I. Summary

New York State spends approximately $11 billion on special education a year for K-12 students, in addition to significant amounts for remedial services and supports for Dual Language Learners. These costs could be significantly reduced if more of the State’s children had access to high quality early childhood education programs before they enter kindergarten. Quality early childhood education, particularly for low-income children, is critical for school readiness. To ensure that New York’s children enter school prepared to succeed, the State should work with the private sector to create a School Readiness Capital Partnership that would develop and manage Pay for Success (PFS) efforts to scale effective early childhood education strategies. This paper provides background information on PFS and describes how such an effort could be structured in New York.

II. Background

Quality early childhood education is critical to later success in school and life. A substantial body of research demonstrates the long-term positive effects for children, particularly those from low-income backgrounds, who participate in high quality early childhood education as compared to their peers who did not attend such programs including:

- Significant lasting effects on cognitive abilities, school progress and social behavior;
- Increased high school graduation rates;
- Higher earnings and associated tax revenue, and increased likelihood of employment and job retention; and
- Lower crime rates.

In addition to these long-term outcomes, in the shorter term, research also indicates that high quality early childhood education can significantly decrease special education placement and the need for remedial services for disadvantaged children. High rates of referral to special education services are not always in the best interest of children and is costly to taxpayers. And it can be avoided. According to the District Management

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2 Early childhood education programs and services are provided to children from birth to five years of age in settings that include nursery schools, Pre-Kindergarten, Head Start programs, child care centers and family child care homes.
3 Barnett, W. S., Preschool Education and Its Lasting Effects: Research and Policy Implications, National Institute for Early Education Research, Rutgers, the State University of New Jersey, 2008, p. 5.
5 Ibid
6 Ibid
Council, nationally “in many districts, about half of the referrals to special education are, at their root cause, for reading difficulties. Referral rates jump in third through sixth grades when reading problems make it also difficult to learn math, science, and social studies. Investments in high quality early education as well as targeted investments prior to third grade can dramatically change this dynamic.”

**The Importance of Quality in Early Childhood Education:** Quality early childhood education programs ensure that the full needs of children ages zero to five -- physical and motor development, language and literacy, cognitive development, social and emotional development and approaches to learning -- are met by a well-educated and highly trained staff. If a child starts kindergarten with deficits in these areas, catching up is extremely difficult and costly. It has been estimated that as much as half of school failure may be attributable to gaps in early care and development prior to school entry.

In fact, the National Institutes of Health’s Study of Early Care and Youth Development found that higher quality early childhood education was associated with better outcomes, and the National Institute for Early Education Research states that “intensity and quality are the keys to high returns.”

Lower quality services do not have the same effects and there is evidence that low quality can actually set children back. Indeed, a February 2012 America’s Edge report on boosting the New York economy, found that children in lower quality care are more likely to display behavior and cognitive problems than children in high quality settings. And even more troubling, recent research shows that young children can actually be harmed by low quality care. For example, a study of children in home-based child care in another state found that 40% of the children showed high and potentially harmful stress levels that were associated with being in lower quality care (with low quality care characterized by harsh or inconsistent treatment by caregivers). The result is that children ages up to the age of five who are cared for in low quality settings are far more likely to come to school unprepared. And they are more likely to bring with them behavior and cognition problems that, in turn, elevate the risks that they will need special education services and subsequently fail to graduate from high school.

**Early Childhood Education in New York State:** New York has made significant gains in developing a comprehensive early childhood education system. There are approximately 625,000 early childhood education slots in New York to serve children from infancy through age five annually. To ensure that these programs offer the highest quality services, in 2008 New York began implementation of its first statewide quality

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8 [http://www.dmcouncil.org](http://www.dmcouncil.org)
10 [http://www.nichd.nih.gov/health/topics/seccyd.cfm](http://www.nichd.nih.gov/health/topics/seccyd.cfm)
11 [http://www.nieer.org](http://www.nieer.org)
rating and improvement system for early childhood programs, QUALITYstarsNY. The initiative is distinguished by its capacity to support all early childhood education service delivery systems including child care, Prekindergarten, Head Start, and family child care, to ensure that whatever kind of program a family chooses for its children, it is of high quality. Supported by a mix of public and private funding, 400 programs and providers serving children from age zero to five are currently engaged in the QUALITYstarsNY process, with the goal of enrolling as many programs as possible across the State. Components of QUALITYstarsNY include comprehensive program standards, financial incentives, data, monitoring, and accountability, professional development and technical assistance and parent/consumer education.

Further, New York’s Universal Prekindergarten (UPK) program serves approximately 105,000 four-year-old children across the State. However, New York now ranks 9th of all states in terms of pre-school enrollment for all four year-olds, and 24th for all three year-olds, and current State funding only supports two and half hours of UPK programming. Additionally, public funding for the wide range of quality early education programs needed to improve child outcomes and support school readiness is extremely limited. Indeed, it is estimated that as many as 816,000 children under the age of six potentially need early education services in New York State.15

**Education Reform and Early Care and Education:** In April 2012, Governor Andrew Cuomo announced the establishment of the New NY Education Reform Commission. The Commission is charged with developing strategies to reform the State’s education system “to improve performance in the classroom so that all of New York’s students are fully prepared for their futures.”16 This includes examining “model programs to improve student achievement beginning in early learning programs.”17 An early childhood education-PFS effort, framed as a key initiative of a School Readiness Capital Partnership, is ideally situated to fit into the Commission’s reform strategies and help the State meet its school readiness goals.

Because high quality early childhood education programs that serve children from infancy to age five are foundational to success in school, they must be a central focus of educational reform efforts. The New York State English Language Arts (ELA) examination, which measures reading and writing ability, is given to students in third through eighth grades. Forty-five percent of third graders score at the basic level of competency or below.18 Failure to read at grade level can lead to grade retention and, in turn, loss of interest and motivation to succeed in school. Children who are not reading proficiently at third grade are four times more likely to fail to graduate.19 As a result, far too many of these children will never catch up. Most of them are poor and many of

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17 Ibid., p.2.
19 Philips, Deborah, *Building a Birth to Third Grade Policy Agenda* presentation at the National Governors Association Policy Institute for Governor’s Advisors and Early Childhood Advisory Councils. May 9, 2012
them are English Language Learners. Participation in high quality early childhood education programs for children under the age of five can reduce this disparity and prepare all children for successful school experiences. As such, New York’s investment in quality improvement can have immediate, mid- and long-term benefits.

**About Pay for Success:** As local and state governments struggle to fund even mandatory services, effective preventive programs that improve outcomes for at-risk individuals, communities, and society at large— as well as save public funding—are getting short shrift. Pay for Success (PFS), an innovative financing approach, provides a unique opportunity to harness the power of private investment to expand and enhance preventive services, from social services, to housing, health care, workforce development and education.²⁰

PFS is essentially a contract between a government entity and investors that pays for improved social outcomes and achieves cost savings. Private investors pay to fund proven preventive programs that drive substantial social benefits and cost savings to government. Pay back and any Return on Investment to the investors is predicated on the attainment of pre-determined social outcomes and evaluation conducted by an independent entity.

Two primary Pay for Success financing structures are currently being utilized: the Human Capital Performance Bond (HUCAP) and Social Impact Bonds (SIBs). The HUCAP, being implemented in Minnesota, is executed through a public bond structure issued in the U.S. municipal bond market. Social Impact Bonds, such as is under implementation in New York City, utilize a private equity structure to pay for evidence-based services designed to generate positive social outcomes and corresponding savings to government. For example, the New York City effort uses private capital to fund services aimed at reducing the rate at which 16-18 year olds re-enter the City’s jail system, thus generating cost savings to the City’s Department of Corrections. Variations on these models include SIBs with full or partial guarantees and a hybrid HUCAP/SIB with a guarantee.²¹ Each of these options has varying levels of risk and reward for each stakeholder, and selecting which makes the most sense for a given PFS project depends on several factors such as availability of working capital, provider readiness, flexibility of government procurement systems and political considerations.²²

While these efforts are nascent and not yet proven, the PFS concept has generated substantial interest and excitement in the U.S. Several jurisdictions across the country are actively exploring PFS projects, including New York State. There is general agreement that to be appropriate for the PFS financing structure, projects should meet the following criteria:

²⁰ The New York State Division of the Budget recently released a Request for Information (RFI) to identify potential opportunities for New York to benefit from Pay for Success models. Educating children and efforts to improve kindergarten readiness are cited as priority areas. See [https://www.budget.ny.gov/contract/socialServicesFinancing/rfi_socialServicesFinancing.html](https://www.budget.ny.gov/contract/socialServicesFinancing/rfi_socialServicesFinancing.html)


²² Ibid.
• Have clear, identifiable and measurable social and financial outcomes;
• Result in savings to government that substantially exceed the cost of the preventive program;
• Have a relatively short period of time (not more than eight years) between the attainment of social outcome and cost savings and return on capital;
• Uses evidence-based practice with a depth of impact; and
• Be scalable.

PFS models are designed to use private investment to direct taxpayer dollars to preventive and early intervention programs and services that have demonstrated success in delivering social and economic outcomes. The focus of these structures is on paying for outcomes rather than activities, specifically outcomes that are measurable within three to eight years using known programs that have been proved effective. These financing mechanisms are contracts that:

• Leverage private capital
• Monetize social impact/outcomes of social services
• Realize costs savings for government
• Connect performance outcomes to financial return

**PFS Structure and Roles and Responsibilities:** There are four primary partners in any PFS structure: private funders/investors, a government agency(cies), an intermediary and service providers. An independent evaluator selected and agreed upon by all parties is also a key component of the PFS ecosystem.

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23 Ibid.
Private Funders/Investors can be foundations, banks, investment firms, and high net-worth individuals who provide up front funding for the selected program.

One or several government agencies are responsible for defining outcomes, developing a sound methodology to monetize savings, and paying back the investors if and when the pre-determined outcomes are achieved.

It is useful to think of PFS as building on performance-based contracting, in which a government agency agrees to pays an outside organization entirely based on the organization’s ability -- in collaboration with the government entity -- to achieve measurable, positive outcomes that have been identified and agreed to by all parties, and verified by an outside evaluator.

While many government agencies have experience with performance-based contracting, PFS requires the focus to be entirely on paying for outcomes rather than outputs, something which can be a challenge. It is critical in this structure that government and the intermediary organization work closely as partners to measure progress and achieve success.

Often, the intermediary organization in a PFS structure functions as both fund and program manager. As Fund Manager, the intermediary: 1) develops financial models and payment arrangements; 2) raises private capital from investors to support the operations of the program(s); 3) coordinates and holds contracts between the government agency(s) and investor(s), as well as with service providers, and possibly the evaluator as well; and 4) manages the fund and the flow of capital between parties.

In addition, the intermediary provides a range of Program Management services to directly support the program’s success by monitoring progress, and adapting strategies as needed to ensure that results linked to payments are achieved. The intermediary coordinates between the government agencies and direct services providers to plan, implement, oversee, and continuously manage the performance of the program. Furthermore, to ensure success, the intermediary creates and operationalizes a comprehensive performance management system to ensure the attainment of payment-related outcomes. Components of this system include:

- Data collection and analysis to monitor key programmatic indicators, and identify and troubleshoot challenges on a timely basis.
- Advisement on management practices and technical assistance to service providers;
- Regular site visits, meetings and programmatic reviews.
- Management reports that track performance, identify weaknesses, and develop corrective actions.
- Monitoring and support of corrective actions, as needed.
These continuous performance management practices provide investors with confidence that the project will be well executed and closely monitored. While they are intended to drive performance, they do not replace the role of the independent evaluator that is charged with objectively assessing performance without bias towards any particular stakeholder.

The role of the independent evaluator is to determine if outcomes have been met and the level of payment due using the data generated. The entity that takes on the evaluator role should be selected and agreed upon by all parties, and should be engaged as early as possible in the contract negotiation process to ensure that the evaluation methodology developed is fully integrated into the payment structure and agreement. Such integration and a collaborative relationship between the intermediary and evaluator helps to ensure that performance management and data collection systems will track progress in “real time” and to inform and facilitate adjustments in the service delivery model as needed.

Nonprofit service providers enter into contracts with the intermediary organization to provide the specified intervention(s) in order to achieve the identified outcomes. Nonprofits that have experience successfully operating proven, scalable approaches, as well as with evaluation and multi-partner efforts are best suited to the PFS model.

**PFS Opportunities and Challenges:** PFS has the potential to improve outcomes while providing up-front, multi-year funding to service providers at minimal risk to government. However, a number of challenges exist in putting these deals together. It can be difficult to identify programs that generate outcomes and corresponding cost savings that are monetizable within a relatively short period of time, and key to this is the ability to separate the effects of various programs on the target population to identify what is driving cost savings.

To be appealing to investors, individual PFS efforts must include strong public sector support, rigorous statistical demonstrations of projected benefits that clearly establish an economic linkage between the services being funded and the benefits, and sound legal foundations for PFS issuing organizations. Business leadership will also be critical to demonstrate the soundness of such investments. Contracts between PFS entities must be clear and enforceable, with terms that are negotiated and agreed to by all parties. Legal and tax implications also need to be thoroughly assessed and addressed.

**Pay for Success and Early Care and Education:** As described above, research demonstrates that high quality early childhood education programs and services can have "lasting benefits for learning and educational achievement, school progress and

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educational attainment, and social behavior, including delinquency and crime. As such, this intervention can significantly reduce future government spending in a number of areas including welfare dependency, and incarceration as well as increase revenue in the form of greater earnings potential. The documented impact of quality early childhood education programs on reducing special education placements and the need for remedial and Dual Language learner services is of most promise in the PFS context.

According to a study conducted by the Kauffman Foundation and ReadyNation, “because special education service costs are quite high relative to preschool costs, the benefits appear to be largely attractive. They also appear to be monetizable within 36 to 48 months.” While past research is not sufficient to determine rates of costs savings for a PFS in New York today, studies show a significant potential for savings. For example, a study of the Pennsylvania Pre-k Counts program conducted in 2006, found that special education placement rates for children who participated in the program were reduced to 2.4% from a historical special education placement rate of 18.6%, an 87% decline. A study conducted in a school district in Salt Lake City, Utah found that the district’s prekindergarten program “is associated with a reduction in the projected rate of special education assignment from 34% to 1%.” And, studies of the Perry Preschool and Abecedarian Early Childhood Programs document a reduction of special education assignments of about 50%. It is important to note that impacts of early childhood education on long-term success are greatest when children participate in services in their youngest years.

III. Using Pay for Success to Enhance and Expand Quality Early Childhood Education in New York

A New York early childhood education-PFS project would use private capital to finance quality early childhood education programs where the benefit-to-cost ratios could be substantial enough to pay back the investment with government funds generated through savings in special education and other remedial services in the K-12 system. The goal is to generate funds for future financing rounds so that efforts to enhance and expand quality early childhood education programs can be funded by the savings generated from decreases in special education placements and the need for remedial services, ostensibly shifting resources from remediation to prevention.

A School Readiness Capital Partnership could garner investments, and develop and manage projects, using a public/private partnership structure. For example, once the PFS structure proves successful in expanding QUALITYstarsNY, it could be used to expand other early childhood education interventions such as the Universal Prekindergarten and Healthy Families New York (HFNY) programs. HFNY has been shown to improve school readiness, decrease rates of low-birth weight babies and prevent child maltreatment. An initiative to expand HFNY could be funded using a PFS

27 Ibid., p. 51.
28 Ibid., p. 42.
structure to garner savings from decreased costs related to these outcomes. Additionally, efforts could be explored to increase access to existing services, such as using a PFS structure to provide financial assistance to low-income working families that earn too much to qualify for child care assistance, but too little to afford high quality services on their own.

Such an effort is ideally suited to be a second phase PFS initiative of the Partnership, and will be particularly important to ensure that programs that have completed QUALITYstarsNY are fully enrolled. As such, financial assistance could be provided to parents to enroll their children in QUALITYstarsNY sites so as to ensure their access to these high quality programs. And, the documented attainment of concrete social and cost savings outcomes related to children’s participation in quality early childhood education from infancy to age five will serve to highlight the critical importance of continued and expanded investment in these services.

In 2008-2009, New York’s annual per pupil special education expenditures were $26,550, as compared to roughly $11,000 for general education. It is estimated that in October 2010, 13% of K-12 students in New York were classified as special education. Approximately 74% of these special education students were diagnosed with disabilities that have been shown by research to be ameliorated by engagement in quality early childhood education.\footnote{These include specific learning disabilities, speech and language impairments, and emotional disturbances. \textit{Op. Cit.}, Dugger, R., & Litan, R., p. 39.} By improving the quality of early childhood education programs in high need districts, the number of elementary school students referred to special education programs could be reduced, saving approximately $15,550 for each fewer special education student.

But, how do we ensure that young children, especially those most at-risk for school failure, have access to the high quality early childhood education services critical to closing the achievement gap and generating both short and long term outcomes? QUALITYstarsNY provides an ideal framework and PFS offers a unique opportunity to build on the State’s investment. For a modest investment per child, QUALITYstarsNY offers New York a clear, organized mechanism to assess, improve, and communicate the quality of early childhood education programs. QUALITYstarsNY provides parents with information to make informed decisions about their child’s care and education, trains teachers to advance their skills and impact child outcomes, and offers taxpayers and investors an accountable and cost-effective system for ensuring school readiness.

QUALITYstarsNY is designed to include the wide range of early childhood education programs that serve young children starting in infancy and their families in New York State including family- and center-based child care, Early Head Start, Head Start, Universal Prekindergarten, Center-based Preschool Special Education programs, and nursery schools. While many states have implemented quality rating and improvement systems, only a few have realized the efficiencies of the cross system approach that is incorporated into the design of QUALITYstarsNY. And, QUALITYstarsNY builds state capacity for maintaining program accountability and maximizing state investments in
early childhood services which, including federal funding, are approximately $2.5 billion per year.

Of the total 400 programs currently participating in QUALITYstarsNY, 230 are center-based and are located in counties across the State with the capacity to serve approximately 23,000 children birth through age five. Over half of these programs are located in school districts with Persistently Low Achieving schools. By engaging in QUALITYstarsNY, these programs have demonstrated their commitment to providing quality services that focus on child outcomes and the infrastructure is already in place to improve and measure progress towards quality improvement, making this initiative highly scalable across the State. Specifically, funding would be used to:

- Conduct the Environment Rating Scale (ERS) assessment for participating programs
- Provide incentives for programs to participate
- Assist programs through the standards completion process
- Work with programs to develop a Quality Improvement Plan
- Link programs to professional development and quality improvement resources
- Coach program leadership to successfully move through improvement steps
- Develop mechanisms to ensure that parents, particularly those of at-risk children in the target communities know about the availability of quality early learning programs and why those programs are critical to their children’s development

As with the current QUALITYstarsNY sites, preference for new sites would be given to programs that serve at least 25% low-income children as defined by those children who receive subsidies to attend child care in the form of vouchers or Temporary Assistance for Needy Families (TANF) or who are in contracted subsidized child care. As such, the resources and incentives provided by QUALITYstarsNY will encourage programs to serve subsidy-eligible children, while at the same time ensuring an ample supply of quality programs in high-need communities.

IV. Potential Impact and Next Steps

The preliminary information detailed in this paper is only the beginning. The next phase of this effort would be to conduct a benchmark study to create a sound projection model in which all PFS stakeholders can have confidence. This local benchmark study would detail program costs and savings to illustrate the effects of the investment in program quality on school readiness, more accurately project the amount of cost savings, and show that the investment in quality led to the cost reduction.

For example, a QUALITYstarsNY benchmark study would be used to inform the Return on Investment analysis and detail at what point the initiative will break even. Based on a preliminary analysis, it is estimated that by improving the quality of 500 early childhood education programs that serve over 50,000 children each year, the rate at which these children are placed in special education during elementary school could potentially be reduced by 15%. At this level of impact, by the fourth year of the initiative, there would be a total of 2,206 students fewer special education students in these districts,
accumulating a cost savings of almost $7 million by the second year of the initiative, increasing to a cost savings of more than $34 million in year four, for a cumulative savings of $57.7 million in special education costs (see preliminary financial model below).\textsuperscript{32}

The benchmark study would build on this analysis and be used to negotiate and calibrate contract terms as well as serve as a basis for the independent evaluation that will be used to confirm social and cost savings outcomes to generate re-payment. Resources would need to be raised to conduct the benchmark study, draft PFS contract parameters including pay back terms and triggers, and determine evaluation methodology.

V. Conclusion

While PFS financing should not be viewed as a funding panacea, nor does utilizing such a structure absolve government of its critical role as the primary funder of early childhood education services. However, it does provide a significant opportunity to garner additional resources to scale what works, while ensuring better outcomes for children and more effective use of scarce public resources. As such, PFS financing should be included as one of several tools used to expand and enhance the availability of quality early childhood education services for New York’s youngest children.

\textsuperscript{32} Note that this is a preliminary estimate based on limited data and does not include savings related to reductions in remedial and Dual Language Learner services.
# Preliminary Financial Model

<table>
<thead>
<tr>
<th>Investment in QUALITYstarsNY</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4 *</th>
<th>Year 5 *</th>
</tr>
</thead>
<tbody>
<tr>
<td># Early childhood education sites that have completed QSNY quality improvement process**</td>
<td>230</td>
<td>400</td>
<td>500</td>
<td>500</td>
<td>500</td>
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<tr>
<td>Student capacity at early childhood education sites that have finished QSNY process</td>
<td>23031</td>
<td>40054</td>
<td>50067</td>
<td>50067</td>
<td>50067</td>
</tr>
<tr>
<td>Total Current K-12 Special Education Rate (statewide average) ***</td>
<td>13.00%</td>
<td>13.00%</td>
<td>13.00%</td>
<td>13.00%</td>
<td>13.00%</td>
</tr>
<tr>
<td>Special Ed Spending per pupil (state average)</td>
<td>$26,550</td>
<td>$26,550</td>
<td>$26,550</td>
<td>$26,550</td>
<td>$26,550</td>
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<td>General Ed Spending per pupil (state average)</td>
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<tr>
<td>Cost savings for each fewer special ed pupil</td>
<td>$15,550</td>
<td>$15,550</td>
<td>$15,550</td>
<td>$15,550</td>
<td>$15,550</td>
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<tr>
<td># of kids/year from cohort placed in special ed w/o intervention</td>
<td>2994</td>
<td>5207</td>
<td>6509</td>
<td>6509</td>
<td>6509</td>
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<tr>
<td>Reduction Factor after QSNY Intervention</td>
<td>15.00%</td>
<td>15.00%</td>
<td>15.00%</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>Decrease in Number of Special Ed Kids, after QSNY intervention ****</td>
<td>-</td>
<td>449</td>
<td>1230</td>
<td>2206</td>
<td>2206</td>
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<tr>
<td>Total Cost Savings, each year</td>
<td>$0</td>
<td>$6,983,520</td>
<td>$19,128,773</td>
<td>$34,310,339</td>
<td>$34,310,339</td>
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<tr>
<td>Net, Cumulative</td>
<td>-$9,462,600</td>
<td>-$16,613,994</td>
<td>-$10,869,129</td>
<td>$23,441,210</td>
<td>$57,751,549</td>
</tr>
</tbody>
</table>

* Investment in intervention only lasts 3 years, but cost savings is calculated and reaped throughout 4th year after program start.

**The number of participating programs is not cumulative.

*** Current K-12 special education rate is set at 13.0%, although rate in school districts targeted by QUALITYstarsNY is almost 15%. More detailed analysis on the baseline levels can be done once all 500 early childhood education sites have been selected.

**** Each year after program start, the decrease in the number of special ed placements is cumulative. In Year 2, one cohort of children is impacted; by Year 3, two cohorts have been impacted; by Year 4, three cohorts have been impacted.