

Chicago Longitudinal Study: Social-Emotional Mediators

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CLS Social-Emotional Data Overview: The following report reviews the social-emotional mediators in the Chicago Longitudinal Study (CLS). Data sources include teacher reports of the following: students' social-emotional maturity (grades 1-6; e.g., "takes responsibility for actions," "interacts well with others," "is self-confident"); assertive social skills (grades 6, 7; e.g., "expresses ideas willingly," "comfortable as a leader"); peer social skills (grades 6, 7; "makes friends easily"); acting out behavior (grades 6, 7; e.g., "disruptive in class"); shy/anxious behavior (grades 6,7; e.g., "withdrawn," "does not express feelings"), frustration tolerance (grades 6, 7; e.g., "copes well with failure," "accepts things not going his/her way"), task orientation (grades 6,7; e.g., "completes work," "well organized"), and behavior problems/learning problems (grades 6, 7; e.g., "difficulty following directions," "poorly motivated to achieve"). Selected specific items measured in repeated years of teacher reports were included as well: gets along with peers, shows responsibility, is self-confident, and accepts thing not going his or her way (these items are also included as components of some of the above composite scales). Student self-report data were gathered during grade 10 in the areas of trouble-making behavior, depression, peer affiliations, and future optimism. Also included in this report, are indicators of school remedial services in grades 1 through 12, indicators of juvenile delinquency between ages 10 and 18, and adult arrest records through age 22.

Appendix A describes each social-emotional variable ready for use in analysis or used in creating this report, including relevant statistical properties of each.

Mean Comparisons of Social-Emotional Indicators: Table 1 displays descriptive statistics and the mean values of the major social-emotional indicators, by gender, CPC preschool, school-age program involvement, and extended intervention involvement. For dichotomous variables, the incidence (percentage) is shown rather than a mean. *Note: the syntax for these comparisons is in Appendix B.* Results are summarized below:

- **Gender:** In general, girls had significantly more favorable scores than boys (e.g. higher on social-emotional maturity, lower on arrests). One exception to this is shy/anxious behavior, where girls have higher scores than boys. Some constructs showed no difference between genders (see table 1).
- **CPC preschool:** Children who attended some CPC preschool were rated (or rated themselves) more favorably than those with no CPC preschool in social-emotional maturity, assertive social skills, peer social skills, frustration tolerance, total competence, accepting things not going his/her way, depression, special education placement, trouble-making behavior, adult and juvenile arrests.
- **School-age program:** Children involved in the school-age program (regardless of preschool involvement status) had more favorable scores on social-emotional maturity, trouble-making behavior, and special education placement than those not in the school-age program.
- **Extended intervention:** Children involved in extended intervention (those who received both CPC preschool *and* the school-age intervention) showed some additional benefits beyond either of these interventions alone. These children had more favorable scores on social-emotional maturity, assertive social skills, peer social skills, frustration tolerance, total competence, trouble-making behavior, future optimism, total problem scores, depression, and special education placement.

Social-Emotional Indicators and Correlates: Pearson correlation coefficients were calculated between social-emotional indicators and a variety of risk indicators (see table 2) and outcome measures (see table 3). Most of the social-emotional indicators had weak correlations with one or more risk factors, most correlating the most highly with the combined risk index. The strongest

correlations ($r > .3$) of social-emotional indicators with later outcomes are between academic outcomes (8th grade reading and math, high school completion, college attendance) and the following: social-emotional maturity, assertive social skills, peer social skills, frustration tolerance, total problem, total competence scores. Additional moderate correlations ($r > .3$) exist between the following pairs of variables: social-emotional maturity (gr 1-3) & special ed, social-emotional maturity (gr 1-6) & special ed, and acting out behavior & juvenile arrests. See table 2 for correlation values. *Note: the syntax for correlations is in Appendix B.*

CLS Publications: Table 4a shows the social-emotional constructs and variables that have been used in previous CLS publications (full references for these publications listed in table 4b). Constructs previously published include school remedial services, juvenile delinquency, early classroom adjustment, middle childhood competence and problem behaviors, and mental health.

Table 1. Mean Comparisons of Social-Emotional Indicators

<i>Social-Emotional Indicator -Dichotomized Version</i>	Total		Gender		CPC Preschool		School-age Program		Extended Intervention (CPC+School-age)	
	N	Mean/ %yes	Boys	Girls	Any	None	Any	None	Yes	No
Social-Emotional Maturity (gr 1)	1239	19.45	17.93**	20.90	20.12**	18.21	19.88**	18.74	20.73**	18.53
Social-Emotional Maturity (gr 2)	967	19.03	18.08**	19.99	19.41**	18.33	19.38*	18.51	19.85**	18.44
Social-Emotional Maturity (gr 3)	1164	18.95	17.72**	20.11	19.24**	18.38	19.46**	18.19	19.85**	18.29
Social-Emotional Maturity (gr 4)	830	18.94	17.71**	20.14	19.43**	18.06	19.42**	18.21	20.01**	18.20
Social-Emotional Maturity (gr 5)	809	18.69	17.27**	20.03	19.14**	17.93	19.28**	17.98	19.73**	18.08
Social-Emotional Maturity (gr 6)	815	18.89	17.47**	20.26	19.18*	18.31	19.10	18.55	19.32	18.57
Social-Emotional Maturity (grades 1-3)	1429	19.11	17.82**	20.37	19.58**	18.26	19.53**	18.51	20.15**	18.46
-Poor social-emotional maturity (gr 1-3)	1429	16.8%	23.9%**	9.8%	15%*	20%	15.2%	19.1%	12.7%**	19.3%
Social-Emotional Maturity (grades 4-6)	1224	18.72	17.37**	20.04	19.08**	18.07	19.12**	18.17	19.49**	18.23
-Poor social-emotional maturity (gr 4-6)	1224	15.6%	22%**	9.4%	13.8%*	18.9%	13.7%*	18.2%	12.4%*	17.7%
Social-Emotional Maturity (grades 1-6)	1454	18.95	17.61**	20.24	19.38**	18.16	19.42**	18.29	19.94**	18.34
-Poor social-emotional maturity (gr 1-6)	1454	17.1%	24%**	10.5%	14.4%**	22.1%	14.6%**	20.6%	12%**	20.3%
Assertive Social Skills (gr 6 & 7)	1006	15.56	14.96**	16.12	15.79*	15.09	15.70	15.35	16.09**	15.20
-Poor assertive social skills (gr 6 & 7)	1006	18.1%	20.4%	15.9%	16.6%	21%	16.7%	20%	13.9%**	20.9%
Peer Social Skills (gr 6 & 7)	1006	16.72	16.20**	17.21	16.98**	16.22	16.86	16.52	17.26**	16.36
-Poor peer social skills (gr 6 & 7)	1006	15.3%	17.1%	13.6%	13.1%**	19.5%	14.7%	16.2%	13.2%	16.7%
Acting Out Behavior (gr 6 & 7)	1006	12.25	13.82**	10.76	12.00	12.74	12.14	12.42	11.79	12.57
-High acting out behavior (gr 6 & 7)	1006	17.8%	24.2%**	11.7%	16.1%	21%	17.1%	18.8%	15.2%	19.5%
Shy/Anxious Behavior (gr 6 & 7)	1006	9.94	10.24*	9.66	9.90	10.02	9.92	9.97	9.72	10.09
-High shy/anxious behavior (gr 6 & 7)	1006	17.4%	18.1%	16.7%	17.6%	16.9%	17.7%	16.9%	16.7%	17.9%
Frustration Tolerance (gr 6 & 7)	1006	14.37	13.42**	15.28	14.64*	13.86	14.49	14.21	14.86**	14.05
-Poor frustration tolerance (gr 6 & 7)	1006	14.4%	18.1%**	10.9%	13.4%	16.3%	14.3%	14.5%	13.4%	15.1%
Total Problem Scale (gr 6 & 7)	1006	36.83	40.82**	33.03	36.23	38.00	36.42	37.40	35.47*	37.74
-High total problem score (gr 6 & 7)	1006	17.5%	23.2%**	12%	16.4%	19.5%	17.4%	17.6%	15.7%	18.7%
Total Competence Scale (gr 6 & 7)	1006	61.13	57.37**	64.72	62.27**	58.92	61.88	60.08	63.37**	59.64
-Low total competence score (gr 6 & 7)	1006	15.3%	19.8%**	11.1%	13.7%	18.4%	14.8%	16.0%	12.9%	16.9%

<i>Social-Emotional Indicator -Dichotomized Version</i>	Total		Gender		CPC Preschool		School-age Program		Extended Intervention (CPC+School-age)	
	N	Mean/ %yes	Boys	Girls	Any	None	Any	None	Yes	No
Gets Along Well with Others (gr k-6)	1500	3.38	3.37	3.39	3.38	3.39	3.38	3.39	3.38	3.38
Responsibility (gr k-6)	1489	3.20	3.18	3.22	3.22	3.18	3.22	3.18	3.25	3.18
Self-Confident (gr k-6)	1490	3.30	3.28	3.33	3.31	3.29	3.32	3.28	3.35	3.28
Accepts Things Not Going His/Her Way (gr 6&7)	1027	2.94	2.94	2.95	2.89*	3.04	2.89	3.01	2.89	2.97
Trouble-Making Behavior (gr 3-6)	1331	6.10	5.82**	6.36	6.19**	5.91	6.23**	5.90	6.35**	5.92
Depression (# items checked, gr 10)	851	0.85	0.78	0.91	0.79*	0.99	0.81	0.91	0.77*	0.91
-Depression (one or more checked, gr 10)	851	49%	43.9%**	52.9%	46.1%*	55.1%	48.3%	50%	46.4%	50.8%
Negative Peer Affiliation (# items checked, gr 10)	825	0.71	0.66	0.74	0.72	0.70	0.75	0.65	0.74	0.69
-Negative Peer Aff. (one or more checked, gr 10)	825	39%	37.7%	40%	38.8%	39.6%	40.5%	37%	39.5%	38.7%
Positive Peer Affiliation (# items checked, gr 10)	825	3.10	2.88**	3.26	3.14	3.01	3.11	3.08	3.09	3.10
-Positive Peer Aff. (one or more checked, gr 10)	825	92.1%	91.3%	92.8%	92.3%	91.8%	92.4%	91.7%	91.7%	92.4%
Future Optimism (gr 10)	822	19.96	19.61*	20.24	20.12	19.64	20.17	19.69	20.43**	19.64
Optimism (age 22)	1137	16.70	16.31**	17.03	16.81	16.49	16.67	16.74	16.80	16.64
Delinquency (gr 10)	822	27.22	27.17	27.31	27.19	27.34	27.26	27.17	27.34	27.13
Special Ed Placement for EBD (# years, gr 1-12)	1377	0.11	0.21**	0.02	0.11	0.12	0.10	0.12	0.06*	0.15
-Any Special Ed for EBD (gr 1-12)	1377	3.1%	5.8%**	0.6%	3.2%	2.9%	2.7%	3.7%	1.8%*	4.0%
Special Ed Placement (# of years, gr 1-12)	1377	0.93	1.32**	0.55	0.72**	1.32	0.72**	1.22	0.46**	1.23
-Any Special Ed (gr 1-12)	1377	17.4%	24.9%**	10.1%	14.5%**	22.6%	15.3%*	20.3%	11%**	21.5%
Number of Adult Arrests	1418	1.28	2.29**	0.32	1.17*	1.48	1.23	1.35	1.12*	1.38
-Any Adult Arrests	1418	39.6%	62%**	18.1%	37.3%*	43.8%	39.2%	40%	36.4%*	41.5%
Number of Arrests (violent charge)	1418	0.21	0.35**	0.08	0.18*	0.25	0.19	0.23	0.16*	0.23
-Any Violent Arrests	1418	16%	25.7%**	6.8%	14.5%*	18.8%	15.2%	17.1%	12.9%*	17.9%
Number of Arrests (nonviolent charge)	1418	1.07	1.94**	0.24	0.99*	1.23	1.04	1.12	0.96	1.14
-Any Nonviolent Arrests	1418	35.2%	56.7%**	14.6%	33.1%*	39%	35.1%	35.3%	33.1%	36.4%
Number of Juvenile Arrests/Petitions	1406	0.57	1.04**	0.11	0.49*	0.70	0.57	0.56	0.47	0.63
-Any Juvenile Arrests/Petitions	1406	19.6%	32%**	7.3%	17%**	24.2%	19.5%	19.7%	17.4%	20.9%

* = p<.05

** = p<.01

Table 2. Correlations between social-emotional indicators and early risk indicators (0-3 yrs)

	Family Risk (index)	60%+ poverty in school area	Single parent status	Mother less than 18 years	Mother did not complete HS	4+ children in household	TANF/ AFDC	Mother not employed	Eligible for free lunch
Social-emotional maturity grades 1-3	-.134**	-.014	-.031	-.057*	-.135**	-.019	-.095**	-.086**	-.070**
Social-emotional maturity grades 4-6	-.146**	-.024	-.044	-.023	-.131**	-.025	-.108**	-.094**	-.096**
Social-emotional maturity grades 1-6	-.151**	-.012	-.040	-.058*	-.150**	-.028	-.110**	-.093**	-.079**
Assertive social skills (gr 6 & 7)	-.118**	-.020	-.005	.035	-.113**	-.063*	-.078*	-.112**	-.075*
Peer social skills (gr 6 & 7)	-.136**	.056	-.049	.009	-.133**	-.023	-.136**	-.128**	-.085**
Acting out behavior (gr 6 & 7)	.125**	.002	.078*	.027	.112**	-.004	.126**	.061	.054
Shy/anxious behavior (gr 6 & 7)	.120**	.009	.045	-.011	.083**	.010	.115**	.083**	.111**
Frustration tolerance (gr 6 & 7)	-.140**	.049	-.108**	-.029	-.118**	.010	-.146**	-.115**	-.045
Total problem behavior (gr 6 & 7)	.159**	.020	.072*	.019	.128**	.007	.152**	.089**	.098**
Total competence (gr 6 & 7)	-.155**	.026	-.068*	.003	-.140**	-.024	-.143**	-.134**	-.079*
Gets along with peers	-.048	.019	-.019	.000	-.013	.025	-.093**	-.053*	-.037
Responsibility	-.060*	.017	-.013	-.007	-.031	.014	-.091**	-.070**	-.035
Self-confident	-.090**	-.001	.004	.007	-.059*	.001	-.114**	-.094**	-.075**
Accepts things not going his or her way	.054	.031	.029	.015	.045	.053	.021	.029	-.013
Trouble-making behavior (gr 3-6)	-.099**	.021	-.086**	-.018	-.062*	.014	-.080**	-.089**	-.069*
Depression (# items checked, gr 10)	.000	.009	.041	.008	.019	-.025	.011	-.065	.005
Negative peer affiliation (# items checked, gr 10)	.024	-.021	-.008	.003	.031	.056	.000	-.021	.064
Positive peer affiliation (# items checked, gr 10)	-.076*	.027	.000	-.047	-.046	-.028	-.105**	-.027	-.065
Future optimism (gr 10)	-.099**	.018	-.027	-.025	-.090**	-.014	-.099**	-.084*	-.035
Delinquency (gr 10)	.029	-.018	.008	.017	.005	.011	.028	.019	.042

Table 3. Correlations between social-emotional indicators and later outcomes

	8 th grade reading	8 th grade math	HS completion	Any 4-yr college	Depression (2+ items age 22)	Any juvenile arrests	Any adult arrests	Life satisfaction	Special Ed (any)	Special Ed for EBD (any)
Social-emotional maturity grades 1-3	.596**	.644**	.284**	.282**	-.121**	-.200**	-.258**	.145**	-.336**	-.202**
Social-emotional maturity grades 4-6	.518**	.551**	.305**	.331**	-.130**	-.216**	-.292**	.193**	-.269**	-.144**
Social-emotional maturity grades 1-6	.618**	.671**	.324**	.326**	-.132**	-.234**	-.301**	.170**	-.341**	-.206**
Assertive social skills (gr 6 & 7)	.430**	.445**	.207**	.296**	-.058	-.106**	-.125**	.148**	-.183**	-.055
Peer social skills (gr 6 & 7)	.349**	.384**	.256**	.283**	-.112**	-.188**	-.213**	.196**	-.192**	-.118**
Acting out behavior (gr 6 & 7)	-.296**	-.298**	-.268**	-.235**	.069	.302**	.309**	-.155**	.182**	.161**
Shy/anxious behavior (gr 6 & 7)	-.240**	-.299**	-.145**	-.145**	.054	.070*	.105**	-.082*	.129**	.045
Frustration tolerance (gr 6 & 7)	.368**	.395**	.264**	.302**	-.096**	-.236**	-.273**	.177**	-.192**	-.150**
Total problem behavior (gr 6 & 7)	-.428**	-.456**	-.297**	-.289**	.079*	.276**	.309**	-.174**	.230**	.135**
Total competence (gr 6 & 7)	.481**	.509**	.302**	.368**	-.108**	-.228**	-.267**	.211**	-.228**	-.121**
Gets along with peers	.051	.076**	.008	-.010	-.021	-.043	-.003	.033	-.050	-.058*
Responsibility	.079**	.098**	.039	.026	-.054	-.037	-.040	.078**	-.074**	-.041
Self-confident	.106**	.130**	.065*	.031	-.043	-.049	-.014	.083**	-.052	-.059*
Accepts things not going his or her way	-.039	.029	-.073*	.003	-.099**	.021	.044	-.038	.019	-.014
Trouble-making behavior (gr 3-6)	.201**	.180**	.108**	.071*	-.040	-.134**	-.164**	.089**	-.151**	-.117**
Depression (# items checked, gr 10)	.034	.012	-.079*	-.118**	.122**	.031	.002	-.093*	-.044	.045
Negative peer affiliation (# items checked, gr 10)	.016	.005	-.047	-.077*	.044	.096**	.029	-.076*	-.034	.083*
Positive peer affiliation (# items checked, gr 10)	.178**	.150**	.200**	.214**	-.062	-.157**	-.138**	.130**	-.085*	-.143**
Future optimism (gr 10)	.102**	.076*	.229**	.215**	-.096*	-.146**	-.114**	.154**	-.060	-.137**
Delinquency (gr 10)	-.049	-.026	-.032	.067	-.023	-.022	-.024	-.040	-.041	-.015

* = p<.05

** = p<.01

Table 4a. Social-Emotional Constructs from Previous CLS Publications

Construct	Variable Name(s)	Publication(s)
School Remedial Services	spent112	Reynolds, Temple, Robertson, & Mann (2002)
	spent112d	Reynolds, Temple, Robertson, & Mann (2002), Graue, Clements, Reynolds, & Niles (2004)
	spent13	Reynolds (1992), Reynolds & Bezruczko (1993)
	sped1, sped2, sped3, sped4, sped5, sped6, sped7	Reynolds & Temple (1998), Reynolds (1994), Reynolds (1995), Reynolds (1998)
	spent18d	Miedel & Reynolds (1999), Conyers, Reynolds, & Ou (2003), Temple, Reynolds, & Ou (2004)
	spent18	Conyers, Reynolds, & Ou (2003)
	speebd15d	Niles, Reynolds, & Nagasawa (2006)
Juvenile Delinquency	jdadj_d	Reynolds, Temple, Robertson, & Mann (2002), Reynolds, Ou, & Topitzes (2004), Clements, Reynolds, & Hickey (2004)
	jv2more	Reynolds, Temple, Robertson, & Mann (2002), Reynolds, Ou, & Topitzes (2004)
	totjdadj	Reynolds, Temple, Robertson, & Mann (2002), Smokowski, Mann, Reynolds, & Fraser (2004), Reynolds, Ou, & Topitzes (2004)
Early Classroom Adjustment	sematavg	Smokowski, Mann, Reynolds, & Fraser (2004)
	semat1, semat2, semat3, semat4, semat5, semat6	Reynolds (1995), Reynolds, Ou, & Topitzes (2004), Ou (2005), Reynolds (1992), Reynolds & Bezruczko (1993), Reynolds (1994), Reynolds, Chang, & Temple (1998), Reynolds (1998)
	semat13	Reynolds, Mavrogenes, Bezruczko, & Hagemann (1996)
	semat16	Niles, Reynolds, & Nagasawa (2006)
Middle Childhood Competence and Problem Behaviors	frstolav, taskorav, askillav, peerssav, actoutav, shyanxav, learnprobsav	Smokowski, Mann, Reynolds, & Fraser (2004)
	totcomp6	Reynolds (1998), Reynolds & Gill (1994), Niles, Reynolds, & Nagasawa (2006)
	totprob6	Reynolds (1998), Reynolds & Gill (1994), Niles, Reynolds, & Nagasawa (2006)
Mental Health	depress	Smokowski, Mann, Reynolds, & Fraser (2004)

Table 4b. Full References

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Appendix A: Descriptions of Social-Emotional Variables

[Teacher Report]

Social-Emotional Maturity

- semat1** **Variable:** *semat1* is a composite score of children's social-emotional maturity in grade 1 based on the following 6 items from the Year 1 Teacher Survey: "came to my class ready to learn" (T1Q1), "completes work according to instructions" (T1Q3), "complies with classroom rules" (T1Q4), "displays confidence in approaching learning tasks" (T1Q5), "participates in group discussions" (T1Q7), and "works and plays well with others" (T1Q14). Teachers rated children's level of performance for each item on a 5 point scale: 1 = "poor/not at all", 2 = "fair/some", 3 = "satisfactory/average", 4 = "above average", 5 = "excellent/much". The summed score of these items was used as an indicator of children's social-emotional maturity at grade 1. Missing values = -1. **Statistical Properties:** The *semat1* score has a possible range of 6 to 30 and an actual range of 6 to 30. *semat1* scores were obtained for 1,239 children in grade 1. The average teacher report of children's social-emotional maturity in grade 1 was 19.45 (SD = 5.91). The reliability coefficient (Cronbach's alpha) using a pair-wise comparison = .79 (n = 1237).
- semat2** **Variable:** *semat2* is a composite score of children's social-emotional maturity in grade 2 based on the following 6 items from the Year 2 Teacher Survey: "concentrates on work" (T2Q2), "follows directions" (T2Q3), "is self-confident" (T2Q4), "participates in group discussions" (T2Q5), "interacts well with others" (T2Q10), and "takes responsibility for actions" (T2Q12). Teachers rated children's level of performance for each item on a 5 point scale: 1 = "poor/not at all", 2 = "fair/some", 3 = "satisfactory/average", 4 = "above average", 5 = "excellent/much". The summed score of these items was used as an indicator of children's social-emotional maturity at grade 2. Missing values = -1. **Statistical Properties:** The *semat2* score has a possible range of 6 to 30 and an actual range of 6 to 30. *semat2* scores were obtained for 967 children in grade 2. The average teacher report of children's social-emotional maturity in grade 2 was 19.03 (SD = 5.10). The reliability coefficient (Cronbach's alpha) using a pair-wise comparison = .75 (n = 1032).
- semat3** **Variable:** *semat3* is a composite score of children's social-emotional maturity in grade 3 based on the following 6 items from the Year 3 Teacher Survey: "concentrates on work" (T3Q2), "follows directions" (T3Q3), "is self-confident" (T3Q4), "participates in group discussions" (T3Q5), "interacts well with others" (T3Q10), and "takes responsibility for actions" (T3Q12). Teachers rated children's level of performance for each item on a 5 point scale: 1 = "poor/not at all", 2 = "fair/some", 3 = "satisfactory/average", 4 = "above average", 5 = "excellent/much". The summed score of these items was used as an indicator of children's social-emotional maturity at grade 3. Missing values = -1. **Statistical Properties:** The *semat3* score has a possible range of 6 to 30 and an actual range of 6 to 30. *semat3* scores were obtained for 1,164 children in grade 3. The average teacher report of children's social-emotional maturity in grade 3 was 18.95 (SD = 5.35). The reliability coefficient (Cronbach's alpha) using a pair-wise comparison = .88 (n = 1157).
- semat4** **Variable:** *semat4* is a composite score of children's social-emotional maturity in grade 4 based on the following 6 items from the Year 4 Teacher Survey: "concentrates on work" (T4Q2), "follows directions" (T4Q3), "is self-confident" (T4Q4), "participates in group discussions" (T4Q5), "gets along well with others" (T4Q10), and "takes responsibility for actions" (T4Q12). Teachers rated children's level of performance for each item on a 5 point scale: 1 = "poor/not at all", 2 = "fair/some", 3 = "satisfactory/average", 4 = "above average", 5 = "excellent/much". The summed score of these items was used as an indicator of children's social-emotional maturity at grade 4. Missing values = -1. **Statistical Properties:** The *semat4* score has a possible range of 6 to 30 and an actual range of 6 to 30. *semat4* scores were obtained for 830 children in grade 4. The average teacher report of children's social-emotional maturity in grade 4 was 18.93 (SD = 5.38). The reliability coefficient (Cronbach's alpha) using a pair-wise comparison = .89 (n = 827).
- semat5** **Variable:** *semat5* is a composite score of children's social-emotional maturity in grade 5 based on the following 6 items from the Year 5 Teacher Survey: "concentrates on work" (T5Q2), "follows directions" (T5Q3), "is self-confident" (T5Q4), "participates in group discussions" (T5Q6), "gets along well with others" (T5Q9), and "takes responsibility for actions" (T5Q12). Teachers rated children's level of performance for each item on a 5 point scale: 1 = "poor/not at all", 2 = "fair/some", 3 = "satisfactory/average", 4 = "above average", 5 = "excellent/much". The summed score of these items was used as an indicator of children's social-emotional maturity at grade 5. Missing values = -1. **Statistical Properties:** The *semat5* score has a possible range of 6 to 30 and an actual range of 6 to 30. *semat5* scores were obtained for 809 children in grade 5. The average teacher report of children's social-emotional maturity in grade 5 was 18.69 (SD = 5.35). The reliability coefficient (Cronbach's alpha) using a pair-wise comparison = .86 (n = 808).
- semat6** **Variable:** *semat6* is a composite score of children's social-emotional maturity in grade 6 based on the following 6 items from the Year 6 Teacher Survey: "concentrates on work" (T6Q1), "follows directions" (T6Q2), "is self-confident" (T6Q3), "participates in group discussions" (T6Q4), "gets along well with others" (T6Q5), and "takes responsibility for actions" (T6Q6). Teachers rated children's level of performance for each item on a 5 point scale: 1 = "poor/not at all", 2 = "fair/some", 3 = "satisfactory/average", 4 = "above average", 5 = "excellent/much". The summed score of these items was used as an indicator of children's social-emotional maturity at grade 6. Missing values = -1. **Statistical Properties:** The *semat6* score has a possible range of 6 to 30 and an actual range of 6 to 30. *semat6* scores were obtained for 815 children in grade 6. The average teacher report of children's social-emotional maturity in grade 6 was 18.89 (SD = 5.59). The reliability coefficient (Cronbach's alpha) using a pair-wise comparison = .89 (n = 813).
- semat13n** **Variable:** *semat13n* is the mean of *semat* scores for grades 1 through 3 (*semat1*, *semat2*, *semat3* described above). **Statistical Properties:** The *semat13n* score has a possible range of 6 to 30 and an actual range of 7 to 30. Mean = 19.12, SD = 4.83. n = 1429.

Appendix A: Descriptions of Social-Emotional Variables

- semat13n_d* *Semat13n_d* is a dummy coded version of *semat13n*, where 1 = poor social emotional maturity (one standard deviation or more below the mean) and 0 = average to good social emotional maturity. For this sample one standard deviation below the mean is 14.28.
- semat46n* **Variable:** *semat46n* is the mean of *semat* scores for grades 4 through 6 (*semat4*, *semat5*, *semat6* described above). **Statistical Properties:** The *semat46n* score has a possible range of 6 to 30 and an actual range of 6 to 30. Mean = 18.72, SD = 4.89. n = 1224.
- semat46n_d* *Semat46n_d* is a dummy coded version of *semat46n*, where 1 = poor social emotional maturity (one standard deviation or more below the mean) and 0 = average to good social emotional maturity. For this sample one standard deviation below the mean is 13.83.
- semat16n* **Variable:** *semat16n* is the mean of *semat* scores for grades 1 through 6 (*semat1*, *semat2*, *semat3*, *semat4*, *semat5*, *semat6* described above). **Statistical Properties:** *semat16n* has a possible range of 6 to 30 and an actual range of 7 to 30. Mean = 18.95, SD = 4.43. n = 1454.
- semat24u* **Variable:** Six items from the teacher surveys were used to measure children's social-emotional maturity once every year in grades 1 through 6. The *semat24u* variable indicates the number of years for which a child received a *semat* score of 24 or higher. A score of 24 or higher is reflective of high or above average levels of social-emotional maturity. **Statistical Properties:** The *semat24u* score has a potential and actual range of 0 to 6. Mean = .89, SD = 1.28. n = 1531.
- semat12b* **Variable:** Six items from the teacher surveys were used to measure children's social-emotional maturity once every year in grades 1 through 6. The *semat12b* variable indicates the number of years for which a child received a *semat* score of 12 or lower. A score of 12 or lower is reflective of low or below average levels of social-emotional maturity. **Statistical Properties:** The *semat12b* score has a potential and actual range of 0 to 6. Mean = .43, SD = .80. n = 1531.

[all Teacher-Child Rating Scale (TCRS) composite scores: N=1006]

Assertive Social Skills

- askillav* **Variable:** *askillav* is the mean score of *askill6* and *askill7* (assertive social skills in 6th and 7th grade, respectively). Each year's score is the total of teacher ratings on the following 5 items from the TCRS (Teacher Child Rating Scale): defends own views under group pressure (tc6q2 & tc7q2); comfortable as a leader (tc6q6 & tc7q6); participates in class discussions (tc6q10 & tc7q10); expresses ideas willingly (tc6q14 & tc7q14); & questions rules that seem unfair/unclear (tc6q18 & tc7q18). Each item was rated by teachers on the following five-point scale: 1 = "not at all", 2 = "a little", 3 = "moderately well", 4 = "well", and 5 = "very well." **Statistical Properties:** Potential range for *askillav* is 5 to 25; actual range 5 to 25. Mean = 15.5552, SD = 4.35012. The reliability coefficient (Cronbach's alpha) using a pair-wise comparison for grade 6 = .85 (n = 813); grade 7 = .86 (n = 718)
- askill_d* *askill_d* is a dummy-coded version of *askillav*, where 1=poor assertive social skills (one standard deviation or more below the mean) and 0=normal to good assertive social skills. For this sample one SD below the mean is 11.20508.

Peer Social Skills

- peerssav* **Variable:** *peerssav* is the mean score of *peers6* and *peers7* (peer social skills in 6th and 7th grade, respectively). Each year's score is the total of teacher ratings on the following 5 items from the TCRS: has many friends (tc6q4 & tc7q4); is friendly towards peers (tc6q8 & tc7q8); makes friends easily (tc6q12 & tc7q12); classmates wish to sit near this child (tc6q16 & tc7q16); & well liked by classmates (tc6q20 & tc7q20). Each item was rated by teachers on the following five-point scale: 1 = "not at all", 2 = "a little", 3 = "moderately well", 4 = "well", and 5 = "very well." **Statistical Properties:** Potential range for *peerssav* is 5 to 25; actual range 5 to 25. Mean = 16.7187, SD = 4.27114. The reliability coefficient (Cronbach's alpha) using a pair-wise comparison for grade 6 = .88 (n = 813); grade 7 = .92 (n = 718)
- peerss_d* *peerss_d* is a dummy-coded version of *peerssav*, where 1=poor peer social skills (one standard deviation or more below the mean) and 0=normal to good peer social skills. For this sample one SD below the mean is 12.44756.

Acting Out Behavior

- actoutav* **Variable:** *actoutav* is the mean score of acting out behavior in 6th and 7th grade. Each year's score is the total of teacher ratings on the following 6 items from the TCRS: disruptive in class (tp6q1 & tp7q1); fidgety, difficulty sitting still (tp6q4 & tp7q4); disturbs others while they are working (tp6q7 & tp7q7); constantly seeks attention (tp6q10 & tp7q10); overly aggressive to peers (fights) (tp6q13 & tp7q13); & deviant, obstinate, stubborn (tp6q16 & tp7q16). Each item was rated by teachers on the following five-point scale: 1 = "not problem", 2 = "mild", 3 = "moderate", 4 = "serious", and 5 = "very serious problem." **Statistical Properties:** Potential range for *actoutav* is 6 to 30; actual range 6 to 30. Mean = 12.2545, SD = 6.20691. The reliability coefficient (Cronbach's alpha) using a pair-wise comparison for grade 6 = .94 (n = 813); grade 7 = .95 (n = 718)
- actout_d* *actout_d* is a dummy-coded version of *actoutav*, where 1=high/problematic acting out behavior (one standard deviation or more above the mean) and 0=normal to low acting out behavior. For this sample one SD above the mean is 18.46141.

Appendix A: Descriptions of Social-Emotional Variables

Shy/Anxious Behavior

shyanxav **Variable:** *shyanxav* is the mean score of shy/anxious behavior in 6th and 7th grade, respectively. Each year's score is the total of teacher ratings on the following 6 items from the TCRS: withdrawn (tp6q2 & tp7q2); shy, timid (tp6q5 & tp7q5); anxious, worried (tp6q8 & tp7q8); nervous, frightened, tense (tp6q11 & tp7q11); does not express feelings (tp6q14 & tp7q14); & unhappy, sad (tp6q17 & tp7q17). Each item was rated by teachers on the following five-point scale: 1 = "not problem", 2 = "mild", 3 = "moderate", 4 = "serious", and 5 = "very serious problem." **Statistical Properties:** Potential range for *shyanxav* is 6 to 30; actual range 6 to 28. Mean = 9.9414, SD = 3.95862. The reliability coefficient (Cronbach's alpha) using a pair-wise comparison for grade 6 = .81 (n = 812); grade 7 = .79 (n = 718)

shyanx_d *shyanx_d* is a dummy-coded version of *shyanxav*, where 1=high/problematic shy/anxious behavior (one standard deviation or more above the mean) and 0=normal to low shy/anxious behavior. For this sample one SD above the mean is 13.90002.

Frustration Tolerance

frstolav **Variable:** *frstolav* is the mean score of frustration tolerance in 6th and 7th grade. Each year's score is the total of teacher ratings on the following 5 items from the TCRS: accepts things not going his/her way (tc6q1 & tc7q1); ignores teasing (tc6q5 & tc7q5); accepts imposed limits (tc6q9 & tc7q9); copes well with failure (tc6q13 & tc7q13); & tolerates frustration (tc6q17 & tc7q17). Each item was rated by teachers on the following five-point scale: 1 = "not at all", 2 = "a little", 3 = "moderately well", 4 = "well", and 5 = "very well." **Statistical Properties:** Potential range for *frstolav* is 5 to 25; actual range 5 to 25. Mean = 14.3713, SD = 4.56622. The reliability coefficient (Cronbach's alpha) using a pair-wise comparison for grade 6 = .89 (n = 813); grade 7 = .91 (n = 718)

frstol_d *frstol_d* is a dummy-coded version of *frstolav*, where 1=poor/low frustration tolerance (one standard deviation or more below the mean) and 0=normal to good frustration tolerance. For this sample one SD below the mean is 9.80518.

Task Orientation

taskorav **Variable:** *taskorav* is the mean student rating of task orientation in 6th and 7th grade. Each year's score is the total of teacher ratings on the following 5 items from the TCRS: completes work (tc6q3, tc7q3), well organized (tc6q7, tc7q7), functions well even with distractions (tc6q11, tc7q11), works well without supervision (tc6q15, tc7q15), a self-starter (tc6q19, tc7q19). Each item was rated by teachers on the following five-point scale: 1 = "not at all", 2 = "a little", 3 = "moderately well", 4 = "well", and 5 = "very well." Missing values were coded -1. **Statistical Properties:** Potential range for *taskorav* is 5 to 25; actual range 5 to 25. Mean = 14.38, SD = 4.80. The reliability coefficient (Cronbach's alpha) using a pair-wise comparison for grade 6 = .91 (n = 813); grade 7 = .93 (n = 718)

taskorav_d *taskorav_d* is a dummy coded version of *taskorav*, where 1 = poor/low task orientation (one standard deviation or more below the mean) and 0 = normal to good task orientation. For this sample one standard deviation below the mean is 9.58.

Learning/Behavior Problems

learnprobsav **Variable:** *learnprobsav* is the mean score of problem behavior/learning problems in 6th and 7th grade, respectively. Each year's score is the total of teacher ratings on the following 6 items from the TCRS: underachieving (not working to ability) (tp6q3 & tp7q3); poor work habits (tp6q6 & tp7q6); poor concentration, limited attention span (tp6q9 & tp7q9); difficulty following directions (tp6q12 & tp7q12); poorly motivated to achieve (tp6q15 & tp7q15); & learning academic subjects (tp6q18 & tp7q18). Each item was rated by teachers on the following five-point scale: 1 = "not problem", 2 = "mild", 3 = "moderate", 4 = "serious", and 5 = "very serious problem." **Statistical Properties:** Potential range for *learnprobsav* is 6 to 30; actual range 3 to 30. Mean = 14.801, SD = 6.82. The reliability coefficient (Cronbach's alpha) using a pair-wise comparison for grade 6 = .93 (n = 813); grade 7 = .95 (n = 718)

learnprobsav_d *learnprobsav_d* is a dummy-coded version of *learnprobsav*, where 1=high/problematic learning problems (one standard deviation or more above the mean) and 0=normal to low learning problems. For this sample one SD above the mean is 21.62.

Problem Behavior

toprobav **Variable:** *toprobav* is the mean of the total problem behavior subscale of the TCRS in grades 6 and 7. The problem behavior subscale is the combined total of scores on acting out, shy/anxious, and problem behavior/learning problems. See *actoutav* and *shyanxav* for descriptions of those scales. The learning/behavior problems scale consists of the following 6 items from the TCRS: underachieving (not working to ability) (tp6q3 & tp7q3); poor work habits (tp6q6 & tp7q6); poor concentration, limited attention span (tp6q9 & tp7q9); difficulty following directions (tp6q12 & tp7q12); poorly motivated to achieve (tp6q15 & tp7q15); & learning academic subjects (tp6q18 & tp7q18). Each item was rated by teachers on the following five-point scale: 1 = "not problem", 2 = "mild", 3 = "moderate", 4 = "serious", and 5 = "very serious problem." **Statistical Properties:** Potential range for *toprobav* is 18 to 90; actual range 18 to 84. Mean = 36.8310, SD = 14.22603. The reliability coefficient (Cronbach's alpha) using a pair-wise comparison for grade 6 = .93 (n = 813); grade 7 = .94 (n = 718)

toprob_d *toprob_d* is a dummy-coded version of *toprobav*, where 1=high problematic behavior (one standard deviation or more above the mean) and 0=normal to low problematic behavior. For this sample one SD above the mean is 51.05703.

Appendix A: Descriptions of Social-Emotional Variables

Competence

- Variable:** *totcompav* is the mean of the total competence subscale of the TCRS in grades 6 and 7 (*totcomp6* & *totcomp7*, respectively). The competence subscale is the combined total of scores on assertive social skills, peer social skills, task orientation, and frustration tolerance. See *askillav*, *peerssav*, *taskorav*, and *fristolav* for descriptions of those scales.
- Statistical Properties:** Potential range for *totcompav* is 20 to 100; actual range 20 to 100. Mean = 61.1297, SD = 15.70852. The reliability coefficient (Cronbach's alpha) using a pair-wise comparison for grade 6 = .94 (n = 813); grade 7 = .95 (n = 718)
- totcomp_d* *totcomp_d* is a dummy-coded version of *totcompav*, where 1=low competence (one standard deviation or more below the mean) and 0=normal to high competence. For this sample one SD below the mean is 45.42118.

Gets Along With Peers

- Variable:** *wellothk6* is the mean of the following items from teacher surveys in elementary school: works well with others (*tkq14*), works and plays well with others (*t1q14*), interacts well with others (*t2q10*), and gets along well with others (*t3q10*, *t4q10*, *t5q9*, *t6q5*). *tkq14* was originally rated on a seven-point scale ranging from 1=never to 7=always. All other variables were rated on the following five-point scale: 1 = "poor/not at all", 2 = "fair/some", 3 = "satisfactory/average", 4 = "above average", 5 = excellent/much". Because of this discrepancy between scale ranges, *tkq14* scores were first converted to 5-point scale scores, then averaged in with the others. **Statistical Properties:** Range for *wellothk6* is 1 to 5 (N=1500). Mean = 3.3815, SD = 0.76727.

Responsibility

- Variable:** *responsk6* is the mean of the following items from teacher surveys in elementary school: accepts responsibility (*tkq13*) and takes responsibility for actions (*t2q12*, *t3q12*, *t4q12*, *t5q12*, *t6q6*). *tkq13* was originally rated on a seven-point scale ranging from 1=never to 7=always. All other variables were rated on the following five-point scale: 1 = "poor/not at all", 2 = "fair/some", 3 = "satisfactory/average", 4 = "above average", 5 = excellent/much". Because of this discrepancy between scale ranges, *tkq13* scores were first converted to 5-point scale scores, then averaged in with the others. **Statistical Properties:** Range for *responsk6* is 1 to 5 (N=1489). Mean = 3.2037, SD = 0.82408.

Self-Confident

- Variable:** *selfconk6* is the mean of the following items from teacher surveys in elementary school: shows self-confidence (*tkq25*) and is self-confident (*t2q4*, *t3q4*, *t4q4*, *t5q4*, *t6q3*). *tkq25* was originally rated on a seven-point scale ranging from 1=never to 7=always. All other variables were rated on the following five-point scale: 1 = "poor/not at all", 2 = "fair/some", 3 = "satisfactory/average", 4 = "above average", 5 = excellent/much". Because of this discrepancy between scale ranges, *tkq25* scores were first converted to 5-point scale scores, then averaged in with the others. **Statistical Properties:** Range for *selfconk6* is 1 to 5 (N=1490). Mean = 3.3041, SD = 0.75724.

Accepts things not going his/her way

- Variable:** *accept67* is the mean score of the 6th and 7th grade scores on the TCRS item: "accepts things not going his or her way" (*tc6q1*, *tc7q1*). This item was rated on the following five-point scale: 1 = "not at all", 2 = "a little", 3 = "moderately well", 4 = "well", and 5 = "very well." **Statistical Properties:** Range for *accept67* is 1 to 5 (N=1027). Mean = 2.9426, SD = 1.10625.

[Self-report]

Trouble-making Behavior

- Variable:** *troub3* is a composite score of children's responses to the following 4 items from the Grade 3 Student Survey: "I get in trouble at school" (*s3q12*), "I fight at schools" (*s3q21*), "I get in trouble at home" (*s3q28*), and "I follow class rules" (*s3q37*). Each item assess the respondents' perceived trouble making behavior on a 3-point scale (1 = "a lot" or "often", 2 = "some" or "sometimes", and 3 = "not much" or "not often"). Question number 37 ("I follow class rules") was reverse coded. Missing values were coded as -1. **Statistical Properties:** The *troub3* score has a possible range of 4 to 12 and an actual range of 4 to 12. *troub3* scores were obtained for 1,113 children in grade 3. The average self-report of trouble making behavior in grade 3 was 9.56 (SD = 1.88). The reliability coefficient (Cronbach's alpha) using a pair-wise comparison = .54 (n = 1133).
- Variable:** *troub4* is a composite score of children's responses to the following two items from the Grade 4 student survey: "I get in trouble at school" (*s4q12*) and "I get in trouble at home" (*s4q26*). Each item assess the respondents' perceived trouble making behavior on a 3-point scale (1 = "a lot" or "often", 2 = "some" or "sometimes", and 3 = "not much" or "not often"). Missing values were coded as -1. **Statistical Properties:** The *troub4* score has a possible range of 2 to 6 and an actual range of 2 to 6. *troub4* scores were obtained for 795 children in grade 4. The average self-report of trouble making behavior in grade 4 was 4.77 (SD = 1.10). The reliability coefficient (Cronbach's alpha) using a pair-wise comparison = .41 (n = 856).
- Variable:** *troub5* is a composite score of children's responses to the following two items from the Grade 5 student survey: "I get in trouble at school" (*s5q6*) and "I get in trouble at home" (*s5q20*). Each item assess the respondents' perceived trouble making behavior on a 4-point scale (1 = "strongly agree", 2 = "agree", 3 = "disagree", and 4 = "strongly disagree"). Missing values were coded as -1. **Statistical Properties:** The *troub5* score has a possible range of 2 to 8 and an actual range of 2 to 8. *troub5* scores were obtained for 793 children in grade 5. The average self-report of trouble making behavior in grade 5 was 5.12 (SD = 1.67). The reliability coefficient (Cronbach's alpha) using a pair-wise comparison = .34 (n = 729).

Appendix A: Descriptions of Social-Emotional Variables

- troub6** **Variable:** *troub6* indicates children's responses to the following item from the Grade 5 student survey: "I get in trouble at school" (s6q3) and "I get in trouble at home" (s5q20). This item assesses the respondents' perceived trouble making behavior on a 4-point scale (1 = "strongly agree", 2 = "agree", 3 = "disagree", and 4 = "strongly disagree"). Missing values were coded as -1. **Statistical Properties:** The *troub6* score has a possible range of 1 to 4 and an actual range of 1 to 4. *troub6* scores were obtained for 776 children in grade 6. The average self-report of trouble making behavior in grade 6 was 2.71 (SD = .98). The reliability coefficient could not be calculated as this scale only includes one item.
- trou3_4n** **Variable:** *trou3_4n* is the mean student rating of trouble making behavior in grades 3 and 4. This variable was created by taking the mean of responses to the following items from the Grade 3 and Grade 4 student surveys: "I get in trouble at school" (s3q12, s4q12), "I fight at school" (s3q21), "I get in trouble at home" (s3q28, s4q26), and "I follow class rules" (s3q37). Each item assesses the respondents' perceived trouble making behavior on a 3-point scale (1 = "a lot" or "often", 2 = "some" or "sometimes", and 3 = "not much" or "not often"). Item s3q37 ("I follow class rules") was reverse coded. Missing values were coded as -1. **Statistical Properties:** The *trou3_4n* score has a possible range of 1 to 12 and an actual range of 2 to 12. Mean = 7.75, SD = 2.03. n = 1221.
- trou5_6n** **Variable:** *trou5_6n* is the mean student rating of trouble making behavior in grades 5 and 6. This variable was created by taking the mean of responses to the following two items from the Grade 5 and Grade 6 student surveys: "I get in trouble at school" (s5q6, s6q3) and "I get in trouble at home" (s5q20). Each item assesses the respondents' perceived trouble making behavior on a 4-point scale (1 = "strongly agree", 2 = "agree", 3 = "disagree", and 4 = "strongly disagree"). Missing values were coded as -1. **Statistical Properties:** The *trou5_6n* score has possible and actual range of 1 to 8. Mean = 3.95, SD = 1.54. n = 1053.
- trou3_6n** **Variable:** *trou3_6n* is the mean student rating of trouble making behavior in grades 3 through 6. This variable was created by taking the mean of responses to the following items from the student surveys: "I get in trouble at school" (s3q12, s4q12, s5q6, s6q3), "I fight at school" (s3q21), "I get in trouble at home" (s3q28, s4q26, s5q20), and "I follow class rules" (s3q37). At grades 3 and 4, each item assesses the respondents' perceived trouble making behavior on a 3-point scale (1 = "a lot" or "often", 2 = "some" or "sometimes", and 3 = "not much" or "not often"). Item s3q37 ("I follow class rules") was reverse coded. At grades 5 and 6 each item assesses the respondents' perceived trouble making on a 4-point scale (1 = "strongly agree", 2 = "agree", 3 = "disagree", and 4 = "strongly disagree"). Missing values were coded as -1. **Statistical Properties:** The *trou3_6n* score has possible and actual range of 1 to 12. Mean = 6.09, SD = 1.54. n = 1331.

Depression

- depress** **Variable:** *depress* is a composite score of children's depression ratings in 10th grade based on the following three questions from the 1995 Student Follow-Up Survey: "During the past year, I have: 'felt really down about life in general' (s10q47d), 'felt seriously depressed' (s10q47f), and 'felt hopeless about the future'" (s10q47j). Children checked yes to those statements they felt to be true (yes = 1; no = 2). The sum of yes responses was used as an indicator of depression. **Statistical Properties:** The *depress* score has a potential and an actual range of 3 to 6. Depression indicators were obtained from 851 children in grade 10. The average self-reported depression score was 3.10 (SD = 1.59). The reliability coefficient (Cronbach's alpha) using a pair-wise comparison = .63 (n = 849).
- depress_d** **Variable:** *depress_d* is a dummy variable used to identify those children with higher levels of self-reported depression based on the 10th grade survey. 1 = yes to one or more items; 0 = none of the depression items were endorsed. **Statistical Properties:** The *depress_d* score is a dichotomous variable. Data was obtained from 851 children in grade 10; 417 of these children endorsed 1 or more of the 3 depression items.

Negative Peer Affiliation

- negpeer** **Variable:** *negpeer* is a composite score of children's negative peer affiliation in 10th grade based on the following three questions from the 1995 Student Follow-Up Survey: "Most of my friends: 'skip school a lot' (s10q50d2), 'drink alcohol' (s10q50i2), and 'have experimented with drugs'" (s10q50j2). Children checked yes to those statements they felt to be true (yes = 1; no = 2). The sum of yes responses was used as an indicator of negative peer affiliation. **Statistical Properties:** The *negpeer* score has a potential and an actual range of 3 to 6. Peer data was obtained from 825 children in grade 10. Mean = .71 (SD = .35). The reliability coefficient (Cronbach's alpha) using a pair-wise comparison = .74 (n = 823).
- negpeer_d** **Variable:** *negpeer_d* is a dummy variable used to identify those children with higher levels of self-reported negative peer affiliation based on the 10th grade survey. 1 = yes to one or more items; 0 = none of the negative peer affiliation items were endorsed. **Statistical Properties:** The *negpeer_d* score is a dichotomous variable. Data was obtained from 825 children in grade 10; 322 of these children endorsed 1 or more of the 3 negative peer affiliation items.

Positive Peer Affiliation

- pospeer** **Variable:** *pospeer* is a composite score of children's positive peer affiliation in 10th grade based on the following five questions from the 1995 Student Follow-Up Survey: "Most of my friends: 'plan to graduate from high school' (s10q50a2), 'think I am a good student' (s10q50b2), 'plan to go to college' (s10q50f2), 'are good students' (s10q50g2), and 'are active in school clubs or organizations'" (s10q50h2). Children checked yes to those statements they felt to be true (yes = 1; no = 0). The sum of yes responses was used as an indicator of positive peer affiliation. **Statistical Properties:** The *pospeer* score has a potential and an actual range of 1 to 5. Peer data was obtained from 825 children in grade 10. Mean = 3.10 (SD = 1.59). The reliability coefficient (Cronbach's alpha) using a pair-wise comparison = .72 (n = 823).

Appendix A: Descriptions of Social-Emotional Variables

pospeer_d **Variable:** *pospeer_d* is a dummy variable used to identify those children with higher levels of self-reported positive peer affiliation based on the 10th grade survey. 1 = yes to one or more items; 0 = none of the positive peer affiliation items were endorsed. **Statistical Properties:** The *pospeer_d* score is a dichotomous variable. Data was obtained from 825 children in grade 10; 760 of these children endorsed 1 or more of the 3 positive peer affiliation items.

Future Optimism

optim2 **Variable:** *optim2* is a composite score of children's future optimism in 10th grade based on the following six questions from the 1995 Student Follow-Up Survey: "What are the chances that you" 'will graduate from high school' (s10q68ar), 'will go to college' (s10q68br), 'will graduate from college' (s10q68cr), 'will have a job that pays well' (s10q68dr), 'will have a happy family life' (s10q68er), and 'will stay in good health most of the time'" (s10q68fr). Children rated each item on a 4 point scale (1 = "excellent", 2 = "good", 3 = "fair", 4 = "poor"). Items were recoded such that 1 = "poor", 2 = "fair", 3 = "good", and 4 = "excellent". The sum of the recoded items was used as an indicator of respondents' future optimism. **Statistical Properties:** The *optim2* score has a potential range of 6 to 24 and an actual range of 2 to 24 (one respondent answered only one item). Future optimism data was obtained from 822 children in grade 10. Mean = 19.96, SD = 3.66. The reliability coefficient (Cronbach's alpha) using a pair-wise comparison = .78 (n = 822).

optimism **Variable:** *optimism* is a composite score of participants future optimism during adulthood based on the following five questions from the Age 22-24 Adult Survey: "What are the chances that you" 'will graduate from college' (s22q41r), 'will have a job that pays well' (s22q42r), 'will have a job that you enjoy doing' (s22q43r), and 'will have a happy family life' (s22q44r), and 'will own your own home'" (s22q45r). Participants rated each item on a 4 point scale (1 = "excellent", 2 = "good", 3 = "fair", 4 = "poor"). Items were recoded such that 1 = "poor", 2 = "fair", 3 = "good", and 4 = "excellent". The sum of the recoded items was used as an indicator of respondents' future optimism. **Statistical Properties:** The *optim2* score has a potential and an actual range of 5 to 20. Future optimism data was obtained from 1137 participants at age 22. Mean = 16.70, SD = 3.23.

Delinquency

delin2 **Variable:** *delin2* is a composite score of children's self-reported delinquency behavior in 10th grade based on the following eleven questions from the 1995 Student Follow-Up Survey: "I feel guilty after I do something I shouldn't do" (s10q56r), "I hang around kids who get in trouble" (s10q57), "I lie" (s10q58), "I cheat" (s10q59), "I would rather be with older kids than with kids my own age" (s10q60), "I run away from home" (s10q61), "I steal from places other than home" (s10q62), "I swear or use dirty language" (s10q63), "I cut classes or skip school" (s10q64), "I use alcohol or drugs for non-medical purposes" (s10q65), "I get in many fights" (s10q66). Each item was rated on the following scale (note that q56 was reverse-coded before being added to this scale): 1 = "very true or often true", 2 = "somewhat or sometimes true", 3 = "not true". The sum of the items was used as an indicator of respondents' delinquency. **Statistical Properties:** The *delin2* score has a possible range of 11 to 33 and an actual range of 1 to 33. *delin2* scores were obtained for 822 children in grade 10. The average self-reported delinquency behavior in grade 10 was 27.22 (SD = 4.02). The reliability coefficient (Cronbach's alpha) using a pair-wise comparison = .76 (n = 822).

[Other/Administrative Report]

Special Education Placement

[All special education variables: N=1539]

specebd8 **Variable:** Number of years in special education placement for emotional or behavior disorder, grades 1 & 3-8. **Statistical Properties:** Range 0 to 5. Mean = 0.0819, SD = 0.53468.

spebd8_d If ever in special education placement for emotional or behavior disorder, grades 1 & 3-8 (0=no, 1=yes).

spebd112 **Variable:** Number of years in special education placement for emotional or behavior disorder, grades 1 & 3-12. **Statistical Properties:** Range 0 to 9. Mean = 0.1040, SD = 0.70174.

spebddd If ever in special education placement for emotional or behavior disorder, grades 1 & 3-12 (0=no, 1=yes).

spent18 **Variable:** Number of years in special education placement, grades 1 & 3-8. **Statistical Properties:** Range 0 to 8. Mean = 0.5478, SD = 1.51525.

spent18d If ever in special education placement, grades 1 & 3-8 (0=no, 1=yes).

spent112 **Variable:** Number of years in special education placement, grades 1 & 3-12. **Statistical Properties:** Range 0 to 12. Mean = 0.8408, SD = 2.26897.

spet112d If ever in special education placement, grades 1 & 3-12 (0=no, 1=yes).

[**Note:** Additional variables for a variety of special education classifications are included in the "social-emotional variables" SPSS file. However, most of the classifications have very low incidence rates, so they are not otherwise considered in this report. In addition, grade-by-grade special education variables can be found in the "school remedial services" SPSS file.]

Appendix A: Descriptions of Social-Emotional Variables

Arrests

numar_a	Variable: Total number of adult arrests, according to administrative data sources. Statistical Properties: Range is 0 to 27. Mean = 1.1806, SD = 2.31715.
anyar_a	Any adult arrests, for any charge/crime, according to administrative data sources (0=no, 1=yes).
twoar_a	Two or more arrests, for any charge/crime, according to administrative data sources (0=no, 1=yes).
tvio1_a	Variable: Total number of adult arrests for violent charge (admin data). Statistical Properties: Range is 0 to 4. Mean = 0.1917, SD = 0.52036.
viold_a	Any adult arrests for violent charge (admin data) (0=no, 1=yes).
twoviol_a	Two or more adult arrests for violent charge (admin data) (0=no, 1=yes).
tnonvar_a	Variable: Total number of adult arrests for nonviolent charge (drug, property, or other) (admin data). Statistical Properties: Range is 0 to 27. Mean = 0.989, SD = 2.0795.
nonvd_a	Any adult arrests for nonviolent charge (drug, property, or other) (admin data) (0=no, 1=yes).
twononv_a	Two or more adult arrests for nonviolent charge (drug, property, or other) (admin data) (0=no, 1=yes).
totjdadj	Variable: Total number of del & adj juvenile petitions. Statistical Properties: Range is 0 to 15. Mean = 0.52, SD = 1.575.
jdadj_d	Any juvenile petitions (0=no, 1=yes).
ju2more	Two or more juvenile petitions filed (0=no, 1=yes).

Note: The following sources were used in the formation of some of the social-emotional indicators

Achenbach, T. (1994). *Child Behavior Checklist*. VT: University of Vermont.

Lotyczewski, B., Spinell, A., Guare, J., & Rohrbeck, C. (1986). The Teacher-Child Rating Scale: A brief objective measure of elementary children's school problem behaviors and competencies. *School Psychology Review, 15*, 393-409.

Appendix B: SPSS Syntax

The following SPSS syntax was used for calculations in this internal report. All variables can be found in the “social-emotional variables” datafile.

Mean Comparisons (non-dichotomous variables):

ONEWAY

```
semat1 semat2 semat3 semat4 semat5 semat6 semat13n semat46n semat16n  
askillav peerssav actoutav shyanxav frstolav topobav tocompav wellothk6  
responsk6 selfconk6 accept67 trou3_6n depress negpeer pospeer optim2  
optimism delin2 spebd112 spent112 numar_a tviol_a tnonvar_a totjdadj BY  
sexk2n
```

```
/MISSING ANALYSIS .
```

ONEWAY

```
semat1 semat2 semat3 semat4 semat5 semat6 semat13n semat46n semat16n  
askillav peerssav actoutav shyanxav frstolav topobav tocompav wellothk6  
responsk6 selfconk6 accept67 trou3_6n depress negpeer pospeer optim2  
optimism delin2 spebd112 spent112 numar_a tviol_a tnonvar_a totjdadj BY  
anyprek
```

```
/MISSING ANALYSIS .
```

ONEWAY

```
semat1 semat2 semat3 semat4 semat5 semat6 semat13n semat46n semat16n  
askillav peerssav actoutav shyanxav frstolav topobav tocompav wellothk6  
responsk6 selfconk6 accept67 trou3_6n depress negpeer pospeer optim2  
optimism delin2 spebd112 spent112 numar_a tviol_a tnonvar_a totjdadj BY  
anyfol
```

```
/MISSING ANALYSIS .
```

ONEWAY

```
semat1 semat2 semat3 semat4 semat5 semat6 semat13n semat46n semat16n  
askillav peerssav actoutav shyanxav frstolav topobav tocompav wellothk6  
responsk6 selfconk6 accept67 trou3_6n depress negpeer pospeer optim2  
optimism delin2 spebd112 spent112 numar_a tviol_a tnonvar_a totjdadj BY  
extgroup
```

```
/MISSING ANALYSIS .
```

Mean Comparisons (dichotomous variables):

CROSSTABS

```
/TABLES=semat13n_d semat46n_d semat16n_d askill_d peerss_d actout_d  
shyanx_d frstol_d topob_d tocomp_d depress_d negpeer_d pospeer_d spetebdd  
spet112d anyar_a viold_a nonvd_a jdadj_d BY sexk2n anyprek anyfol extgroup
```

```
/FORMAT= AVALUE TABLES
```

```
/STATISTIC=CHISQ
```

```
/CELLS= COUNT COLUMN
```

```
/COUNT ROUND CELL .
```

Correlations:

CORRELATIONS

```
/VARIABLES=semat13n semat46n semat16n askillav peerssav actoutav shyanxav  
frstolav topobav tocompav wellothk6 responsk6 selfconk6 accept67 trou3_6n  
depress negpeer pospeer optim2 delin2 L8rsk0i inc60 sp03i mage03i mnhs03i  
nch03di TF03i mnemp03i free03i
```

```
/PRINT=TWOTAIL NOSIG
```

```
/MISSING=PAIRWISE .
```

CORRELATIONS

```
/VARIABLES=semat13n semat46n semat16n askillav peerssav actoutav shyanxav  
frstolav topobav tocompav wellothk6 responsk6 selfconk6 accept67 trou3_6n  
depress negpeer pospeer optim2 delin2 ssread8 ssmath8 hscm804r col4804u  
depscl2d jdadj_d anyar_a s22q40r spet112d spetebdd
```

```
/PRINT=TWOTAIL NOSIG
```

```
/MISSING=PAIRWISE .
```