	17.4%**	27.8%*
5 to 9	5,408	73.7%	44.5%*	6.2%*	22.6%
10 to 13	5,249	74.6%	26.5%	21.9%	27.2%
14 to 17	6,082	78.5%	27.0%	33.3%*	16.9%
18+ years	174	11.5%**	11.5%**	3.4%**	86.2%**
Female	7,129	82.4%*	37.6%*	22.4%*	12.1%*
Male	9,784	69.8%	28.4%	19.6%	30.3%
CSB	2,766	92.0%	5.1%	42.0%*	12.0%
DJJ	898	80.2%	10.5%	46.3%*	5.0%
DOE	4,594	42.6%*	2.2%*	8.3%	66.5%*
DSS	8,366	86.3%	60.9%*	17.1%	4.1%
Other	289	88.2%	8.7%	42.6%*	16.6%

Note: Other race includes youth identified as Asian, American Indian or Alaskan Native, or Native Hawaiian or Other Pacific Islander. Youth whose race could not be determined were not included in the racial comparisons and represented approximately 3% of the entire group. Other referral source includes referrals from the family, health department, interagency team/office, and "other" sources.

* Percentage was at least one standard deviation (SD) away from the population average

** Percentage was at least two SDs away from the population average

Figures in *green* are significantly above the average and those in *red* are significantly below the average

Appendix A: CSA Service Placement Type Groups

Service Placement Type Group	SPT Number and Description
Community-Based Services	1 Community Service
	2 Community Transition Services
	3 Intensive Care Coordination
	4 Intensive In-Home
	13 Psychiatric Hospital/Crisis Stabilization Unit
Special Education/Wraparound Services	5 Wraparound Services for Students with Disabilities
	6 Special Education Private Day Placement
Foster Care/Independent Living Services	8 Foster Care Basic Maintenance & Basic Activities Payments
	10 Therapeutic Foster Home
	11 Independent Living Stipend
	12 Independent Living Arrangement
Residential Services	14 Temporary Care Facility and Services (Congregate Care Setting)
	15 Group Home (Congregate Care Setting)
	16 Residential Treatment Facility(Congregate Care Setting)
	17 Congregate Educational Services - for Medicaid Funded Placements
	18 Congregate Educational Services - for Non-Medicaid Funded Placements

Appendix B: CANS Domain Items

Child Behavioral/Emotional Needs (10 items)

- Psychosis
- Impulsivity/Hyperactivity
- Depression
- Anxiety
- Oppositional
- Conduct
- Adjustment to Trauma
- Anger Control
- Substance Use
- Eating Disturbance

Child Strengths/Resiliency Factors (11 items)

- Family
- Interpersonal
- Optimism
- Educational
- Vocational
- Talents/Interests
- Spiritual/Religious
- Community Life
- Relationship Permanence
- Child Involvement in Care
- Natural Supports

Life Functioning (15 items)

- Family
- Living Situation
- Sleep
- Social Functioning
- Sexual Development
- Recreation
- Developmental
- Communication
- Judgment
- Acculturation
- Legal
- Medical
- Physical Health
- Daily Functioning
- Independent Living (for youth ages 14-21 only)

Parent/Guardian (19 items)

- Supervision
- Involvement with Care
- Knowledge
- Organization
- Social and Family Connections
- Residential Stability
- Physical Health
- Mental Health
- Substance Use
- Developmental
- Accessibility to Child Care Services
- Family Stress
- Self-Care/Daily Living
- Employment/Educational Functioning
- Educational Attainment
- Legal/Criminal
- Financial Resources
- Transportation
- Safety

School (3 items)

- School Behavior
- School Achievement
- School Attendance

Appendix C: Methodology

The data for this analysis were retrieved from the CSA services expenditure system of record, the Local Expenditure, Data, and Reimbursement System (LEDRS). Localities upload their child-specific, CSA-funded expenditures for reimbursement into LEDRS. This system was queried for youth identifying information (i.e., name, date of birth, social security number, race, and gender) and information on services provided through CSA (i.e., service type, date range of services received). The CSA assessment system of record, CANVaS2.0, was queried for youth identifying information and assessment information (i.e., evaluation dates and domain scores of CANS assessments). Using Microsoft PowerBI, youth identifying data from LEDRS was matched to the identifying information collected from the CANVaS system to associate service information with the youth's CANS results.

LEDRS has service information dating to FY2017. To identify youth receiving services before the start of the reporting period, both LEDRS and CANVaS systems were used. Youth receiving services before FY2018 and those whose earliest CANS assessments were between FY2013 and FY2017 were excluded from the analysis as they began their interactions with CSA before the period for this report.

There are two CANS assessment versions, depending on the youth's age. This report used only the CANS for youth ages five years and above. For youth under five years old for a portion of the period, the earliest comprehensive CANS (Initial or Reassessment) from the 5+ years assessment version was used as the initial starting point to measure change. The earliest Initial assessment was used for youth already five or older during the reporting period. The total Initial score on each domain was compared to the total domain score of the most recent CANS. If the total was lower for the most recent assessment, the child was identified as demonstrating improvement in that domain. If the total score was higher, the child was identified as having a domain decline for that domain.

Subgroups of youth were assessed for significant variation from the total CSA population using either ANOVA one-factor ($p < 0.05$, or 95% confidence level) testing or by calculating a weighted standard deviation for the entire population and identifying subgroup averages that were more than two weighted standard deviations from the population mean. The large sample size helps to minimize the error of these calculations, but the needs and circumstances of youth participating in certain services are likely to co-vary with performance. This should be considered when interpreting results.

Match limitations

- LEDRS: **26,964** unique FIPS/child ID pairs with services, beginning services between FY2018 and FY2022.
- CANS identifying information match: **25,648** unique FIPS/child ID pairs from LEDRS successfully matched to identifying information in CANS with at least one ConsumerID (CANS identifier) returned for the pair (95% matched).

Of the youth in LEDRS successfully matched to CANS information:

- CANS assessment match: **18,896** returned an initial assessment no earlier than FY2018 and no later than FY2022, and **16,913** of that population returned subsequent assessments for any date in FY2018 through December 2022, where all domains included had complete responses.

After accounting for data quality limitations, the final dataset was **16,913** unique FIPS¹² and child ID combinations from LEDRS with qualifying CANS assessments.

¹² FIPS = Federal Information Processing Standard, the accepted coding for identifying jurisdictions within a state.

Appendix D: Initial Score by Time Between Assessments and Services Received

Initial Assessment Score Detail by Time Between Assessments (FY2018-FY2022)

CANS Domain (possible score range)	Initial Score by Assessment Change	Youth Total	<6 Months	6 to <12 Months	12 to <24 Months	24 to <36 Months	36+ Months
Child Behavioral/ Emotional Needs (0-30)	All Youth	6.8	6.0	6.7	6.9	7.0	7.2
	Improved	9.0	8.2	8.7	9.2	9.4	9.4
	No Change	4.4	4.0	4.6	4.5	4.8	5.0
	Declined	4.4	4.6	4.3	4.2	4.4	4.7
Child Strengths/ Resiliency Factors (0-33)	All Youth	16.3	15.5	16.1	16.5	16.7	16.9
	Improved	18.2	17.0	17.8	18.4	18.8	19.1
	No Change	14.7	14.7	14.5	14.4	14.7	16.1
	Declined	12.6	12.8	12.4	12.4	12.7	13.1
Life Functioning (0-45)	All Youth	9.5	8.3	9.3	9.6	10.0	10.5
	Improved	11.4	10.2	11.0	11.5	11.9	12.6
	No Change	6.5	5.7	6.1	7.0	7.7	8.3
	Declined	6.9	6.9	6.8	6.5	7.0	7.7
Parent/Guardian Strengths and Needs (0-57)	All Youth	11.1	10.6	10.6	11.3	11.6	11.5
	Improved	14.6	13.4	13.7	14.9	15.9	14.9
	No Change	4.3	6.0	4.6	3.8	3.0	2.7
	Declined	7.3	9.4	7.7	7.0	6.1	6.2
School (0-9)	All Youth	2.9	2.6	2.8	2.9	3.2	3.3
	Improved	4.3	4.2	4.3	4.3	4.4	4.4
	No Change	1.4	1.4	1.3	1.2	1.5	1.8
	Declined	1.6	1.7	1.6	1.6	1.7	1.8

Initial Assessment Score Detail by Service Participation (FY2018-FY2022)

CANS Domain (possible score range)	Initial Score by Assessment Change	Youth Total	Community- Based	Foster Care/IL	Residential	SPED/ Wraparound
Child Behavioral/ Emotional Needs (0-30)	All Youth	6.8	6.8	5.0	10.2	7.6
	Improved	9.0	9.1	7.9	12.2	9.2
	No Change	4.4	4.4	3.3	8.6	5.3
	Declined	4.4	4.4	3.3	6.9	5.5
Child Strengths/ Resiliency Factors (0-33)	All Youth	16.3	16.3	15.6	18.5	16.8
	Improved	18.2	18.1	17.8	20.3	18.9
	No Change	14.7	15.0	13.2	17.9	14.6
	Declined	12.6	12.4	11.1	14.5	13.8
Life Functioning (0-45)	All Youth	9.5	9.2	7.4	13.2	11.6
	Improved	11.4	11.1	9.7	14.9	13.2
	No Change	6.5	5.8	3.8	11.0	10.0
	Declined	6.9	6.6	4.9	9.4	9.2
Parent/Guardian Strengths and Needs (0-57)	All Youth	11.1	12.1	15.6	10.9	6.5
	Improved	14.6	15.1	19.6	13.5	9.6
	No Change	4.3	5.2	3.2	5.6	3.1
	Declined	7.3	8.0	9.3	7.1	4.6
School (0-9)	All Youth	2.9	2.7	2.1	3.6	4.1
	Improved	4.3	4.1	3.9	4.7	4.8
	No Change	1.4	1.2	0.6	1.9	3.2
	Declined	1.6	1.5	0.9	1.9	2.6

Appendix E: Percentage of Youth with Score Change by Time Between Assessments

Percentage of Youth with Domain Improvement by Time Between Assessments Group

	Total CSA Population % Improved	<6 Months (n=2,913)	6 to <12 Months (n=4,112)	12 to <24 Months (n=4,429)	24 to <36 Months (n=2,647)	36+ Months (n=2,812)
Behavior/Emotional	50.8%	43.4%	52.1%	53.0%	51.8%	52.5%
Child Strengths	61.9%	54.5%	64.2%	64.6%	63.4%	60.4%
Life	58.6%	52.2%	60.9%	61.3%	60.1%	56.0%
Parent	58.6%	49.3%	56.8%	61.1%	60.7%	65.0%
School	50.5%	39.7%	49.2%	52.1%	55.7%	56.5%

Percentage of Youth with Domain Decline by Time Between Assessments Group

	Total CSA Population % Declined	<6 Months (n=2,913)	6 to <12 Months (n=4,112)	12 to <24 Months (n=4,429)	24 to <36 Months (n=2,647)	36+ Months (n=2,812)
Behavior/Emotional	31.8%	25.5%	28.4%	32.9%	36.5%	37.3%
Child Strengths	27.2%	24.9%	24.5%	26.9%	28.2%	33.1%
Life	28.3%	23.1%	25.6%	27.0%	31.8%	36.1%
Parent	25.9%	27.5%	27.6%	24.9%	24.7%	24.4%
School	20.6%	16.6%	19.9%	22.0%	21.8%	22.4%

Appendix F: Percentage of Youth with Score Change by Time Between Assessments and Service Participation

Domain Improvement by Time Between Assessments and Service Participation

CANS Domain	Services Received	< 6 Months	6 to < 12 Months	12 to < 24 Months	2 to < 3 Years	3 Years+
Behavioral/ Emotional	Community-Based	44.4%	53.4%	53.5%	49.8%	48.8%
	Foster Care/Independent Living	28.3%	36.1%	38.4%	35.3%	44.0%
	Residential	62.4%	67.0%	64.5%	57.9%	52.6%
	Special Education/Wraparound Services	44.1%	50.1%	55.8%	61.1%	61.2%
Child Strengths/ Resiliency Factors	Community-Based	56.6%	65.9%	67.1%	65.3%	61.5%
	Foster Care/Independent Living	50.8%	64.6%	65.7%	68.7%	65.3%
	Residential	61.9%	69.3%	68.6%	63.9%	62.5%
	Special Education/Wraparound Services	43.4%	55.2%	56.4%	57.9%	57.9%
Life Functioning	Community-Based	54.1%	62.0%	62.7%	60.9%	55.8%
	Foster Care/Independent Living	42.6%	52.5%	56.9%	56.0%	56.8%
	Residential	71.7%	76.0%	71.4%	65.5%	57.0%
	Special Education/Wraparound Services	40.0%	52.5%	57.4%	58.8%	57.2%
Parent	Community-Based	51.5%	59.6%	65.6%	65.8%	69.6%
	Foster Care/Independent Living	50.2%	62.9%	71.7%	75.8%	77.8%
	Residential	49.9%	60.4%	61.7%	58.7%	67.0%
	Special Education/Wraparound Services	28.3%	34.3%	44.3%	46.7%	55.3%
School	Community-Based	39.3%	48.6%	51.7%	52.7%	51.8%
	Foster Care/Independent Living	25.2%	39.2%	43.0%	45.6%	50.5%
	Residential	57.5%	62.6%	62.9%	61.2%	60.8%
	Special Education/Wraparound Services	48.6%	59.0%	58.6%	67.5%	66.1%

Domain Decline by Time Between Assessments and Service Participation

CANS Domain	Services Received	< 6 Months	6 to < 12 Months	12 to < 24 Months	2 to < 3 Years	3 Years+
Behavioral/ Emotional	Community-Based	25.2%	28.5%	33.9%	41.1%	43.1%
	Foster Care/Independent Living	36.9%	46.7%	49.1%	53.8%	47.9%
	Residential	22.6%	23.5%	28.6%	35.9%	41.4%
	Special Education/Wraparound Services	17.9%	18.4%	23.9%	22.8%	26.3%
Child Strengths/ Resiliency Factors	Community-Based	24.6%	24.4%	26.3%	28.8%	34.2%
	Foster Care/Independent Living	26.8%	26.7%	28.1%	26.8%	30.6%
	Residential	21.5%	22.2%	25.6%	30.1%	32.3%
	Special Education/Wraparound Services	25.9%	23.0%	27.2%	28.4%	32.6%
Life Functioning	Community-Based	23.0%	25.4%	27.1%	33.0%	37.9%
	Foster Care/Independent Living	26.9%	32.4%	32.2%	36.6%	36.8%
	Residential	18.5%	20.0%	22.5%	31.0%	37.9%
	Special Education/Wraparound Services	26.6%	27.3%	26.0%	30.2%	33.6%
Parent	Community-Based	27.5%	27.9%	24.2%	25.4%	23.7%
	Foster Care/Independent Living	23.0%	20.9%	16.3%	14.8%	15.0%
	Residential	34.9%	31.2%	28.7%	33.2%	26.3%
	Special Education/Wraparound Services	27.2%	31.3%	28.5%	28.7%	29.0%
School	Community-Based	17.4%	20.2%	22.4%	24.0%	26.2%
	Foster Care/Independent Living	18.4%	23.0%	22.4%	24.0%	24.0%
	Residential	14.4%	17.2%	20.0%	22.5%	24.1%
	Special Education/Wraparound Services	13.8%	15.2%	20.8%	16.2%	17.6%