Introduction

Research has shown that children considered “at risk” benefit more from quality early education and care than their peers. The Office of Child Development and Early Learning (OCDEL) is committed to using data to inform policies and practices that serve the best interests of Pennsylvania’s young children, their families, and their communities. The following report compiles information on the number of children served and funding levels for early childhood programs supported by state investments. Further, the report includes an analysis of educational and family risk factors and identified counties most likely to benefit from early childhood investments based on those risk factors. Through the examination of county-level early childhood programming and the evaluation of salient educational and family risk factors, this data should be used to: 1) track progress in reaching all children, 2) help communities better understand their early childhood programming needs, particularly in counties where there are high risks, and 3) inform future decisions regarding early care and education investments.

Methodology

All data is provided in the Excel spreadsheet titled “ECE_Analysis_January_2007” which is available on the Pennsylvania Key website at www.pakeys.org.

The data was compiled in four stages aimed at: 1) Gathering relevant information about state-funded early childhood program usage by county, 2) Selecting education and family risk factors and gathering information on number or percentage of children in various risk categories by county, 3) Developing an Average Risk Level (ARL) to identify those counties with the greatest risks and therefore need for early childhood investments, and 4) Combining the ARL information with the state-funded early childhood program usage information to identify county usage by risk. Descriptions of the four stages of data collection are provided below as well as where to find the data in the “ECE_Analysis_January_2007” spreadsheet.

I. Program reach and funding data was collected and compiled for existing state-administered early childhood education programs for children served under 5 years. Programs included:
   a. Pre-k Counts Pilot Sites (Tab 5),
   b. Keystone STARS (Tab 6),
   c. Head Start Supplemental Assistance Grants (Tab 7),
   d. Accountability Block Grants (Tabs 8 and 9),
   e. Community Engagement Groups (Tab 2),
   f. Title I funding for pre-k through 2nd grade (Tab 2), and
   g. Child Care Subsidy (Tab 14).
II. Education and family risk indicators were identified and county-level data was collected on each indicator. Additionally, community readiness data was collected to provide an overview of the progress made in each county in terms of pre-k enrollment, full-day kindergarten participation, and class size reduction (Tab 10). The seven education and family risk indicators chosen for inclusion in the risk analysis model included (Tab 11 and Tab 13):

a. **Rate of children under age 5 living in low-income families** (2000 US Census defines “low income” as less than 200% of poverty) - Children living in poverty are more likely to have poor nutrition, chronic health problems, and be less prepared for and have more difficulty in school.

b. **% of families with related children under 5 years living below poverty level** (2000 US Census defines “poverty” as below 100% of poverty) – Potential efforts to support early childhood and school readiness may include outreach to families in poverty. Thus, we included a family measure of poverty in addition to the actual child rates to identify counties that had high numbers of families living in poverty.

c. **% of Single mother-headed families with children under 5 years living below poverty level** (2000 US Census) – Research shows that children living with both biological parents are less likely to exhibit behavior problems, and children living with married parents are less likely to experience economic hardship (Golden 2005). Women who are single parents, as well as those who cohabit with their children’s other parent, tend to have lower educational attainment, less income, and higher rates of child abuse and domestic violence than married women (Whitehead and Popenoe, 2004).

d. **% of students enrolled in school living in TANF households** – This measure was included to identify counties that have high rates of use of government assistance. Long-term outcomes of quality early childhood programs demonstrate reduced use of welfare during adulthood.

e. **Rate of births to mothers with less than a high school degree** (per 100 births) - Children who live with parents with a low education level are less likely to receive cognitive stimulation and high quality child care during crucial development periods and are more likely to have diminished reading skills.

f. **PSSA: % below proficient math 3rd grade** – Early childhood investments should demonstrate improved academic outcomes.

g. **PSSA: % below proficient reading 3rd grade** – Same as above.

III. Counties were ranked by status on the various risk indicators and broken into quartiles to determine risk levels of low, moderate-low, moderate-high, and high risk. Scores of 1 (low) through 4 (high) were assigned for each indicator and then tallied and averaged to determine an overall “Average Risk Level,” or ARL, for each county (Tab 12 and Tab 13).

IV. Once all program and indicator data was compiled, the results were analyzed in conjunction with county risk level to determine the extent to which early childhood programming and funding has been targeted to those counties with the greatest need, or more precisely, with the highest ARL (Tab 1 and Tab 2). Using these comparisons, future recommendations for additional investments can be determined.
Findings

- **Early Childhood Program Usage** – On average, state-funded early childhood programs (NOT including subsidy) are reaching 34% of children under 5 years statewide (Tab 4), ranging from 16% to 62% on a county basis (Tab 1). Program reach is greatest on average in the moderate-high risk counties (38.45%). Of all the state investments, most children are being reached through the Keystone STARS program, which averages service to 21% of children 0 – 5 years. However, only an average of 2.6% of the children under 5 is served in the highest quality STAR facilities (STAR 3 and STAR 4 sites in Tab 6).

There were nine (9) counties that served over 50% of their children under 5 in state-funded early childhood programs (Carbon, Centre, Columbia, Dauphin, Monroe, Montour, Somerset, Sullivan, and Susquehanna). With the exceptions of Dauphin (urban) and Centre (urban mix), all were either rural or rural-mix counties. Additionally, all of the counties were either of moderate-low risk or moderate-high risk. This suggests that additional efforts are needed in high risk counties to engage more children in quality early learning programs.

- **Early Childhood Program Funding** (FY 05-06) – On average, children served in state-funded early childhood programs (NOT including subsidy) are funded at the rate of $950 per child (Tab 4). Generally, funding has been targeted at counties with the greatest risk. Thirteen of the 16 high risk communities are receiving funding above the statewide average per child spending whereas all of the low risk communities are receiving funding below the statewide average.

Nine of the 10 highest spending per child counties were either of high risk (Bradford, Clinton, Fayette, Greene, Jefferson, Lawrence, and McKean) or moderate-high risk (Clarion and Indiana). Cameron was the only moderate-low risk county that was one of the 10 highest spending per child counties. All of these counties were classified as rural or rural-mix.

Meanwhile, eight (8) of the 10 lowest spending per child counties were of low risk (Bucks, Chester, Cumberland, Montgomery) or moderate-low risk (Centre, Monroe, Sullivan, and Union). Two counties were of moderate-high risk – Carbon and Northampton. Six of these counties were urban or urban-mix while four were rural or rural-mix.

- **Pre K Counts Pilot Sites** were established at 28 school districts in 21 different counties in FY 05-06. Overall, 6,009 children were reached through the pilot programs with the greatest number of students served in Philadelphia (1403), Allegheny (617), Dauphin (545), Lackawanna (500), and Luzerne (490) counties. All of these counties are classified as urban and received a moderate-high to high average risk level score. Pre-K

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1 Discrepancies in some numbers indicated in the worksheets and reported in the narrative are due to calculation differences. Overall state averages reported in the narrative are based on actual data (e.g., Tab 4) rather than calculations based on calculations. Averages reported for low, moderate-low, moderate-high, and high risk levels use multiple calculations so are less reliable (e.g., Tab 1).
Counts Pilot sites were present in 4 of the 16 high risk counties and 12 of the 33 moderate-high risk counties in the state.

Bedford County’s Pre K Counts programs reached the greatest percentage of children under five in the county at 5.19% while the lowest percentage was .39% in Westmoreland County. Despite having the first and second highest raw numbers of children served, Philadelphia and Allegheny counties only reached 1.43% and .87% of children under five respectively. Accounting for current and future pilot sites, it is estimated that Pre-K Counts will reach 10,187 students in 2006-07.

- **Keystone STARS** (as of May 25, 2006) was the state-funded early childhood initiative that was reaching the greatest number of young children (average was 21.1% of children). However, analysis of children served in STAR 3 and STAR 4 sites, which are known to have the kind of quality that research relates to positive child outcomes, showed that only an average of 2.6% of children are served in these high quality programs (see Tab 6).

Generally, Keystone STARS was serving greater percentages of children on average in moderate-risk counties and moderate-low risk counties compared to high risk counties. There were 14 counties that served greater than a quarter of children under 5 in Keystone STARS programs. Eight (8) of these counties were moderate-high risk; four (4) were moderate-low risk; one was low risk; and one was high risk. Further, only four (4) of the 16 high risk counties had average Keystone STARS participation that exceeded the state average whereas three (3) of the four (4) low risk counties had higher Keystone STARS average participation than the state rate. These figures, combined with community readiness data (Tab 10), show the average availability of high quality child care at 1.3% in high risk counties compared to 4.2% in low risk counties and indicate a need to enhance child care facilities and possibly implement incentives for further participation in Keystone STARS within these high risk areas.

As of May 2006,² there were 4,203 child care facilities within the Keystone STARS system, covering all counties and reaching an estimated 158,161 children in the Commonwealth. Overall 47% of regulated child care facilities were participating in Keystone STARS (68% of centers, 49% of group homes, and 27% of family homes).

- **Accountability Block Grants** (FY 05-06) have been used for “Quality Pre-K” programming in just 26 counties throughout the state, seven of which are high risk counties (Tab 9). Of these seven, four fell within the top quartile for percent of children reached (includes only counties with ABG Pre-K spending). However, community readiness indicators reveal that five of the high risk counties that spend no ABG money on pre-k are providing public school pre-k services. Thus, a total of 12 high risk counties offer some type of pre-k services.

Overall, counties using ABG funds for Quality Pre-K reached between .05% and 4.32% of the under five years population through these programs. Among the top five counties in terms of reach, or those serving more than 3% of the population under age five, three –

² This data reflects information provided in the Keystone STARS May 2006 report.
Dauphin, Lebanon, and Susquehanna – were moderate-high risk while two – McKean and Potter – were high risk.

Almost 80,000 children (79,535) were reached through ABG early childhood education programs when including grants used for Full-day Kindergarten and K-3 Class Size Reduction in addition to High Quality Pre-K Programs (Tab 8). This provided roughly $141 million in state funding for early childhood. Counties reaching 25% or more of children under age 5 in the state through all early childhood ABG programs were Carbon at 48.2%, Susquehanna at 33.5%, Warren at 30.6%, Clearfield at 26.9%, and Cameron and Wyoming at 25% each. Conversely, the counties reaching less than 5% of children under age 5 with ABG funded programming were Franklin, Cumberland, Wyoming, Lehigh, Bucks, and Chester. Forest County used no ABG money for early childhood programs.

- **Head Start Supplemental Grants** (FY 05-06) reached 11 of the 16 high risk counties in the state; however only six of these counties performed better than the state average in reaching percentages of children under 5 in low-income families. Twenty-five of the 33 moderate high risk counties also reached some percentage of the under five low-income population.

In 2005-06, there were a total of 54 agencies in 49 counties administering Head Start services in the state, reaching 4,745 students through almost $30 million in supplemental assistance grants. This left 18 counties that received no Head Start Supplemental Assistance Grants.

Among the 49 counties that received Head Start Supplemental Assistance Grants, the percent of children under five years from *low-income* households\(^3\) served ranged from a low of .24% in Bucks County, a low risk county, to a high of 11.4% in Mercer County, a high risk county. Philadelphia and Allegheny served the highest number of children, at 1,142 and 667, respectively; however, they did not place among the top 10 counties for percent of children served. Philadelphia only reached 2.03% while Allegheny was only slightly more successful, reaching 2.61%.

- Only six of the 16 “high risk” counties received **Community Engagement Group** funding at or above the median level of $36,000 (FY 04-05, Tab 2). Conversely, *all but four* of the 18 low and moderate-low risk counties fell at or above this level. Two high risk counties, Jefferson and Lawrence, received no direct Community Engagement Group money (Potter and McKean are considered as part of Northern Tier funding, which covers both of these counties as well as Elk and Cameron); however, Jefferson and Lawrence now have funded Community Engagement Groups.

There were 65 counties receiving funding for Community Engagement Groups in 2004-05, ranging from $23,000 to $50,000. Counties receiving no Community Engagement Group funding included Jefferson and Lawrence. The seven counties receiving the

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\(^3\) The population of interest for children reached is “children 5 years and under from low-income families,” as Head Start primarily serves children in poverty or from low-income households.
highest amount of funding, $50,000, were all urban or urban-mix and of moderate-high (Allegheny, Erie, Lackawanna, Lehigh, and Northampton).

- **Child care subsidies** were provided to over 80,000 children under 5 years as of July 2006 (Tab 14). On average, subsidies are used for 11% of all children under 5 or 30% of children under 5 in low-income families (less than 200% of poverty). Focusing on use among children under 5 in low-income families, percentage of children served ranges from 3% to over half (51%). Thus, targeting families using child care subsidies may be a highly effective strategy to increase use of quality early learning settings in some counties.

**Future Directions and Limitations of Use**

The Office of Child Development and Early Learning is using the program reach and risk analysis data to better tailor supports to communities. We share this compilation of information to better inform and arm communities to consider appropriate early childhood investments. Data will be updated annually, and future directions may include:

- Inclusion of federal Head Start slots as well as state-funded Head Start Supplemental Assistance Grants slots,
- Addition of data at the school district level for particularly high risk communities,
- Finer analysis by age (e.g., number as a percentage of three- and four-year-olds served in Head Start may be more appropriate than overall percentage under five), and
- Consideration of alternative risk data, such as births to teen mothers or numbers of students with disabilities.

When performing additional calculations and analyses of the data, it is important to note that calculation methods impact results. For instance, the funding per child information is considerably different depending on whether the average is taken by using the average of calculated amounts for each county (Tab 1, cell O65 or $1,132/child) as opposed to taking the total ECE spending for the state and dividing by the number of children served in state-funded ECE programs (Tab 4, cell W75). If you perform your own calculations, we strongly recommend that you use the raw data as opposed to calculated data to perform additional analyses.

We welcome your feedback on this data, analysis, and report. This will be an evolving project that will adjust to meet usage demands. If you have suggestions or would like to tell how your community used the information, please contact Wendy Etheridge Smith, Director of Policy and Planning, Office of Child Development and Early Learning, at 717-346-1116 or via email at wensmith@state.pa.us.