

Using Updated AEPS®-3 Cutoff Scores to Determine Eligibility for IDEA Services

The AEPS-3 Test is a curriculum-based assessment that yields a comprehensive, detailed description of children's development in eight critical areas. This AEPS-3 developmental profile provides information necessary to develop appropriate goals and outcomes, select teaching and intervention content, link goals and outcomes to everyday routines and activities, and monitor progress over time. The AEPS-3 Test has a set of *cutoff scores* that can be used to inform children's eligibility for early intervention/early childhood special education (EI/ECSE) services (Bricker et al., 2022; Toland et al., 2022).

Using curriculum-based assessments such as the AEPS-3 Test for eligibility decision-making is supported by Division for Early Childhood Recommended Practices because these measures offer detailed and valid information about children's developmental status across important areas of development. Unlike norm-referenced standardized tests, results from curriculum-based assessment tools are directly relevant and applicable to formulating IFSPs and IEPs, developing subsequent teaching and intervention content, and tracking child progress.

Guidelines for Using AEPS-3 Cutoff Scores

There are three essential considerations when using the AEPS-3 cutoff scores to inform eligibility decisions:

Use multiple sources of information. It is critical to collect information about a child from multiple sources to ensure you gather an authentic, accurate, and comprehensive picture of a child's development. We recommend that you pair AEPS-3 Test results interpretation with informed clinical opinion and/or information collected via other informal or formal assessments in the eligibility decision-making process.

Involve parents and other caregivers. Individuals who provide care for the child should be involved in eligibility determination or corroboration. Caregivers may share information useful to score AEPS-3 Test items, assist with completing the assessment, or help summarize information and interpret results. You should use a completed AEPS-3 Family Report or Family Assessment of Child Skills to understand a child's daily routine, family priorities and concerns, and family perspectives on the child's current level of development.

Confirm state requirements. Eligibility requirements differ across states, provinces, and territories. Many require administration of a standardized norm-referenced test as well as data gathered from other sources. You can use the AEPS-3 Test for determining eligibility if your state guidelines permit: 1) any valid and reliable instrument/method, or 2) informed clinical opinion as a primary method of eligibility determination.

Updated AEPS-3 Test Cutoff Scores

Because determining valid cutoff scores for use with AEPS-3 is a complex undertaking based on collecting and analyzing data for children from birth to 72 months of age, assembling an adequate empirical base for cutoff scores is necessarily an *iterative* process. Since publication of AEPS-3, subsequent rounds of data collection expanded the sample size at target age intervals and resulted in adjusted cutoff scores in seven developmental areas. These cutoff scores are generally higher than previously published cutoff scores across most areas of AEPS-3, with Fine Motor, Gross Motor, Literacy, and Math cutoff scores decreasing in a few age intervals. The revised cutoff scores were developed using the 1.96 conditional standard errors below the age-group mean (N = 1,076). However, the Social-Communication area cutoff scores continued to be problematic. Consequently, an alternative interim strategy was adopted to determine cutoff scores in this area.

For the Social-Communication area, 10 early childhood specialists with advanced degrees and 20 or more years of experience working with children with and without disabilities independently scored the 15 area goals across 12 age intervals established for cutoff scores. Goal scores were based on expert understanding and observations of typical child development in social-communication. Mean scores and standard deviations were calculated for

each cutoff score age interval. Using 1.96 standard deviations below the age-group mean¹, new Social-Communication cutoff scores were determined for each age interval. As noted, empirical data were used to determine cutoff scores in all other areas. Table 1 contains the revised cutoff scores for all areas.

Table 1. AEPS-3 Test revised cutoff scores by developmental area at 6-month age intervals (v4.12.24)

Age interval	Fine Motor	Gross Motor	Adaptive	Social-Emotional	Social-Communication	Cognitive	Literacy	Math
0–6	0	1	0	0	2	0	0	0
7–12	2	7	2	2	7	1	0	0
13–18	5	13	3	5	9	3	1	0
19–24	8	16	6	10	12	8	3	0
25–30	10	18	8	14	13	10	4	0
31–36	11	20	15	20	13	19	7	1
37–42	13	20	18	24	18	21	12	4
43–48	13	21	20	27	21	22	14	5
49–54	13	21	22	28	22	26	14	6
55–60	13	23	23	31	25	28	19	8
61–66	13	24	24	31	27	29	20	10
67–72	14	26	26	33	28	30	24	16

Note. Scores at or below the cutoff are flagged for service eligibility within a given area. Cutoff scores for the 0–6 month age interval should be viewed with caution because the sample size was small.

Eligibility classification accuracy was computed with the two scores at or below 1.96 standard deviations (i.e., Social-Communication area) or 1.96 conditional standard errors (i.e., all other seven areas) below the age-group mean rule. Table 2 provides the classification accuracy results.

Table 2. Eligibility classification accuracy by 6-month age intervals**

Age interval	Sensitivity	Specificity	False Positive	False Negative	Accuracy	Over Identification	Under Identification
0–6	100	11	89	0	24	76	0
7–12	80	25	75	20	43	50	7
13–18	88	37	63	12	52	45	3
19–24	89	47	53	11	62	35	4
25–30	83	58	42	17	71	20	9
31–36	94	77	23	6	89	7	4
37–42	97	52	48	3	72	27	1
43–48	81	63	37	19	74	15	12
49–54	80	58	42	20	72	15	12
55–60	66	64	36	34	66	13	21
61–66	68	62	38	32	65	21	14
67–72	74	66	34	26	69	19	11

***Note:* All percentages are rounded to the nearest integer.

¹When computing revised Social-Communication area cutoff scores, standard deviation was used in score calculation instead of standard error because there were only 10 raters. The rule of 1.96 standard deviations below the age-group mean was applied to ensure score calculation consistency with other developmental areas. Additionally, 1.96 standard deviations or errors above or below the age-group mean mark the points within which 95% of the observations lie (i.e., 95% confidence interval). The 1.96 standard deviation and 1.96 conditional standard errors below the age-group mean refer to 2.5% of the normal distribution area.

AEPS-3 developers continue to collect and analyze field test data to increase the number of children at all age intervals and ensure that the cutoff scores are as accurate and useful as possible. Updates will be posted at www.aepsinteractive.com and shared in the AEPS-3 newsletter.

References

Bricker, D. & Johnson, J. J. (Eds.). (2022). *AEPS-3 Volume 2: Assessment*. In D. Bricker, C. Dionne, J. Grisham, J. J. Johnson, M. Macy, K. Slentz, & M. Waddell, *Assessment, Evaluation, and Programming System for Infants and Children, Third Edition (AEPS-3)*. Brookes Publishing Co.

Toland, M., Grisham, J., Waddell, M., Crawford, R., & Dueber, D. (2022). Scale evaluation and eligibility determination of a field test version of the Assessment, Evaluation, and Programming System, Third Edition. *Topics in Early Childhood Special Education*, 42(2), 150–161. <https://doi.org/10.1177/0271121420981712>