

## **Invest Early Early Childhood Initiative**

### **Year three evaluation summary**

#### ***Introduction***

Wilder Research, in conjunction with the Invest Early leadership team and staff, is conducting a longitudinal and cost-benefit evaluation, documenting and assessing implementation of Invest Early and outcomes for the service system, families, and children.

#### **Invest Early expected outcomes and returns on investment**

In the short term, Invest Early aims to improve children's school readiness by improving the system of early childhood screening, care, and education; by strengthening and empowering families, and by promoting healthy child development.

Invest Early believes that these improvements will ultimately save taxpayers' money by reducing the number of children needing special education services, by cutting the number of children repeating kindergarten or first grade, and by reducing out-of-home placements for children.

The big returns on investment are expected to accrue as Invest Early children become teenagers and adults and, relative to a comparison group of their peers who did not participate in Invest Early programs, achieve higher graduation rates and employment earnings, have better mental and chemical health, and have lower rates of juvenile delinquency, crime, and imprisonment.

#### ***Early childhood screenings***

Overall, children are beginning to be screened significantly earlier than before Invest Early, with improvements in all four school districts. In 2007-2008, about 40 percent of early childhood screenings

#### **HIGHLIGHTS**

Invest Early is an effective program in preparing low-income students for school success when delivered in sufficient quantity.

- Over the past three years, the percentage of children demonstrating overall proficiency or progress towards proficiency at the end of each program year is trending up.
- Regular attendance in the year prior to kindergarten (attending at least 66% of the scheduled classes) is associated with kindergarten readiness.
- Two years of Invest Early narrows the proficiency gap for low-income students relative to their higher-income peers.

were conducted before age 4, compared with about 26 percent prior to Invest Early.

#### ***Profile of Invest Early participants***

In the third year, 346 children age 5 and younger in 267 families participated in Invest Early, up from 258 children in year one and 333 children in year two. Of the children served in year 3, 25 percent were age 2 or younger, 19 percent age 3, and 56 percent age 4 or 5.

Invest Early children live in households with a median income of \$21,000 per year, with 35 percent living in single-parent households.

Most parents have at least a high school diploma, with mothers more likely than fathers to have post-secondary schooling (58% vs. 49%). Forty-one percent of parents are working, with fathers more likely than mothers to be working full time (57% vs. 19%).

*continued*

## **Risk factors**

In addition to low income, similar to the last two years, the most common risk factor for participants is experiencing a family stressor in the past year, such as a death in the family, divorce, or unemployment (55%). Other common risk factors cited: No opportunity for a child to socialize with peers (37%) and single-parent household (31%). In addition, about 26 percent of the children have a history or have shown evidence of delays reaching developmental milestones.

## **Risk factors by age of child**

Families with children under age 3 had, on average, five risk factors, more than families with children age 3 (average of 3 risk factors) or age 4 or 5 (average of 2 risk factors).

In addition, the types of risks varied by the child's age. For example, families with children under age 3 are more likely to have family stress; a history of chemical, sexual, or psychological abuse or neglect; medical concerns and chronic illness; and a history of high risk pregnancies or births.

## ***Parent feedback***

Parents were asked to rate their experience and satisfaction with the Invest Early program and staff. Overall, parents responded more positively than last year.

In terms of the program, similar to last year, 97 percent say that they are satisfied with the education their child received; 98 percent say the services they received met their expectations, and 99 percent would recommend the program to others.

In terms of the staff, about 90 percent or more of the parents say that the staff know a lot about children and how to teach them; communicate with the parents in a way that they understand; respect the parent as an individual; give parents useful suggestions, recommendations, and advice; are sensitive to their family and cultural issues; and are able to connect parents with other community services or resources.

In terms of their child's development, 95 to 97 percent of the parents say their child has made progress in

developing language skills and social skills needed for schools.

In terms of their own parenting skills, parents were slightly less positive overall and more often neutral, and a bit less positive than last year, but still more positive than two years ago. For example, 78 percent say staff helped them identify their strengths as a parent; 84 percent say they better understand their child's needs and development (down from 86%); 82 percent say they understand what their child needs to succeed in school more now (down from 86%); and 78 percent say involvement in the program helped them to improve their parenting skills (down from 84%).

## ***Outcomes for children***

### **Growth and development during program participation**

For the purpose of measuring developmental status and growth, Invest Early staff used the Ounce Scale to assess 0 to 2 year olds and the Work Sampling System to assess 3 to 5 year olds. The assessments cover five domains: personal and social development, language and literacy, mathematical thinking, the arts, and physical development and health. Each domain is measured with a set of indicators. Children's performance on each indicator is rated as: "not yet," "in process," or "proficient."

**0 to 2 year olds.** Based on data for 69 children age 2 and younger, after participating in Invest Early, 33 percent remained proficient in their overall development and 16 percent improved to proficient, compared with 25 percent last year. The percent scored as proficient in their overall development stayed the same at 49 percent, whereas last year saw an increase from 31 percent to 43 percent. Thirty-one percent were unchanged developmentally below the level of proficiency, compared to 39 percent last year; and 19 percent had more developmental needs identified.

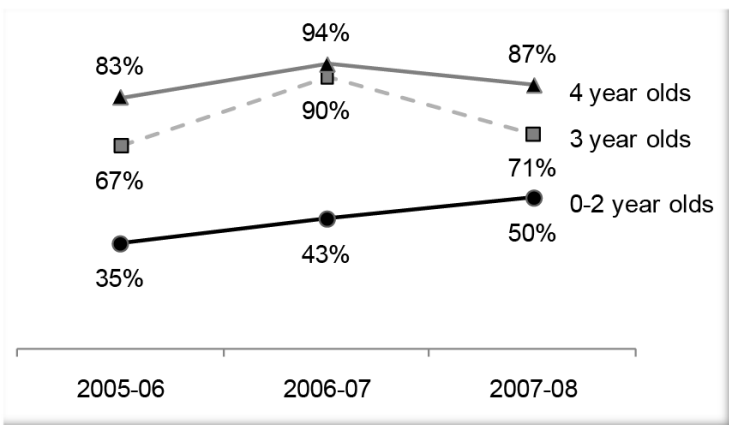
**3 year olds.** After participating in Invest Early, 29 percent of the 3 year olds showed proficiency in their overall development (the domains combined), with 20 percent improving to proficient, compared with 33 percent last year. Another 42 percent improved

their overall development but had not yet achieved proficiency.

**4 and 5 year olds.** After participating in Invest Early, 77 percent of the 4 and 5 year olds showed proficiency in their overall development (the domains combined), with 33 percent improving to proficient, compared with 34 percent last year. Another 14 percent improved their overall development but had not yet achieved proficiency.

The figure below shows the percentage of each age group demonstrating overall proficiency or progress towards proficiency over the last three program years. In general, the percentages are trending up, one indicator of program effectiveness. The 4 and 5 year olds have shown the highest rates of progress or proficiency over the past 3 years.

#### PROGRESS TOWARD PROFICIENCY OR PROFICIENT BY END OF YEAR – 2005-2008



#### Home learning environment improvements during program participation

Invest Early staff members visited the homes of participating children and talked with parents about the benefits of providing an educational learning environment at home. Based on their observations and discussions, staff rated participants' home learning environment in terms of the amount of access children have to learning materials and how frequently parents engage in learning activities with their children. Ratings were conducted at the beginning and end of the program year to determine if improvements occurred over time.

The home learning environments of Invest Early families improved significantly on almost all of the items rated. Notable improvements include greater encouragement of early literacy and numeracy and greater emphasis on positive behavior guidance, such as praising good behavior and teaching verbal manners.

#### Kindergarten readiness assessment

Invest Early is using the developmental checklist, Minnesota Work Sampling System Kindergarten Entry Developmental Checklist®2, developed by the Minnesota Department of Education to assess kindergarten readiness. The checklist is completed by kindergarten teachers during the first couple months after kindergarten entry on five domains: personal and social development, language and literacy, mathematical thinking, the arts, and physical development and health. Each domain is measured with a set of indicators. Students' performance on each indicator is rated as: "not yet," "in process," or "proficient."

#### Invest Early kindergarten class of 2008-09

The scores for Invest Early children this year were higher in the "not yet" category with the largest "not yet" percentage in the personal and social development domain at 11 percent. The biggest gap between them and the higher-income classmates was 8 percentage points in the personal and social development and arts domains, slightly higher than last year's gap of 6 percentage points in the personal and social development domain.

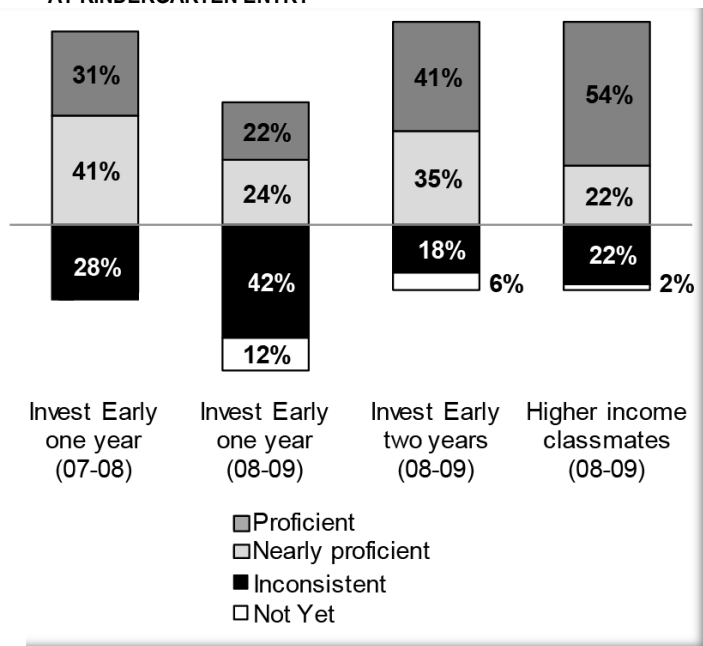
The overall kindergarten readiness scores for Invest Early students are similar to the first year with 63 percent of the Invest Early children demonstrating school readiness skills and knowledge fairly consistently (30%) or proficiently (33%), down from 79 percent last year fairly consistent (40%) or proficient (39%).

In addition, after two years of Invest Early, 76 percent of this year's entering kindergarten class demonstrates school readiness skills and knowledge fairly consistently (35%) or proficiently (41%), higher than students this year (46%) with one year of Invest Early and equal to their higher-income peers (76%), although the Invest

Early group has a lower overall proficiency rate than the higher-income group (41% vs. 54%) and a larger gap than last year (13 percentage points vs. 9).

### Kindergarten readiness\*

#### TWO YEARS OF INVEST EARLY NARROWS THE PROFICIENCY GAP AT KINDERGARTEN ENTRY



*\*Note: Demonstration of skills or knowledge represented by performance in all domains combined at kindergarten entry, 2008, Itasca County, using Work Sampling domain mean scores to calculate a single mean score and defining the lower half of the "in process" scores as "inconsistent" and the upper half as "nearly proficient." Includes: from cohort 2, 32 students with one year of Invest Early; from cohort 3, 41 students with one year and 51 with two years of Invest Early; and 170 students from families with higher-incomes, defined as not eligible for free or reduced lunch (pegged at 130% to 185% of poverty).*

### Factors associated with kindergarten readiness

While the proficiency rate is lower this year than for the Invest Early kindergarten cohort last year, the overall trend is up. Year-to-year variations in results rather than linear progress are to be expected due to variations in cohort profiles.

To explain the results for this year, Wilder Research statistically analyzed Invest Early students' overall Work Sampling scores in relation to various factors thought to influence kindergarten readiness, including age, gender, race, parental education, number of risk factors, home learning environment, family stress, and program attendance.

This year, four factors were statistically associated with greater school readiness, compared with two factors last year. Students with a fewer number of risk factors, girls, those whose mothers had higher levels of education, and those with better home learning environments tended to have greater school readiness.

In addition, low-income Invest Early students who attended 161 days or more (67% of the possible 240 days) were statistically more likely to achieve an overall level of proficiency (2.5 or above). However, less than 10 percent of low-income Invest Early students attended Invest Early for 161 days or more in the year before kindergarten.

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### For more information

This summary presents highlights of the *Invest Early Childhood Initiative, year 3 evaluation*. For more information about this report, contact Richard Chase at Wilder Research, 651-280-2706.

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