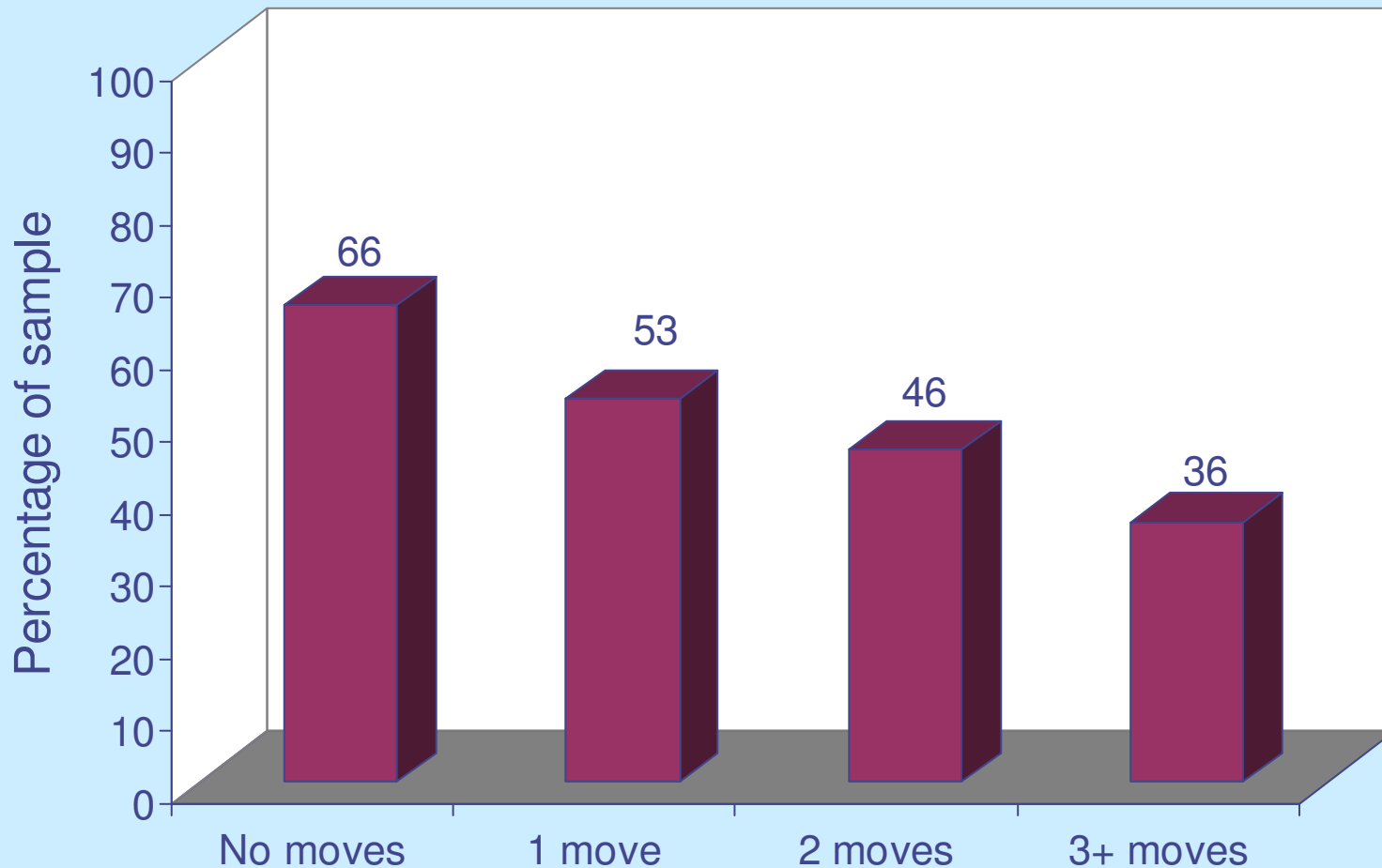


School Mobility and Educational Success: A Research Synthesis and Evidence on Prevention

Arthur J. Reynolds, Chin-Chih Chen, and Janette Herbers
University of Minnesota

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Percent of 4th Graders at Basic or Above on NAEP Reading Test, 2000



Number of Moves and Reading in 2 Studies

Model	Baltimore	Chicago
No adjust.	-13.5	-2.48
Full model	-5.62	-1.34
% reduction	58%	54%
SD full model	-0.11	-0.07
Grade	5	7
N; BSS, CLS	427	1,087

Presentation

1. Meta-analysis of research since 1990
2. Focus on school dropout
3. School reform intervention example
4. Next steps

Why Synthesis?

Examine consistency across studies

Increase generalizability

Address fragmentation of literature

Growth in research

Span of K-12 not examined

Meta-Analysis

16 studies identified 1990-2008

Measured school moves, K-high school

Reading, math, or school dropout

Measured pre-mobility achievement

Selection Results

26 studies excluded primarily due to achievement criterion

Other outcome domains not assessed

Dropout not focus of previous analysis

Study Descriptives

5 of national samples (NELS, NLSAH)

9 of mixture of areas (Chicago, Seattle, Baltimore, Texas, New York City)

2 of Head Start graduates in Indiana

12 on achievement, 5 dropout

Response rates from 62-90%+

Mobility Measures

Mixtures of reports: 9 school records, 7 parent or students

4 compared elementary vs. high school

4 examined school vs. home moves

13 cumulative measures over grades

10 non-normative moves (Nn)

5 had 3+ year interval between last move and outcome

Covariates and Models

N of covariates: 3 to 29; achiev, family, child, and school factors

8 studies 3 of 4 categories of achiev, parent ed, SES, & family structure;
4 studies included all.

10 included potential mediators in assessing mobility effects

2 studies investigated mediators

Outcome Measures

Iowa Tests of Basic Skills

California Achievement Tests

Woodcock-Johnson Achievement

Student reports of dropout or not
earning diploma, grade 8-14

School records of not completing high
school supplemented by youth

Predictors of Mobility

Most Consistent

Prior achievement/GPA

Parent education and SES

Family structure

Others

Parent perceptions of mobility impact

School-level moves

Residential moves

School characteristics

Effect Sizes

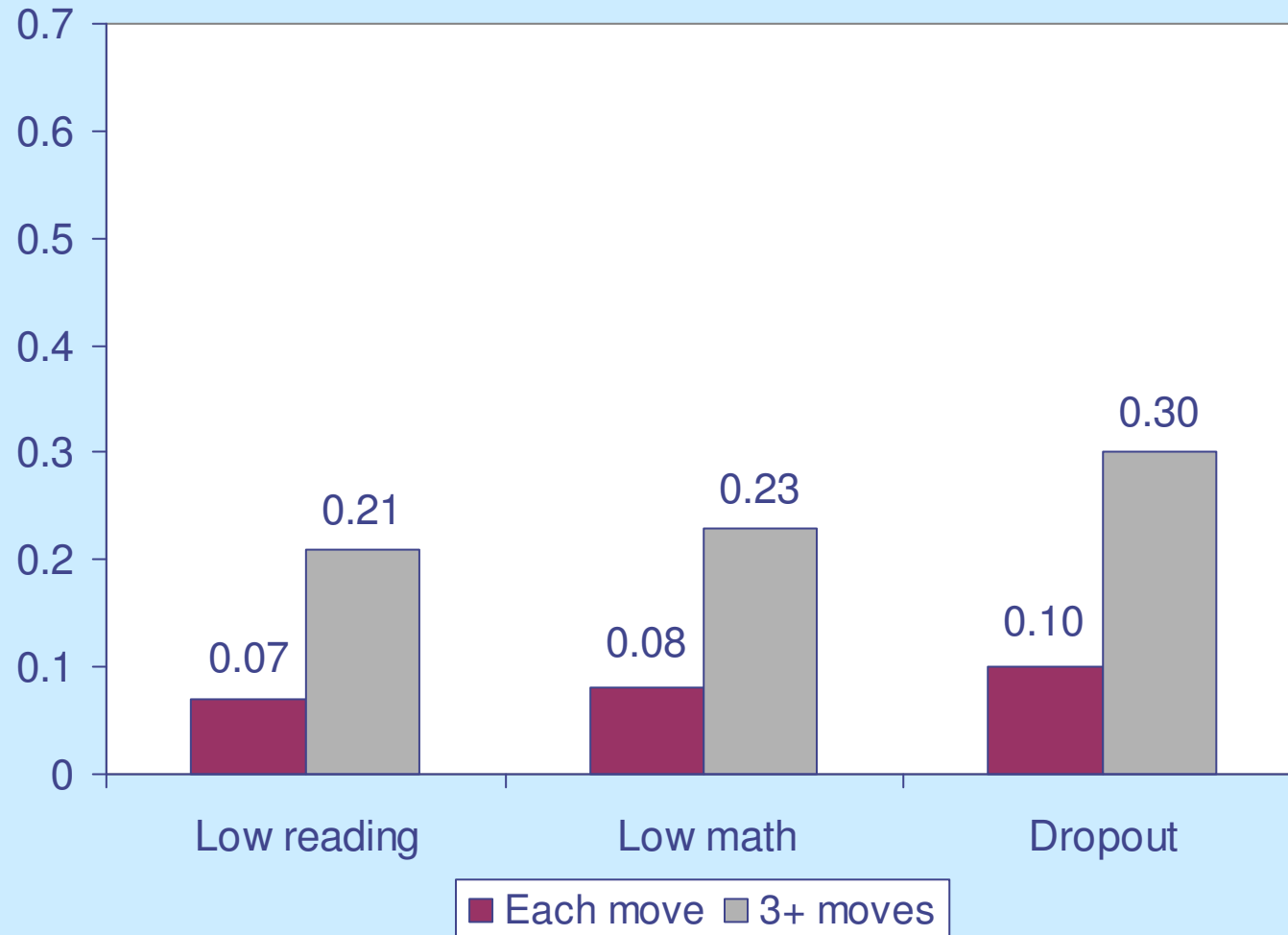
SD units (d)

Inverse variance weight applied

Dropout studies converted to d via
probit or tetrachoric method

Variability in effect sizes assessed

Adjusted Mean Effect Sizes (SD units)



Reading Impacts by Grade

Group	No	weight	Weight
Elementary(19)	-.47		-.35
Middle (5)	-.16		-.18
High School (13)	-.23		-.23

Effect Sizes for Dropout (5 studies)

Indicator	Each move	Overall
Mean	-0.10	-0.28
Median	-0.10	-0.30
Pct. points	-2 to 3%	-7 to 8%

Key Attributes of Dropout Studies

<i>Sty</i>	<i>Gr.</i>	<i>Metric</i>	<i>M/%</i>	<i>Type</i>	<i>Covar.</i>	<i>Out.</i>	<i>d</i>
SHB	7-8	Any, P	2.6%	H+S	15	10	.31
AEH	1	Cnt, Sc	1.1	S, Nn	15(2)	14	.12
OR	4-8	Thr, Sc	46%	S, Nn	29(7)	14	.28

Key Attributes of Dropout Studies

<i>Sty</i>	<i>Gr.</i>	<i>Metric</i>	<i>M/%</i>	<i>Type</i>	<i>Covar.</i>	<i>Out.</i>	<i>d</i>
SS	8-10	Any, S	29%	H, Nn	20(2)	10	.16
		Any, S		S, Nn	20(2)	10	.22
	1-8	Cnt, P	1.1	S, Nn	20(5)	10	.08
RL	8-12	Thr, S	24%	S, Nn	25	14	.39
	1-8	Cnt, P	1.1	S, Nn	12(1)	14	.04

Dropout & Frequent School Moves

<i>Sty</i>	<i>Gr.</i>	<i>Type</i>	<i>3 moves</i>	<i>Mobil</i>	<i>Stable</i>
AEH	1	Nn	.36	55%	40%
OR	4-8	Nn	.62	71%	47%
SS	1-8	Nn	.24	10.3%	7%
RL	1-8	Nn	.12	15%	12%
	8-12	Nn	.54	26%	12%

Note. Median = .36. Mean = .38

Moving by Context

Evidence that intra-district moves in urban areas have more detrimental effects

Moves to high quality schools linked to higher achievement

Child & family subgroups not assessed

Guidelines for Causal Inference

Level of evidence

Temporality	Med
Size or magnitude	Low/Med
Gradient (Dose-response)	High
Specificity	Low
Consistency	High
Coherence	Low

Limitations

Selection of relatively high-quality studies

Unverified assumption of linear effects

Wide variability of mobility measurement

Bias associated with attrition or over-control

Very limited assessment of mediators

Conclusions

1. Frequent mobility most consistently associated with lower school success.
2. Estimated impacts are largest for school dropout.
3. Precision of mobility measurement varies substantially across studies.
4. Evidence of conservative bias present.
5. Scant assessment of differences by child and family subgroups.

Conclusions

6. Heterogeneity of effects by type, reason, grade, and frequency, contexts and their interactions are not well established.
7. Attention to nonlinear and threshold effects was very limited.
8. Research on mediators and mechanisms of effects just beginning.
9. Longer-term effects need further investigation.

CLS Examples on Mobility

1. Robustness testing
2. Indirect effects
3. Child-Parent Center PK-3 evidence
4. Mobility contribution to economic returns

CLS Sample Description

Cohort of 1,539 Kindergartners born in 1979-1980 who attended publicly funded early childhood programs for children at risk in Chicago public schools.

Data collected annually from many sources with 90% or higher recovery into adulthood. Mobility measured starting in K from school records and supplemented with parent/student reports.

Threshold Impacts for School Moves and Related Factors

Grade 8 reading

1 move K-8	-1.9
2 moves K-8	-2.7
3+ moves K-8	-5.7*
Magnet school	6.4*
Private school	2.8
Out of Chicago	-0.6
High family risk	-5.7*

Note. * $p < .05$

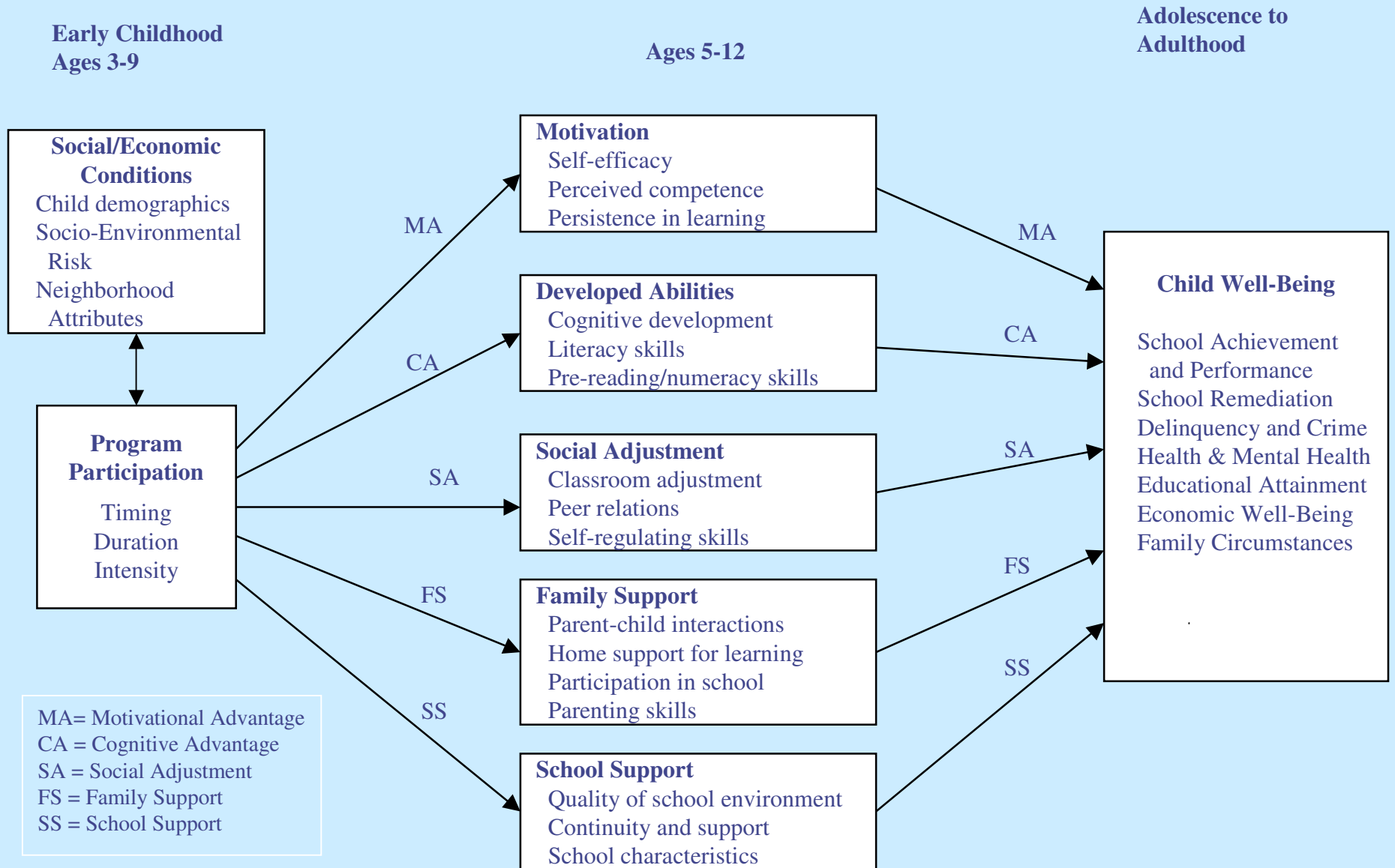
Threshold Impacts for School Moves on Educational Attainment

*Highest grade-
Age 25*

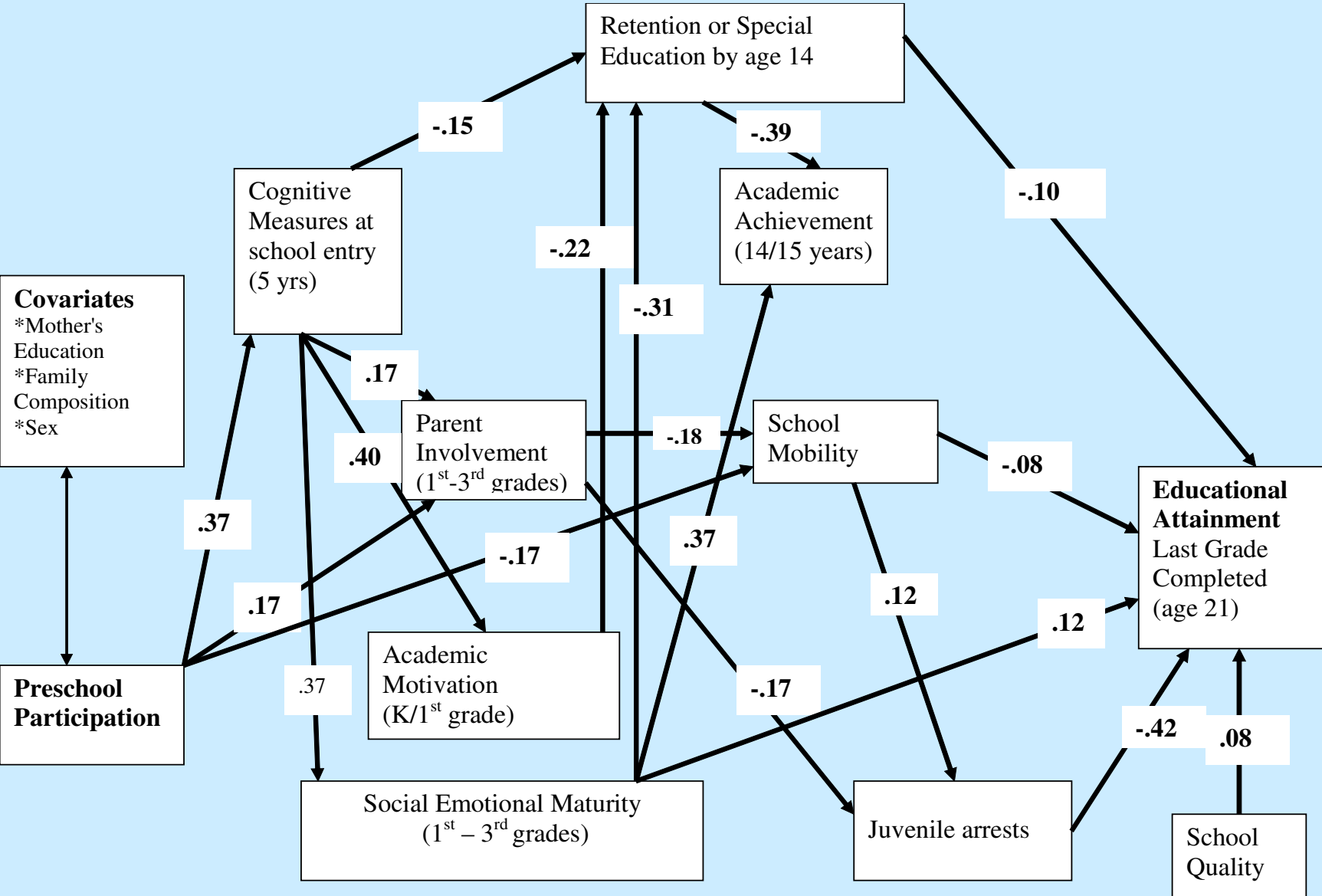
1 move K-12	-0.08
2 moves K-12	-0.17
3 moves K-12	-0.25*
4+ moves K-12	-0.32*
Residential moves	-0.10

Note. *p < .05

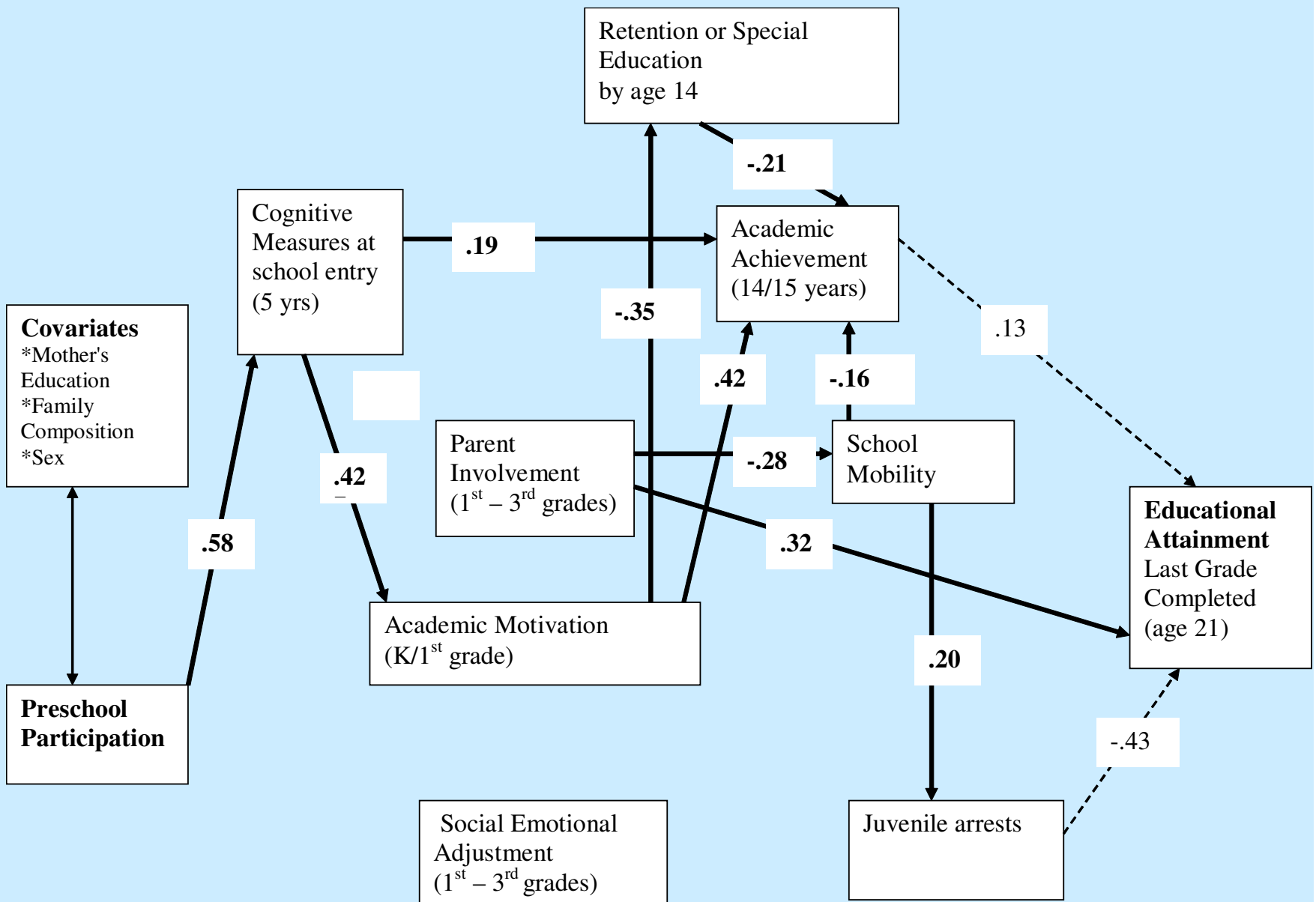
Paths to Well-Being Affected by Early Childhood Experiences



Child-Parent Centers



Perry Preschool Study



PK-3 Education Programs

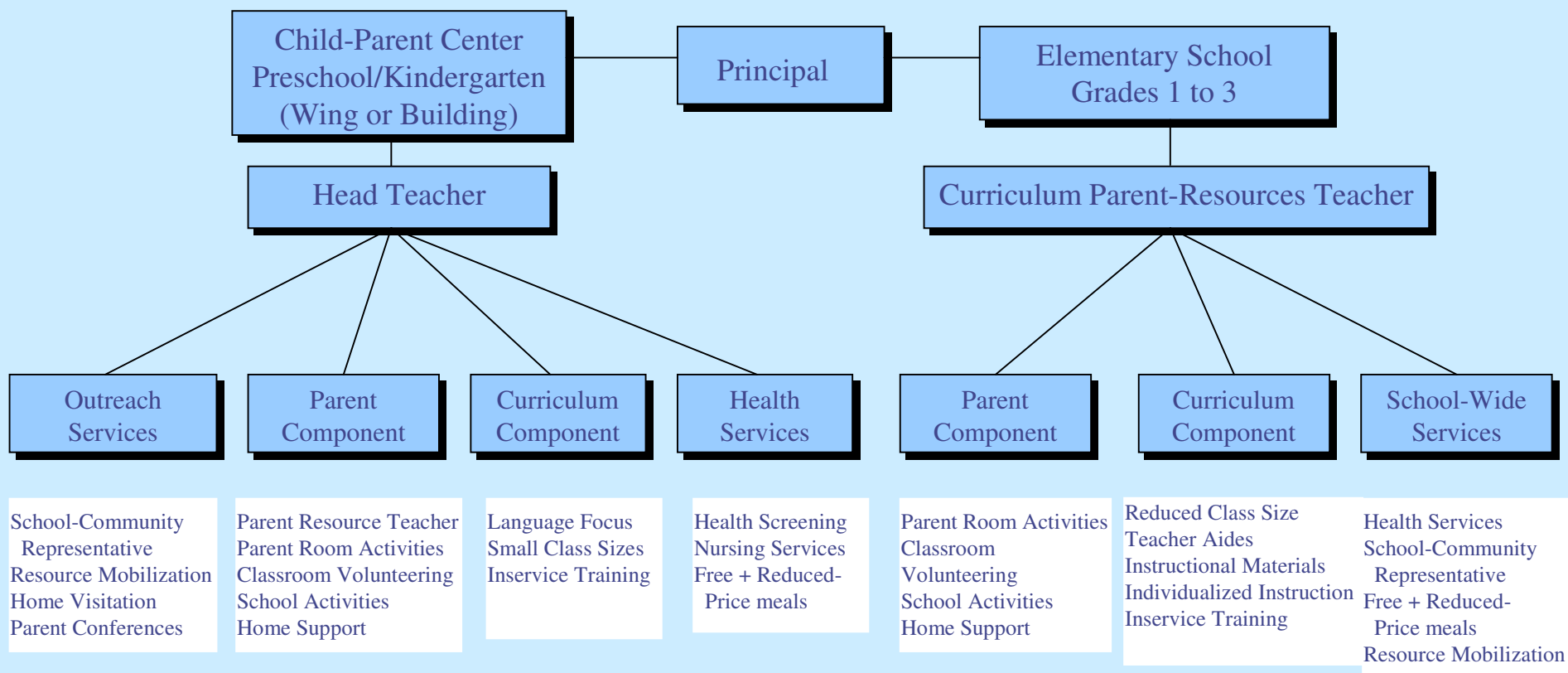
Programs

Planned interventions and services beginning during any of the first 5 years of life and continue up to third grade

Practices

Elements of PK-3 programs such as preschool, full-day kindergarten, class sizes, curriculum alignment, parent involvement.

Child-Parent Centers



Age 3

To

Age 9

CPC Impacts on School Moves

Prog. Group	2+ moves grade 4-8	3+ moves grade 4-12
Extended	-13.8%	-9.9%
School-age	-5.8%	-6.7%
Preschool	-9.3%	-3.9%

Note. Marginal effects from probit regression. See Table 9 and Appendix E for model information.

Mediational Contribution of Mobility to Age-26 CPC Returns

	NPV	B/C ratio
Preschool	\$84,556	10.57
School age	\$11,706	3.97
Extended	\$9,397	8.35
Mobility preschool contribution	\$10,524	1.19

Note. Mobility link exclusive to educational attainment and crime benefits. See Table 10. Values are 2008 dollars

Research Directions

1. Measure U. S. school moves annually.
2. Assess linear versus threshold effects.
3. Assess child and family subgroups.
4. Examine move type, reasons, and frequency within and across ages.
5. Examine processes & mediators.
6. Fully assess indirect and context effects.
7. Improve evidence on programs & policies.