

# **Early Childhood Education as a Means for Reducing Inequality: Research, Policy and Practice**

## **Literature Review**

**Prepared for the Committee Studying**

**Inequality in Education:**

**Relationships between Rising  
Socioeconomic Inequality and Equality of  
Opportunity**

**The Initiative for Applied Education Research**

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## Introduction

Socio-economic disparities shape children's lives from their very first years. In part, these disparities are expressed in lower birth weight, lesser access to health services, extent of exposure to literacy at an early age, and readiness for first grade, and are also expressed during later stages of education (Karoly, Kilborn & Canon, 2005; Duncan & Murnane, 2011). Already at very young ages, there is a gap in the cognitive and emotional development between children from low socioeconomic (SES) backgrounds and those from high socioeconomic backgrounds. Hart and Risely's (1995) research showed that at age three, the vocabulary of children from disadvantaged families is half the vocabulary of children from affluent families. A follow-up study found that at age nine, these same children's scores on literacy tests were correlated with their vocabulary at age three. Hoff (2003) found that differences in three-year olds' linguistic development are explained mainly by the vocabulary used by their mothers. A series of studies conducted by the U.S. Department of Education, as part of their nationally representative Early Childhood Longitudinal Study of the Kindergarten Class of 1998-1999 (ECLS-K) found that with respect to their knowledge and the social skills recognized as necessary for the most basic functioning within the education system, children from disadvantaged families enter school less prepared than their peers (West, Denton & Germino-Hausken, 2000). Another study showed that 40% of the gap in academic achievement between young children from disadvantaged families and their peers from higher socioeconomic (SES) families is explained by their home learning environment and the extent of their exposure to stories, vocabulary, etc. in the home (Duncan, Yeung, Brooks-Gunn & Smith, 1998).

In the U.S., socioeconomic disparities parallel the disparities between different ethnic groups (whites, Hispanics and Afro-Americans). Thus, it was found that the gaps between different ethnic groups are similar to the findings for gaps between different SES groups. According to another study, 90% of the disparity in math attainments between eighth grade students from different ethnic groups is already present at kindergarten age (Gambaro, Stewart & Waldfogel, 2013). In light of these results, we pose the question of whether and how can different intervention programs (education frameworks, parent training) reduce these gaps?

The first chapter of this review (following the Introduction) looks at which characteristics of early childhood education were found to contribute to children's cognitive and emotional development and what can findings from small-scale intervention programs teach us, as compared to those from large-scale programs? Does spending many hours a day in the education framework contribute to achievement? And, what are the long-term effects of early childhood intervention

programs? The chapter relies on findings from literature reviews conducted on this topic by the European Union, the OECD, and leading research institutes in the U.S.

The second chapter presents the policy for early childhood education frameworks, ages birth to three (0-3) from a comparative perspective, with emphasis on OECD countries. The chapter presents the legislative and regulatory arrangements relevant to daycare centers, their quality and their target audience. The chapter then turns toward examining the degree to which current policy supports equality of opportunity and promotes development for toddlers from disadvantaged families.

The third chapter focuses on preschool education policy in Israel as compared to the OECD countries. The chapter analyzes the policy in Israel along two axes: accessibility versus quality and universality versus progressivity. The chapter focuses on the most recent reform led by the Ministry of Education with respect to preschool education, with emphasis on the New Horizon reform, Long School Day, and Second Aide reforms.

The fourth and final chapter presents the status of research regarding early childhood education in Israel. The chapter points out the areas in which there is a lack of data and the areas of knowledge which research can illuminate.

## Methodology

The first review chapter whose main focus is the review of research literature in the field presents findings from nine broad literature reviews published between 2000 and 2015. The research covered here concentrates on prominent literature reviews that addressed the contribution of early childhood education from ages birth to six (0-6) to narrowing disparities. Due to considerations of space, the present review gave priority to research based on large samples, studies using RCT (randomized control trials) methodology, and to longitudinal studies. These factors guided us in placing emphasis on findings from program evaluation studies of the U.S.-based Head Start and Early Head Start programs, and the U.K.-based Effective Provision of Pre-school, Primary and Secondary Education (EPPSE) program.

The two chapters that follow present the early childhood policy for ages 0-3 and 3-6 as compared to the OECD countries, and examine major reforms and trends. The comparisons are based mainly on the findings in OECD reports, and in particular, the reports “Starting Strong I” and “Starting Strong II,” as well as “Quality Matters,” and the European Commission’s “Key Data on Early Childhood Education and Care in Europe,” published in 2014. The information about Israeli policy is based on reports of the Knesset Information and Research Center, government websites, and sources found in the (Israeli) National Library database.

## 1. Early Childhood Education as a Means for Reducing Gaps: Research Findings

As described in the Introduction, research findings support the claim that achievement gaps between children in later stages of education are already expressed in the very early stages of infancy and are largely explained by the SES disparities between the children. This chapter seeks to examine, whether and to what extent, early childhood intervention programs can bridge the SES gap and narrow the achievement and development disparities between children.

Research that has examined the impact of early childhood intervention programs is generally divided into three main waves: the first wave, influenced by attachment theory which assumed that the separation from the mother, as a result of entrance into an education framework, may lead to negative consequences for the child. This group of studies focused on the question of whether care settings during early childhood are detrimental to children. The second wave examined the way in which the care environment and the quality of care influenced the child's development. The third wave examined the relationships between the home and the care environment and how the interaction between the education staff and the children affects the development of the child (Melhuish, 2001). This chapter presents findings from the three waves found in the research. It seeks to enter the fray and to unravel the statement concerning the relationship between quality education and improved outcomes for disadvantaged children into its component parts. The chapter will look at how the age of entrance into the education setting influences children's achievements (does earlier entrance improve achievement)? The extent to which the length of time spent in the setting (a full day versus half a day) affect children's achievements, the impact of parent-focused intervention programs (outside the education framework), the effect of intervention programs over time, etc.

### 1.1 The Impact of Early Childhood Intervention Programs on Development in the Short-term

#### 1.1.1 The Impact of Programs for Ages Birth to Three

In general, fewer studies were found which examined the impact of intervention programs for ages 0-3 (compared to studies researching the effects of programs for ages 3-6). Among the studies found were the Early Head Start (EHS) program, an American federal program developed in 1994 following the recommendation of the Secretary's Advisory Committee on Services for Families with Infants and Toddlers to expand the Head Start (HS) program for children aged 0-3. The aim of the program is to support children's development and improve their health, to strengthen families and community connections, and to support staff that work

with low income families, pregnant women, infants and toddlers. The program provides early childhood care frameworks, developmental evaluations, health services, and parent training. The federal program operates through outsourcing such that, in practice, the programs are run by different operators that meet pre-determined criteria. In 2012, more than 167,000 children and pregnant women participated in the program run by more than 1,000 operators (see the [EHS program](#) site).

The evaluation study of the program conducted by Love et al. (2002) examined 17 program settings that included 3,000 children up to age three who were randomly selected for controlled trials (using an RCT study design) in order to assess the impact of the interventions. The study results showed a number of effects of intervention program participation: for parents, the program led to the exhibition of greater warmth and support for the children, less emotional detachment, more play time with children, a home environment richer in stimuli, more support of linguistic development, fewer physical punishments and more diverse tools used for exercising authority. The parents participating in the program had greater chances for employment and delayed having more children (Love et al., 2002).

Children in the research groups demonstrated better cognitive development, better linguistic development, fewer hospitalizations and a better record of immunizations, lower levels of aggressive behavior, and relationships with more involved and less negative parents. At the same time, the effect on the achievements measured were modest and ranged between 10% and 20%, as compared to the control group. The program improved the development of participating children, as compared to children in the control group, although children in the research group attained lower than average achievements. A similar result was also found for the children's achievements in the area of literacy. In other words, the program did help to narrow gaps but did not close them (Love et al., 2002).

The research found that the program had a differential impact on groups from different backgrounds. The effects of the program were greater for African-Americans (compared to other ethnic groups, for example, Hispanics, with a lesser impact on white families), for women who began the program while pregnant and for children identified as having multiple risk factors. The greatest positive effect was for families with a moderate level of risk (Love et al., 2002).

### 1.1.2 The Impact of the Program for Ages Three to Six

The Head Start (HS) program was established in the mid-1960s as an early childhood summer program, which was then expanded. The goal of the program is to promote readiness for first

grade among children from low income families. Today, approximately one million children participate in the program annually (including EHS). The program is federally funded and individually operated by the various states. In 2014, the federal government invested roughly 8.58 billion dollars in EHS and HS programs (Head Start Program Facts, 2014). A typical intervention program includes a daycare education program, while some programs also integrate home intervention (Melhuish et al., 2015). An evaluation study that followed the HS program (Head Start Impact Study – HSIS) examined a sample of 4,667 children who participated the program (2,559 three year olds and 2,108 four year olds) in 23 U.S. states. The study used the ECERS-R<sup>1</sup> scale to measure the quality of the education setting. The study showed that access to the HS program modestly improves the child’s preschool experience and his readiness for first grade (Puma et al., 2012). Another study which analyzed 30 years of studies evaluating the program arrived at similar findings according to which the program has a small short-term positive effect however, in most cases, the effect dissipates upon entering school (Kresh, 1998 in Melhuish et al., 2015). Similar to EHS, HS has a positive influence on parents and parenting, as seen in a reduction of parental anxiety, depression and tension, and improved communication between parents and children (Melhuish et al., 2015).

Another group of researchers analyzed data from the Early Childhood Longitudinal Study (ECLS-K) that examined the extent of the effect of preschool education on student achievement. The research included a representative sample of 12,800 children in the U.S. After controlling for the child’s SES background and familial factors, the research found that children who attended preschool education settings were more successful in literacy and math at ages five and six. It was found that preschool education had a more profound effect on children from disadvantaged families (Magnuson, Meyers, Ruhm & Waldfogel, 2003).

The British study, the Effective Provision of Pre-school, Primary and Secondary Education (EPPSE)<sup>2</sup>, is the largest longitudinal study conducted in Europe. It began in 1997 and followed the development of more than 3,000 children from age two or three until the end of compulsory education (age 16). Although the study did not focus only on at-risk children, the researchers examined how the various attributes of early childhood education affects children from different SES groups. The study defined five indicators of the child’s level of disadvantage: 1) SES; 2) level of mother’s education; 3) income; 4) eligibility for free school meals (an indicator of

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<sup>1</sup> The Early Childhood Environment Rating Scale - Revised

<sup>2</sup> More focused consideration of the issue of quality in education is presented below.

poverty); 5) multiple levels of disadvantage<sup>3</sup> (young mother at time of child's birth, low birth weight, large number of children, low SES, etc.).

The study pointed to the positive implications of quality education<sup>4</sup> on children's development (Sammons et al., 2003):

- Preschool education, as compared to home education, contributes to children's development
- Ongoing education is associated with intellectual development and improved independence, ability to concentrate and social skills
- Children from disadvantaged families especially benefit from quality preschool education, particularly if they attend heterogeneous settings
- For early childhood, the quality of the education framework is directly linked to children's intellectual, social and behavioral development
- Quality education can be found in all types of frameworks, however, the highest quality was found in preschools adjacent to schools (as compared to home-based nursery frameworks)
- Higher quality frameworks are those where teachers have high competencies, and were trained for their work
- Children advanced to a greater degree in settings where social and educational development were viewed as supplementing one another and equal in importance
- Effective pedagogy includes interaction related to traditional teaching
- Several characteristics were associated with better outcomes for children: the care staff's training – for programs operating within the education setting, this means that the primary caregiver possesses higher education as compared to a primary caregiver with no higher education. With respect to programs that include home visits and parent training, the research found an advantage for visits conducted by nurses as compared to non-professional staff
- With reference to education frameworks, the programs attain greater success when there is a lower caregiver-child ratio (Karoly, Kilburn & Cannon, 2006)
- With respect to the optimal number of hours spent in the program, there is no definite conclusion. It has not been possible to absolutely determine the optimally desirable number

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<sup>3</sup> Multiple Disadvantage Index (MDI)

<sup>4</sup><http://webarchive.nationalarchives.gov.uk/20130401151715/http://www.education.gov.uk/publications/eOrderingDownload/SSU-FR-2004-01.pdf>

of hours however, the research shows that beyond a certain number of hours, there are diminishing returns

## 1.2 Long-term Impact of Early Childhood Intervention Programs

### 1.2.1 Programs Starting at Birth

The Abecedarian Project was an early childhood intervention program targeting impoverished African-American families in North Carolina from 1972 to 1977. The treatment group included 111 children of low income, low IQ mothers. The participants were randomly selected for the treatment and control groups (an RCT study). The treatment group participated in an education program that included care in an education setting and home visits from three months of age until they entered school. The control group received welfare services, family allowances, subsidized or free health care and nutrition; the program, however, did not include funding for an early childhood framework beyond what the parents or the local authority provided. The intervention program for the treatment group had a high structural quality and assigned a certified teacher to every three children up to age three and one to every six children over age three. At age five, when they entered school, the group participants were once again divided so that half of each group had participated in the intervention program and half had not. As compared to the control group, the children who participated in the educational program showed cognitive improvement manifested in academic achievement and better behavior. These attainments remained until age 21. The earlier the age of entry into the program, the greater its influence. The program participants had a 50% lower chance of having to repeat a primary school grade.

At age 21, 104 of the participants were re-examined and the research showed that:

- a. The treatment group participants had higher cognitive achievements throughout the entire period, relative to the control group
- b. The treatment group participants had twice the chance of attaining higher education, as compared to the control group (40% vs. 20%)
- c. Relative to the control group, the treatment group participants were more likely to delay parenthood (they were at least one year older)
- d. There were no significant differences between the groups with respect to criminal behavior although there was a lower probability of marijuana use
- e. The mothers in the intervention group were more educated and had a higher probability of being employed

### 1.2.2 Ages Three to Six

The Perry Preschool Study - one of the most well-known intervention programs. This program, which began in 1967 included a half-day intervention program for three-year old African-American children, combined with weekly visits of 90 minutes to the parents' homes. The children selected for participation in the program had an IQ of less than 90 and were randomly assigned to the intervention program or to the control group (an RCT study). The study followed 123 children until adulthood. The program included a quality curriculum and personnel. In the short term, the IQ of the children participating in the program increased, as did their academic achievements, compared to the control group. Throughout the school years, the program participants' IQ and academic achievements decreased although they remained higher relative to the control group. At age 27, the long-term effects of the program included a lower school dropout rate, lower drug use, lower teenage pregnancy, increased employment, lesser dependence on welfare allowances and lower criminal behavior. In addition, fewer women suffered from unstable mental health and men had fewer criminal arrests (Schweinhart et al., 2003).

The Milwaukee Project - an intervention program that targeted children of unemployed, poor mothers who had an IQ of under 75. Forty children participated in the intervention program which included education in a full day education-oriented setting. The program included a treatment group and a control group. At the end of the intervention, the children in the treatment group had a higher IQ and greater readiness for first grade. Later on, in school, treatment group members had a lower probability of repeating a grade. At age 14, the IQ of those in the intervention group was lower than in the past but still higher than that of the control group. Despite the differences in IQ, at age 14, there were no differences between the groups with respect to academic achievement (Garber, 1988).

The Head Start program - as mentioned above, evaluation studies of the HS program found that participation in HS is linked to cognitive and developmental improvements over the short term. An HS evaluation study showed that some of the advantages of intervention continue into first grade although most do not continue into third grade (Puma et al., 2012). Another study that examined the long-term influence of HS found that for boys, HS participation is linked to greater chances of completing high school and to higher education. A positive, though weak, correlation was found between program participation and higher income earned in their 20s. African-Americans who had participated in the program had a lower probability of being involved in

crime (Garces, Thomas & Currie, 2000). One of the explanations for the lesser influence of the program on African-Americans is that the schools they attended were of low quality relative to the schools attended by white and Hispanic children (Melhuish et al., 2015).

Another longitudinal study based on data from the Star Project in Tennessee<sup>5</sup> tracked the effect of quality education in kindergarten for 25 years and found a connection between quality education in early childhood and persistence in school, higher education, and income level, with the greatest beneficiaries being children from low SES families (Chetty et al., 2010).

### 1.3 Importance of Care / Education Framework Quality for Reducing Disparities

In the professional literature, it is currently customary to distinguish between two main groups of variables from which the quality of early childhood care is derived: structural quality and process quality. Structural quality relates to the inputs from the education setting, for example, the number of children in the group, the ratio between the number of children to the number of caregivers, the size of the structure, the education staff's education and professional development, etc. Process quality relates to the setting's educational and care processes: the way the caregiver or the teacher addresses the child, the interaction that takes place between them, responsiveness to the child's needs and desires, etc. In recent years, there have been a number of organizations involved in distilling the concept of quality into its component parts and into the characteristics that make an education framework a quality facility. Among them are the recommendations issued by the National Association for the Education of Young Children (NAEYC) and the National Institute of Child Health and Human Development (NICHD) in the U.S., and the series of research studies by the OECD on the topic of early childhood and in particular, *Starting Strong* and *Quality Tool Box* (OECD, 2012), as well as the recommendations of the U.K.-based Sutton Trust (2014). According to these groups, we can point to a number of characteristics of quality education for the young ages:

- a. Standardization – group size and the ratio between the number of caregivers and number of children influences the quality of care in early childhood frameworks and represents the best predictor of quality care. Research shows that for ages two and under, the recommended group size is up to eight children and a 1:5 ratio of caregivers to children. For two to three year olds, the recommended group size is up to 12 children, with a 1:5 ratio of caregivers to children. For three to four year olds, the ratio of caregivers (teachers and aides) to children

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<sup>5</sup> The Star Project sought to examine the effect of class size on student achievement based on a sample size of 11,000 students.

should be 1:7 with a maximum group size of 14 children. For four to five year olds, the ratio of caregivers to children should be 1:10 with a maximum group size of 20 children.

- b. Supportive learning environment – access to a learning environment and to materials that support the child’s development and enable him to investigate his surroundings.
- c. Pedagogic practices – methods of working that support the child’s development with emphasis on stimuli that support development of language and communication (through conversation, songs, rhythm and reading), and summoning opportunities for physical activity and movement.
- d. Interaction between caregivers and children – positive interaction between the caregiver and the toddler is expressed through sensitive care and high responsiveness to his needs, attention and positive, safe, emotional engagement which create a sensitive, supportive and positive climate.
- e. Stability and continuity of care – these are also important in creating a safe emotional connection for children. The framework includes a primary caregiver and turnover among staff is not high. Stability of the care staff enables the toddlers to cope better with transfer between home and the care facility and between different activities throughout the day (play, sleep, meals).
- f. Relations between the family and the caregiving staff – the care setting considers the family’s preferences and desires and in planning the curriculum, leaves room for cultural differences. The setting facilitates open and bi-directional communication between the parents and the caregivers, creating the processes that enable it to take place. The framework is sensitive to family changes and tensions that can affect the toddler (moving house, birth of a sibling, etc.).
- g. Staff training and professional development including the general level of education, specialization in early childhood, formal and informal training, guidance after the start of employment and ongoing professional development are associated with higher quality frameworks (Soukakou, Ereky-Stevens, Sylva, Eisenstadt & Mathers, 2014; Weiland & Yoshikawa, 2013; National Institute of Child Health and Development [NICHD] Early Child Care Research Network, 2000; Dearing, McCartney & Taylor, 2009).

The EPPSE study – this British research study determined that despite the positive effect of quality education during early childhood, socioeconomic characteristics are still the best predictor of academic achievement and behavior. Likewise, the mother’s academic degree was found to be a positive predictor of children’s achievements in English (ES=0.76) and mathematics (ES=0.71) at age 11, while the father’s education and academic achievements are

better predictors of academic self-image at age 10 (Sylva, Melhuish, Sammons, Siraj-Blatchford & Taggart, 2008).

Alongside these findings, the research shows that children from disadvantaged homes benefit more from quality preschool education than children with no background of deprivation. The study examined the quality of the education setting using the ECERS-R and found that the effect of participation in high or average quality preschool education continues even after entering school with respect to achievements in math and English (reading) as well as in behavior and social integration. The research also showed that quality preschool education was revealed to be an especially positive influence not only for children from disadvantaged backgrounds, but also for boys and for special needs children.

The findings of the British research attach great importance to structural attributes of quality education frameworks (caregiver-child ratio, training for staff members, etc.):

- Quality education can be found in all types of settings but the highest quality was found in kindergartens that are adjacent to a school (as compared to home-based nurseries) (Karoly, Kilburn & Cannon, 2006)
- A framework with teachers trained for the job and who have higher competencies is a quality setting
- Effective pedagogy includes interaction associated with traditional teaching (Karoly, Kilburn & Cannon, 2006)
- Training of the caregiver staff is associated with higher quality facilities. Quality settings have primary caregivers with higher education as opposed to primary caregivers without higher education in lower quality settings. With reference to programs that include home visits and parent training, the research shows an advantage to having the visits conducted by a nurse as compared to non-professional staff.
- Quality preschool education provides “protection” against less effective school education. Combining quality early childhood education with quality school education has a positive effect on cognitive development, and especially in mathematics (Sammons, Sylva, Melhuish, Siraj-Blatchford, Taggart, Grabbe & Barreau, 2007)
- Children who participated in low quality or non-effective early childhood education did not benefit from better results in school. They exhibited better behavior but suffered more from hyperactivity (Sammons, Sylva, Melhuish, Siraj-Blatchford, Taggart, Grabbe & Barreau, 2007)

In contrast to the conclusions of the British study, in the evaluation research concerning Head Start, no effect was found with reference to the quality of services on student achievement. The study examined the extent to which quality of service during early childhood affects children's development. The study examined three criteria:

1. Structural variables – the physical resources or characteristics of the program – measured by the Early Childhood Environment Rating Scale (ECERS) (the same evaluation scale used in the EPPSE).
2. Process variables – interactions between the teacher and child, examined using eight criteria from the ECERS and an additional 23 criteria from the Arnett Caregiver Interaction Scale
3. The curriculum (another type of structural variable) – exposure to academic activities in the classroom (familiarity with letters and sounds, arithmetic games, asking children to tell a story, etc.).

The quality of the framework was not found to have an effect on children's development - except in the case of three year olds where participating in a program with a low level of exposure to academic activities was associated with better short-term behavior relative to programs with greater exposure to academic activities. In any case, according to the research, there is no evidence that exposure to a high quality program on every dimension leads to outcomes that endure until third grade (Puma et al., 2012). One of the possible explanations for this finding is that the minimum standard for operating a program within the HS framework is sufficiently high so that it does not leave enough of a difference between the different programs. Hence, the HS program's standards relate to a caregiver-child ratio of 1:4 and a maximum group size of eight children, and that the program staff must participate in a one-year training program. These criteria can explain the small influence of structural quality on achievement in the HS study.

Another study found a correlation between the quality of the framework and (not only) cognitive attainments but also between the quality of the framework and the children's social abilities. The study, which was conducted with the participation of 155 four and five year old children, found that early entry into low quality preschool is linked to lower social skills for six-year olds, however, early entry combined with quality education is associated with higher social abilities (Hausfather, Toharia LaRoche & Engelsmann, 1997).

The Families, Children and Child Care study (FCCC) – this research was conducted in the U.K. and followed 1,201 children in Oxford and London from birth to 18 months. The study found that socioeconomic status and maternal care are the best predictors of children's achievements in all

areas. The quality of daycare was found to be related to children's cognitive achievements. The study's findings assign great importance to process quality and determine that the most significant characteristic associated with the daycare center's quality is the language used by the care staff in their interaction with the toddler. Reaction to speech, asking questions, praise, and addressing children in a positive way were found to be the best predictors of developmental improvements (Sylva, Stein, Leach, Barne & Malmberg, 2011).

The Chicago School Readiness Project (CSRP) is another study that attaches great importance to process quality. The study, which examined the effect of the intervention program designed to improve readiness for first grade among children from poor families, found that intervention contributed to development of language and math skills among children participating in the program. It was found that the quality of the relationship (interaction) between the teachers and the children mediated the effect of the intervention on participants' self-regulation. It was also found that the relationships between the teachers and the children and the level of self-regulation influenced the children's behavior and their pre-academic achievements (Raver, Jones, Li-Grining, Zhai, Bub & Pressler, 2013).

The study concluded that intervention possessing a number of components – CSRP-oriented teachers and classroom – sets a process in motion that begins with positive relations between the teacher and the student, accompanied by emotional support, which lead to an improvement in the children's ability to self-regulate, which in turn, supports their improved behavior in the classroom as well as academic achievement.

Another study cross-referenced the data from three studies in order to check the influence of education quality at ages 0-3 on achievement. The study was based on data from the Australian Sydney Family Development project and data from the Haifa Study merged with data from the NICHD and from the Early Head Start program. It was found that a low caregiver-child ratio was positively related to a secure emotional connection to the mother while a high ratio was found to be negatively correlated with a secure connection to the mother. The research further concluded that the (high) quality of the daycare center was positively correlated with the children's achievements (Love et al., 2003).

In summary, the research shows that in the **short term**, the quality of the 0-3 framework does not have a strong positive impact on cognitive development and linguistic development for most children. In other words, for children from normative families, education in the home and SES have a stronger influence than education in a formal framework. For children from a *disadvantaged background*, quality education provided in the first three years of life can

contribute to social, linguistic and cognitive development. The research also shows that low quality education does not lead to any improvement or have a negative effect for disadvantaged children however, for children in general, low quality education can cause language deficits or impair cognitive development. On the other hand, from age three onward, children from disadvantaged populations especially benefit from quality education. It was also found that disadvantaged children benefit more from intervention programs that take place in heterogeneous population groups, as compared to homogeneous groups that include only disadvantaged children (Melhuish, 2004).

#### 1.4 Negative Effects of Intervention Programs in Education Settings

Alongside the cognitive benefit, there is research evidence that early childhood education frameworks may also have negative effects. A study that examined early childhood education programs designed to promote readiness for first grade relied on data from the Early Childhood Longitudinal Study and found that the programs improved reading abilities and math abilities at the time of entrance into first grade but at the same time, increased behavior problems and reduced the children's level of self-regulation. The positive influence on the students' achievements disappeared by the end of the first year of school while the negative effects on the students' behavior did not dissipate. At the same time, the research found that the main beneficiaries of education at young ages are children from disadvantaged families and children who attend a low level school (Magnuson, Ruhm & Waldfogel, 2007). The EPPSE study found a similar effect of early childhood education on behavior. The study found that children who participated in early childhood education enter school with better cognitive abilities along with better social skills but with behavior problems (Waldfogel, 2004).

The NICHD report presents even more definitive conclusions concerning the negative effect of education for ages 0-3. The report argues that the longer the child spends in non-maternal care, regardless of the type, the greater the chance the child will have behavior problems, irrespective of the setting's quality and other factors (Love et al., 2003). In addition, Melhuish found that maternal employment and non-home based care during the first year of life has a negative effect on social and cognitive development (Melhuish, 2004). In contrast to these studies, there are others that point to a positive correlation between early childhood education and social skills (Campbell, Lamb & Hwang, 2000).

### 1.5 Attending Education Frameworks before Age Two

The EPPSE study – one of the questions examined by this research was whether and how the age of entrance into a preschool education setting – that is, entering an education setting at age two as opposed to entering an education setting at age three – has any effect on different groups of students, particularly on children from socioeconomically disadvantaged backgrounds. Age of entrance into the education framework was not found to affect math achievements in first grade for any group of children. With respect to English, starting preschool education at age two was found to have a positive, though low, correlation ( $ES=0.19$ ) among children with multiple disadvantages.

The research also found that starting preschool education at age two has a negative effect on behavior, that is, it predicts poor “pro-social” behavior, although only for children of families with no income (unemployed parents). Aside from this, the research shows that attending an education framework at an early age has no influence on social behavior (Sammons, Sylva, Melhuish, Siraj-Blatchford, Taggart, Grabbe & Barreau, 2007).

### 1.6 The Influence of Length of Day in the Education Framework

The studies that were reviewed found that remaining a full day in the education setting does not contribute more to the child’s development than spending more limited hours (half a day) in the setting (Melhuish, 2004). One of the insights from the EPPSE study was that while the optimal number of hours for an early childhood education program cannot be definitively concluded, there is a point, after a certain number of hours, where the returns diminish (Karoly, Kilburn & Cannon, 2006). Another study that was based on the NICHD Study of Early Child Care and Youth Development database examined the relationship between the quality of parenting and readiness for first grade for children who spend different amounts of time in education settings. The research found an advantage for parents who interacted well with their children when these children spent a moderate number of hours in the education facility, as compared to children who spent many hours in the setting (though similar to the effect for children whose main care was provided by their parents) (Adi-Japha & Klein, 2009).

### 1.7 Intervention Programs that Emphasize Working with the Parents

The research literature shows that the family’s SES characteristics and a supportive home learning environment are the best predictors of the child’s achievement. The EPPSE study shows that a supportive home learning environment during early childhood (parents who relate

to learning as a means of advancing in life, are supportive of learning, and have high parental expectations) helps children from disadvantaged families succeed “against all odds” (Sylva, Melhuish, Sammons, Siraj-Blatchford & Taggart, 2008). A study that followed the EHS program reached similar conclusions. The study found a correlation between children’s achievements at age three and parental behavior when the children were two years of age. Better cognitive achievements at age three are related to better parental support during play and a richer literacy environment at age two. Similarly, lower level of aggressive behavior at age three is connected to warmth, calm and a lower level of parental violence at age two (Love et al., 2002).

At the same time, the research literature is not conclusive with respect to the influence of intervention programs that focus on working with the parents and improving the home learning environment. Furstenberg’s comprehensive literature review, which was published within the framework of the Whither Opportunity research project, examined tens of studies in the field and concluded that it is difficult to specify causal relationships between intervention programs for the family and academic achievement. According to Furstenberg, this can be explained by three characteristics of such intervention programs. First, by the target audience of home-centered intervention programs, which is generally the most disadvantaged families. Second, by the intervention program’s characteristics themselves and in the scarcity of programs that are both comprehensive and operate over the long term. Third, there are few programs that work with both parents in the aim of improving family practices and children’s achievements (Furstenberg, 2011). In the review, Furstenberg also distinguishes between three main models of intervention: parent training programs, school readiness programs and programs that concentrate on improving the parents’ economic resources. Furstenberg’s findings indicate that at this stage, no causal relationships have been found between children’s improved achievements and the programs in which their parents participated.

At the same time, research that compared programs that offered only a framework-based intervention program, only a home-focused intervention program, and a program that combined the two, found that children reached the highest achievements through the combined program. Thus, findings of studies that followed the EHS program showed that intervention in the daycare center alone is linked to developmental attainments, a decrease in negative aspects of socio-emotional development, and a certain positive influence, although the influence on the perception of self-efficacy is minor. The home-based program was found to be related to linguistic development at age two but not age three. There was a positive influence related to parental involvement in semi-structured play at age three and participating parents reported

fewer tensions and pressures, as compared to the control group. The program that combined intervention in the home with intervention in the education facility had the best results with respect to toddlers' cognitive development as well as their socio-emotional development (Love et al., 2002).

Another evaluation study whose findings indicate the advantage of combining intervention in the home with intervention in the education framework is Project CARE. The study, which began in 1978, followed 83 African-American children from low-income families. Intervention programs were run from age three months until age four. The research distinguished between one intervention group that combined optimal full-day care in an education setting with home visits and a second group that received only home visits, and a third group which served as the control group (an RCT study). Throughout the entire period, the three groups underwent developmental tests and intelligence tests. Members of the first group, which combined intervention in the education setting with home visits, achieved the best results, expressed in the participants' improved achievement over the short term, although the disparities between the groups decreased with time (Wasik, Ramey, Bryant & Sparling, 1990).

There is a diverse range of intervention programs for parents and children during early childhood. One of the oldest is the HaEtgar program (Hebrew acronym for Guidance for Mothers and Fathers – an early childhood program) developed in 1967 by the Research Institute for Innovation in Education at the Hebrew University of Jerusalem, and disseminated internationally under the name of HIPPY (Home Instruction for Parents of Preschool Youngsters). Today, the program operates in 21 U.S. states and in another 12 countries. The program is run in disadvantaged communities, mostly immigrant communities, and within the framework of the program, a representative from the community being served trains the parents, with emphasis on readiness for first grade. Despite the fact that the program has been in operation in Israel for several decades, no RCT evaluation study or longitudinal study examining its long-term impact has been conducted.

Evaluation studies of the program in the U.S. have not included a broad sample of participants and were not RCT studies and therefore, despite their positive results, described below, the questions raised regarding programs of this kind are relevant in this case as well. One evaluation study of the HIPPY program examined the effect of an intervention program that worked with 54 disadvantaged parents of three and four year old children, as compared to a control group of parents with a similar SES background who were on the program's waiting list but did not participate. The study found that among parents who participated in the program, the

home environment was richer and parents felt a greater sense of self-efficacy. A follow-up in third grade of the children who participated in the program found that these children attained higher achievements in math (Nievar et al., 2011). Another study that examined HIPPI's influence found that mothers who participated in the program increased educational activities with their children at the end of the year. Ahead of entrance into first grade, 84.8% of the participating children were designated by their kindergarten teachers as ready for first grade. In comparison to the control group, more children attended a preschool education framework, were typified by a higher rate of attendance in kindergarten, and a higher proportion went directly into first grade. Similarly, in third grade, children who had participated in the program attained higher achievement on standardized math tests (Johnson, Martinez-Cantu, Jacobson & Weir, 2012).

### 1.8 Economic Benefits

In general, investment in early childhood intervention programs is economically efficient and many studies attempt to calculate the cost-benefit ratio of early childhood intervention programs. One oft-cited datum is a cost-benefit of 1:7 (Young, 1996; Melhuish, 2004). In practice, different studies point to different results in this regard. An economic analysis conducted by the Nobel Prize-winning economist James Heckman examined the cost-benefit of several early childhood intervention programs that were run during the 1960s and 1970s. Heckman's analysis of the Perry Preschool Study indicated a cost-benefit of 1:2; this benefit stems from a reduction in the number of imprisonments for the participants, lesser dependence on welfare allowances and higher income. There are those who qualified this result and argued that the calculation did not take into account the health benefit of the program and the benefit for the parents and consequently, the program's cost-benefit is higher. A similar analysis of the Abecedarian Project indicated that the program participants were more likely to earn higher incomes compared to peers who did not participate in the program, their mothers were also more likely to earn higher incomes, the participants had a lower chance of attending special education settings and even had a lower probability of smoking (37% in the treatment group vs. 55% in the control group) (Heckman, 2012; Heckman & Masterov, 2004; Heckman, Stixrud & Urzua, 2006).

## 2. Education Policy for Ages Birth to Three in Israel and its Contribution to Reducing Inequality

### 2.1 Education Policy for Ages Birth to Three in Israel from a Comparative Perspective

The fertility level in Israel is among the highest in the OECD countries (OECD Family Database, 2014). There are 500,000 children aged birth to three years in Israel (Central Bureau of Statistics data, 2015). Of those 500,000 children, approximately 28.5% live below the poverty level and as a result, Israel is located at the top of the child poverty chart in OECD countries (OECD Poverty Rate Data, 2011).<sup>6</sup> About 38,000 children aged 0-3 are designated by the welfare authorities as at-risk children, about half of them due to reasons that are not necessarily connected to poverty (National Council for the Child, 2014).<sup>7</sup>

The Ministry of Economy<sup>8</sup> is responsible for age 0-3 frameworks in the capacity of its responsibility for encouraging women's employment. In the Ministry's view, daycare centers are primarily a tool that supports women in the workforce. In this respect, the Ministry acts by sharing in funding the construction of daycare centers (with the local authority being responsible for construction), by subsidizing tuition for those entitled,<sup>9</sup> in determining standards for operating centers for toddlers and by supervising recognized daycare centers.<sup>10</sup> 116,269 toddlers attend daycare centers and home-based nurseries supervised by the Ministry of Economy (Weissblei, 2015). The Ministry's annual support budget for subsidizing daycare centers and home-based nurseries was 1,330,461,000 NIS in 2015, which represents about 42% of the Ministry of Economy's budget.<sup>11,12</sup>

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<sup>6</sup> Israel is in fourth place among OECD countries (following Chile, Turkey, and the United States) in level of income inequality (Gini Index).

<sup>7</sup> About 110,800 children aged birth to six years are defined as being at risk. In general, there is difficulty in identifying at-risk infants and toddlers and hence, in this age group, there is a relatively low rate of toddlers, as compared to other age groups (Rabinovich, 2015).

<sup>8</sup> The Ministry of Economy (established in 2013) is a reincarnation of the Ministry of Industry, Trade and Labor (established 2003). Previously, responsibility for daycare centers belonged to the Ministry of Labor and Welfare (established 1977) and prior to that, was in the hands of the Ministry of Welfare.

<sup>9</sup> Tuition subsidization is determined by ranking eligibility. The scope of mother's employment (full-time or part-time) and the family's per capita income determine the rank of eligibility. The lower the child's ranking the higher the subsidy to which he is entitled (Ministry of Industry, Trade and Labor, 2012).

<sup>10</sup> Recognized daycare centers are those that have entered into a voluntary agreement with the Ministry of Economy. According to the agreement, the operating organizations accept the Ministry's supervision and are thus obligated to the tuition set by the Ministry, and the children attending the center are eligible for subsidies with reference to their family's average per capita income.

<sup>11</sup> In 2014, the Ministry of Economy's budget was 3,116,651,000 NIS.

<sup>12</sup> In recent years, the Daycare Centers and Home-based Nurseries Division did not take full advantage of the available budget.

Since there is no licensing requirement for facilities for 0-3 year olds, data do not exist about the number of private daycare centers and family nurseries in Israel. A report of the Committee on Socioeconomic Change (hereafter, the Trajtenberg Committee) estimated that they cover about 25% of children (Committee on Socioeconomic Change, 2011). Only about 17,000 of the children in daycare centers were referred by the welfare services (Weissblei, 2015).

Alongside the Ministry of Economy, the Ministry of Social Affairs and Social Services leads and integrates the “Good Start” program as part of the National Program for Children and Youth At-Risk. The program provides help for at-risk children, mainly through outsourcing, and not through direct provision, of services. The “Good Start” platform operates programs in which 21,367 at-risk children, aged 0 to 6, participate (only 19% of all children designated as at risk by the welfare authorities) as well as 11,469 parents (Rabinovich, 2015).

The following section presents the standards relevant to daycare centers in Israel from a comparative perspective and will show that the policy for early education frameworks and their structural quality do not support the reduction of inequality.

### 2.1.1 Legislative Arrangements and Supervision of Early Childhood Frameworks

During the past two decades many countries have legislated the area of early childhood education including Britain<sup>13</sup>, the state of New York<sup>14</sup>, Australia<sup>15</sup>, South Korea<sup>16</sup>, Denmark<sup>17</sup>, Sweden<sup>18</sup>, Germany<sup>19</sup> and the Netherlands<sup>20</sup>. Legislation focused on imposing a licensing and supervision obligation on all frameworks. These laws made all early childhood facilities subject to (under varying conditions) licensing and supervision, requiring meeting minimal standards as a condition for operating educational settings for toddlers.

In Israel, there is no licensing and supervision requirement for facilities for 0-3 year olds. The Daycare Center Supervision Law of 1965 imposes licensing and supervision requirements for 0-3 frameworks but like the amendments to the law, these are not enforced. The Ministry supervises daycare centers run by operators that have signed a voluntary agreement. These daycare centers are operated by non-profit organizations, for-profit organizations and local

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<sup>13</sup> Care Standards Act, 2000

<sup>14</sup> Social Services Law (SSL), as Amended by Laws of 2010, sec. 390

<sup>15</sup> The Education and Care Services National Law Act, 2010

<sup>16</sup> The Early Childhood Education Promotion Act (2001), child care centers function under the Child Care Act (2001)

<sup>17</sup> Social Services Act 1999 (Lovom)

<sup>18</sup> The Education Act, 628/1998, Sec. 1, 4, 7

<sup>19</sup> Tagesbetreuungsbaugesetz (TAG)

<sup>20</sup> The Dutch Childcare Act, 2005

authorities. In addition, there are home-based nurseries recognized by the Ministry of Economy and supervised by the local authorities. A recognized daycare center (one that is certified) or a recognized home-based nursery are required to meet standards determined by the Ministry with respect to group size and caregiver-child ratio, etc. and are also subject to the Ministry's supervision on issues of safety and tuition. In Israel, there is no 0-3 curriculum. Children who attend recognized daycare centers are eligible for tuition subsidies according to criteria set by the Ministry. Government supervision does not apply to private kindergartens and home-based nurseries.<sup>21</sup>

Attempts to regulate the field and to enact a new law that would impose a licensing and supervision requirement for all frameworks failed, as seen in the last attempt of the proposed bill, Supervision of Daycare Centers for Toddlers, 2010. That is, according to estimates of the Trajtenberg Committee, about half of early childhood settings operate without a license and are not supervised by the state for safety and hygiene and are not obligated to meet standards for proper operation (Committee for Socioeconomic Change, 2011). In exceptional cases, the Ministry acts within its authority under the law and closes settings about which they have received severe complaints, as was the case in the facilities for children of immigrant workers and refugees (personal communication, March 3, 2013); however, in most cases, centers in which children spend time in the worst possible conditions operate without supervision and do not meet minimal standards. In other words, about 25% of children are educated in facilities about which nothing regarding their conditions is known, including the staff's level of education, the level of safety and the pedagogic level. Needless to say, these settings cannot support narrowing gaps and improving development and achievement for children from disadvantaged homes.

The system in Israel, with respect to responsibility for early childhood, is split. Government responsibility for early childhood frameworks in Israel is split between the Ministry of Economy and the Ministry of Education. Due to this split in ministerial responsibility, the difference in policy between two age groups is almost dichotomous. There are other countries in which there is a similar division in government responsibility for two age groups including in Belgium, France, Italy, and the U.S., however, in contrast to Israel, in these countries responsibility for ages 0-3 is generally under the Ministry of Health or the Ministry for Social Services (European Parliament, 2013). During the past two decades, there has been a trend to transition from

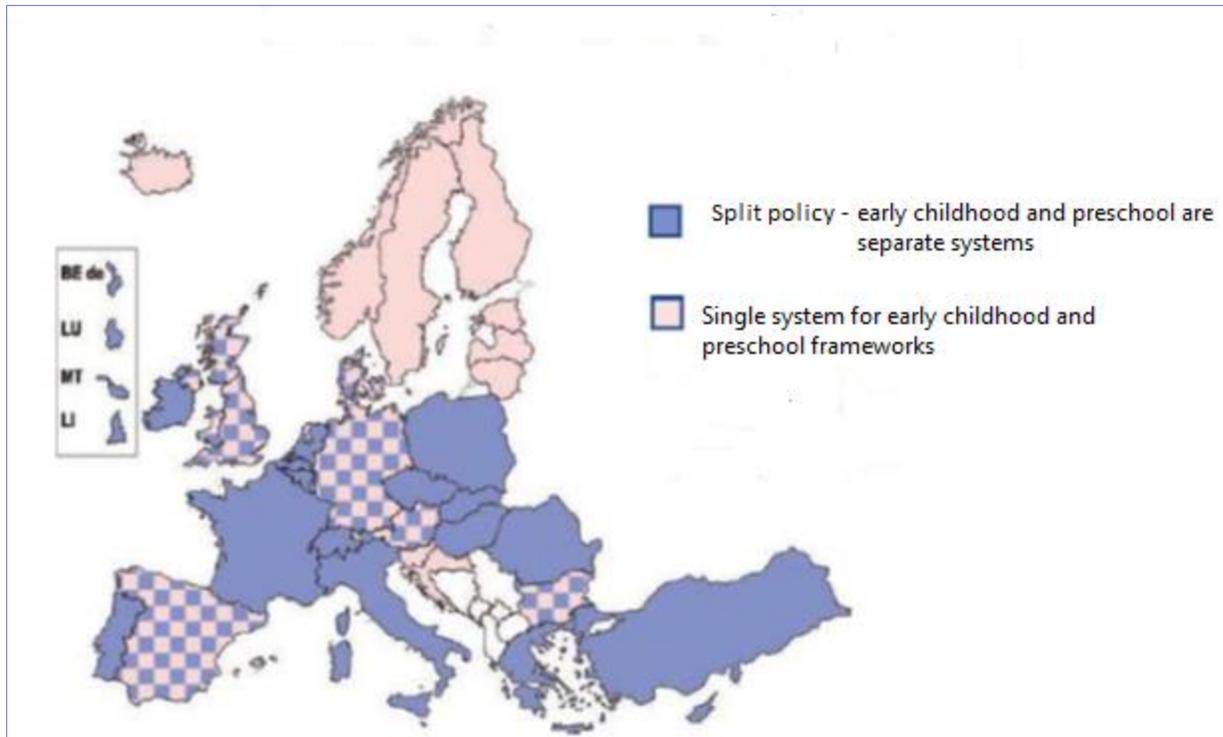
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<sup>21</sup> Officially, the local authority's supervision applies to these frameworks since they require a commercial license, in practice however, most local authorities do not enforce this requirement and most frameworks operate without permission or supervision. In any case, even in cases where the supervision applies, it is not pedagogic supervision.

divided systems to consolidated systems for early childhood. Among the countries that have made this change are Britain, Sweden, Slovenia, New Zealand, and Brazil. A UNESCO study found that in countries that transitioned to a single system, there was a rise in the level of services provided to 0-3 year old children with reference to the caregiver staff's training requirements and professional development (Kaga, Bennet & Moss, 2010). The OECD also indicates that consolidated systems simplify the coordination of different services and support the attainment of goals (the organization, however, stops short of explicitly recommending it) (OECD, 2012). The UNESCO study examined the transition from split systems to a unified system in five countries and found that the transition had positive outcomes for children under age three and for the caregiver staff:

- The caregiver staff's level of professionalism rose and was similar to that required of staff in preschools (ages three and above)
- Unified systems are identified with a pedagogical approach to education for ages 0-3 and with the development of appropriate content (curricula)
- Unified systems create an education continuum and fewer "transitions" for children (Kaga, Bennet & Moss, 2010)

Figure 1 – Organization of Early Childhood and Care Frameworks in Europe



Source: Volansky, Sela and Asher, 2015

Throughout the years, several attempts were made to transfer ministerial responsibility for daycare centers to the Ministry of Education and to thus strengthen the pedagogic aspect of daycare centers over the employment perspective. Among these attempts there were the report of the Committee on Standards for Daycare Centers (1987), the report of the Standards Committee for the Operation of Education Frameworks for Infants (2007) – both these committees were headed by Professor Miriam Rosenthal, the report of the Committee on Socioeconomic Change (2011) (the Trajtenberg Committee), and the report of the War on Poverty Committee (2014) (the Alalouf Committee). These attempts did not succeed and ministerial responsibility for daycare centers remains in the Ministry of Economy.

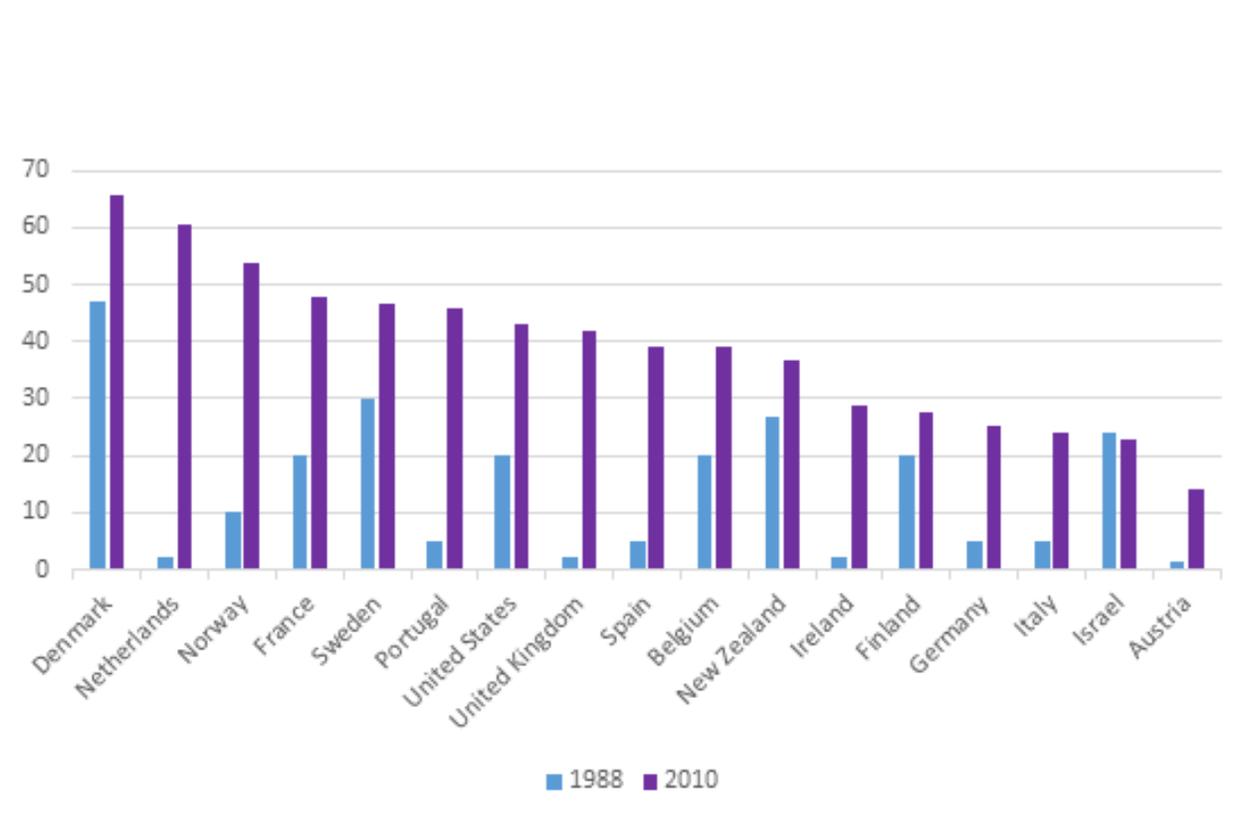
### 2.1.2 Access to Settings for Ages Birth to Three Years

In recent years, many OECD countries expanded access to education services for children aged birth to three years. Several of these countries provided a universal right to access education services for children aged 0 to 3. Among them were Denmark, which is committed to education services from age 26 weeks (with parents contributing 25% of the cost), Sweden, where children are entitled to 15 hours per week in an education framework from the age of one year, as is the case in Germany (European Commission, 2014). Other countries partially fund

early childhood services for children from disadvantaged families and among them, the U.S. (through the Early Head Start program) and the U.K. where tuition for an education framework is funded for 40% of the most disadvantaged children (Puma, 2012; Ben-Galim, 2014).

Since the beginning of the 1990s, the percentage of age 0-3 children attending formal frameworks in most of the OECD countries has risen significantly. The percentage of children attending formal early education facilities in Israel, which in 1988 was third behind Denmark and Sweden, has remained unchanged for two decades, as the figure below shows.

Figure 2 – Percentage of Children Aged 0-3 in OECD Countries Attending Recognized Frameworks: 1988 and 2008



Sources: OECD Family Database, 2015; Gauthier, 1999; data for Israel 1988, Fichtelberg-Bermatz, 2004; data for Israel 2010, Weissblei, 2015; data for U.S. 1987, Kamerman, 1991

The percentage of children attending formal education settings, which has remained unchanged for 20 years, reflects the failure of the policy in Israel to apply the Licensing and Supervision Law to all the early childhood education frameworks and has left many facilities unlicensed. The perspective of access to supervised services again indicates the low proportion of children that have access to supervised services as well as the degree to which Israel lags behind most of the OECD countries.

## 2.2 Quality of Early Childhood Frameworks

As the previous chapter described, quality services were found to contribute to improving the achievements of children from disadvantaged families (Waldfoegel, 2004; Magnuson, Ruhm & Waldfoegel, 2007; Solheim, Wichstrøm, Belsky & Berg-Nielsen, 2013). Israel lags behind most OECD countries with respect to the standard of customary care from the standpoint of curriculum, pedagogic supervision, group size, and caregiver-child ratio.

### 2.2.1 Curriculum

As part of the change made in policy on early childhood education, many countries adopted an early childhood curriculum. Generally speaking, curricula for ages 0-3 are not structured in the way school curricula are and they focus on how the teaching staff works and communicates with the children, with the understanding that at these ages, children learn and develop through play and through interaction with the caregiver staff. Among the countries that adopted a 0-3 curriculum are Britain, Denmark, Finland, Germany and Spain (OECD, 2011).

The supervision methods of different countries over implementation of the curriculum and regulatory standards is divided between countries that advocate external oversight conducted by a local or government authority (Hungary, the Flemish Community in Belgium, Britain, New Zealand, Italy, Scotland, Germany, Netherlands and Spain), internal evaluation conducted by the operating organization (Sweden, Estonia and Slovenia), and a combination of the two (Ireland, Portugal, Denmark, Finland, Mexico, Japan, Korea, Czech Republic, Slovakia, Australia and Poland) (OECD, 2012).

In Israel, there is no curriculum for the 0-3 age group. Similarly, the oversight of daycare centers provided by the Ministry of Economy, does not include a pedagogic supervisory component, as emerges from the remarks of one of the Ministry managers:

There is currently no pedagogic supervision of, what are referred to as, formal daycare centers. To date, there is holistic supervision that examines [...] all the daycare center indicators including [...] hygiene, safety, nutrition, and quality of care and physical structure. Structure is also related to safety. The subject of quality of care or the pedagogic element was never something exclusive or formal that was checked by the division's supervisors (personal communication, March 3, 2013).

At present, the curriculum for day care centers is set by the operating body. The curriculum is frequently set separately by the staff of each daycare center (personal communication, February 3, 2013). Different attempts throughout the years to define a curriculum for the 0-3 age group, as was done within the framework of the "Standards Committee for the Operation of Education Frameworks for Infants" (hereinafter, the Rosenthal Committee) did not come to fruition (Standards for Operating Education Settings for Infants, 2009).

In its basket of inputs (from where daycare center tuition is derived) the Ministry of Economy allots funds for daycare centers' internal supervision; it however, does not supervise or check how and to what degree the organizations engage in processes of internal supervision and evaluation for their facility.

### 2.2.2 Supervision of Caregiver Staff Quality

In the literature, one of the criteria found to correlate with quality of care and children's achievements is the quality of the caregiver staff. Educational levels required of the staff change from one country to another but in most countries, there is no academic education requirement for teachers in age 0-3 facilities, but rather a certificate is required (OECD Family Database, 2010).

In Israel, audits conducted by the Daycare Centers and Home-based Nurseries Division indicated difficulty in meeting the personnel standards set by the Ministry. Between 2006 and 2007, a census was carried out which examined the characteristics of the staff working at early childhood daycare centers. The census included all the daycare centers in operation during those years. From the census findings, it emerged that 53.6% of daycare center directors met or approached the required standards. The report found that the education level of directors that did not meet the standard was particularly low: 44.9% of directors did not take a course in operating daycare centers, as required. With respect to professional development, it was found that 73.2% of Jewish daycare centers and 68.8% of Arab daycare centers held in-service education training for the caregiver staff (although the survey did not check the course content and their level). Likewise, the survey did not check the educational level and training of the caregiver staff (Fried, Harris & Fichtelberg-Bermatz, 2009; Fried, 2008).

Most caregivers in daycare centers begin work with no training. They take a basic training course while working ("Class 1-Caregiver Course"); the course is generally given by the organization operating the daycare center. Caregivers interested in doing so have the right to take an additional training course ("Class 2-Caregiver Course") which entitles them to a modest increase in salary (personal communication, February 7, 2013). From interviews conducted with officials at daycare centers, it emerged that there is a problem of high staff turnover (a problem that also exists in other countries, as an examination of the subject by the OECD revealed – OECD, 2011), however, there are no data regarding the rate of caregiver turnover or regarding the average number of years of seniority for caregivers at the centers. Thus, one of the largest and oldest daycare center operators (WIZO) reported that just 10%-15% of their employees remain in the position after three years (Hasisi, 2014). It is not surprising then, that data concerning the turnover rate, caregiver and teacher training and professional development in private daycare and home-based nurseries do not exist.

Consequently, caregiver training, their professional development and persistence at work do not constitute the appropriate conditions of quality care for children aged 0-3 and do not meet the

conditions, cited in the literature, associated with improved achievements and narrowing of disparities.

### 2.2.3 Group Size and Caregiver-Child Ratio

OECD countries differ from one another with respect to their standards for group size and caregiver-child ratio. Group size has been found to represent a significant variable for the quality of care in education settings, as is the ratio of caregivers to children (Sagi et al., 2002). Different countries choose different standards. In Britain, there are no limits to group size while the ratio of caregivers to children up to age two is 1:3. In Finland, there is also no limit on group size and the caregiver-child ratio up to age three is 1:4 (European Commission, 2014). In Israel, the standard set by the Ministry of Economy defines 1:6 as the standard for up to 18 months in a group size of up to 15 (Ministry of Industry, Trade and Labor, 2012).

In 2008, the Ministry of Industry, Trade and Labor (as the Ministry of Economy was then known) conducted a census of daycare centers that examined degree of daycare center capacity. The census found that in urban localities, daycare centers are more crowded than in rural localities and more crowded than the standard allows. It was found that the number of children was 42.7% higher than the standard for infants, 31.7% higher than standard for toddler groups, and 40.3% higher than for children's groups. The highest degree of crowding was found in urban daycare centers in 1-3 SES-level areas, the lowest SES clusters. The lowest degree of crowding was in daycare centers where most of the children were Arab (Fichtelberg-Bermatz, 2010). In 2011, the Ministry of Industry, Trade and Labor, with the publication of its "Exceeding Capacity Procedure," gave its legal stamp of approval to exceed the number of children permitted by the standard for daycare centers (personal communication, February 17, 2013). Thus, the low structural quality of daycare centers in Israel today is not in line with standards required in order to support children's development.

Throughout the years, there were a number of attempts to improve the quality of early childhood frameworks. One of the most prominent was the Rosenthal Committee report, mentioned above. The report included standards for the daycare center's physical environment including the yard, equipment and structure, educational standards, training, professional development and employment conditions for the daycare staff, standards for group size and caregiver-child ratio, standards for the work of education-care, and health and safety standards. The Ministry of Economy adopted the report's standards and the recommendation for their implementation appeared even prior to their official publication in the "Socioeconomic Agenda for Israel 2008-2010," authored by the National Economic Council and which was also accepted by Prime

Minister Benjamin Netanyahu (National Economic Council, 2007) (personal communication, February 17, 2013; State Comptroller, 2011; personal communication, June 3, 2013).

It is interesting to observe that in the 1960s and 1970s, the structural quality of daycare centers was better than it is today and has, along the years, increasingly declined. The damage to daycare standards took place mainly during periods of rampant inflation when parents protested the frequent increases in tuition. The decision to impinge on the structural integrity of daycare centers in order not to raise costs (to ensure access) was also expressed in the decision to reduce the age at which an infant, cared for in a group of babies with better standards, is defined as a toddler, cared for under standards that are not as favorable, as shown in Table 1 below (the Committee to Examine the Assumptions that Serve as the Basis for Setting Daycare Center Costs – the Shetreet Committee, 1986). With reference to training daycare personnel, there has also been a certain deterioration, since at the beginning of the road, daycare centers employed women who were trained as nurses' aides and had medical and care training (personal communication, June 3, 2013).

Table 1 – Group Size and Caregiver-Child Ratio in Daycare Centers, 1965-2011

<b>Age of Child (in</b>	<b><u>1965</u></b>	<b><u>1974</u> Ministry of</b>	<b><u>1980</u></b>	<b><u>1985</u> Shetreet</b>	<b><u>1987</u> Rosenthal</b>	<b><u>2009</u> Rosenthal</b>	<b><u>2011</u> Following</b>	<b>NAEYC Recom</b>
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months)	Education Daycare	C'tee Recommendations	C'tee Recommendations – not implemented	C'tee Recommendations – not implemented	C'tee Recommendations – not implemented	Improvement of Standards	mendations	
Infants 3-15	2:10 (3-18 months)	Up to 6 infants per group (3-18 months)	2:14 (3-18 months)	2:15	2:10	2:8	2.5:15	<b>2:8</b>
Toddlers 16-24	2:14	Up to 12 toddlers per group (18-24 months)	2:20	2:22	2:14 (19-30 months)	2:10	2.55:23	<b>3:12</b>
Toddlers 25-35	2:25	Up to 24 children per group	2:25	2:27		2:12	2.45:27	<b>2:12 or 2:16 for 30-48 months</b>
36 & up	2:35		2:35	2:35	2:18 (31-42 months)	3:18	2:35	<b>2:16</b>

Source: Daycare Center Supervision Law of 1965, Ministry of Education and Sport, 1974, p. 2; Committee to Examine Assumptions that Serve as the Basis for Setting Daycare Center Costs (Shetreet Committee, 1986); Report of the Daycare Center Standards Committee, 1987, p. 9; Standards for Operating Toddler Education Frameworks, 2009, p. 33; Final Recommendations of the Pricing Committee for Daycare Center Rates, 2012, p. 4

Despite the relatively low structural quality, toddlers in Israel lead with the most number of hours spent in education frameworks, which stands at 51 hours weekly. This, despite the fact that researchers attach negative influences of spending great amounts of time in an early childhood education facility, particularly when the setting is of low quality (Vandell et al., 2010; McCartney et al., 2010). Table 2, below, presents the average number of hours spent in education frameworks in Israel, as compared to other countries.

Table 2 – Number of Hours Spent in Settings outside the Home in OECD Countries, Ages 0-3

Country	Average Number of Hours Weekly	Country	Average Number of Hours Weekly
Czech Republic	16	Hungary	30
Britain	16	France	31
Australia	18	United States	31
Austria	19	Norway	32
Netherlands	19	Canada	32
New Zealand	20	Sweden	33
Germany	23	Denmark	34
Ireland	25	Finland	34
Spain	28	Poland	34
Belgium	29	Estonia	37
Slovakia	29	Portugal	38
Greece	30	Israel	51
Luxembourg	30		

Source: OECD Family Database, 2008

### 2.3 Funding Policy for Daycare Centers in the Service of Inequality

During the past decade, Ministry of Economy funding for daycare centers and home-based nurseries has more than doubled (see Appendix 4). At the same time, the expanded budget was not directed towards narrowing gaps:

*A. Conditions for admission to subsidized daycare give priority to children of working mothers over children at risk*

The policy of subsidizing daycare benefits children of working mothers and prefers them over at-risk children. A study that examined the extent daycare policy supports women's employment found that the variable that has the most impact on women's participation in the workforce is the woman's level of education, and that the cost of the children's care settings and her spouse's income are only marginally influential. The study also found that subsidized daycare centers mainly benefit women who would have gone out to work in any case. Such families have a higher per capita income than families in which the woman does not go out to work and as a result, the subsidy leads to widening the income gap. Additionally, the method used for calculating daycare tuition does not encourage women of lower education and income levels to

participate in the workforce and does not promote part-time employment and hence, does not act as a catalyst for employment (Ish-Shalom, 2000).

### *B. Absence of supervision over subsidy funds*

As mentioned, the Ministry of Economy subsidizes tuition for eligible children. The Ministry sets a lower tuition and transfers the balance to the organization running the center. Tuition at recognized daycare centers is determined by using the “basket of inputs,” which reflects the cost components of a child’s attendance at the center and includes the caregiver staff’s salaries, food for the children, the center’s maintenance expenses, equipment, and administration costs. In practice, however, the state does not enforce the basket of inputs and the Ministry does not ensure that the various components of the input basket are being used for the purposes they were allocated. In practice, the absence of supervision of how the subsidy monies are used created a situation in which running a daycare center at full capacity represents a source of income for the operating organization (personal communication, June 15, 2014; Protocol No. 10 of the Children’s Rights Committee meeting, 2003). The clause which produces the greatest revenue for the operators is the caregivers’ salaries. While the basket of inputs assumes a salary of 6,800 NIS (gross) monthly per caregiver, in practice, most caregivers earn a minimum wage. Thus, for example, in a press release concerning the increase in fees, the Finance Ministry wrote: “As mentioned, we emphasize that the caregivers’ salaries are set by their direct employer and they are permitted to use their discretion in the use of their resources” (Ministry of Finance, 2010).

This Ministry of Economy and Ministry of Finance policy harms the quality of service in recognized daycare centers because the wage paid to the caregivers is in effect lower than the calculated salary built into the budget. The low wages of caregivers in recognized daycare centers also affects the salaries of caregivers in the private sector. The latter earn slightly more than what is customary in recognized daycare but the generally low salaries in daycare pulls the market down as a whole (personal communication – daycare center directors, 2014). The policy also harms access to daycare centers because their fees are higher than their actual costs.

### *C. Authorization to collect additional tuition beyond the price ceiling*

In 2010, in response to a request from WIZO<sup>22</sup> and the Kibbutz Movement, the Ministry of Industry and Trade authorized a procedural deviation from the basket of services that allowed daycare center operators to charge parents of children attending the center for services not

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<sup>22</sup> One of the largest women’s organizations operating daycare centers.

included in the basket (personal communication, March 3, 2013; personal communication, February 17, 2013). The Ministry authorized collection of additional tuition on the condition that all the parents in the center agreed, and within this framework parents would be able to improve the quality of the food (beyond the customary meat and dairy menus found in most centers), to pay for security not provided by the Ministry of Industry and Trade, and to reinforce the staff, and to add enrichment. Tamar Almog, who was head of the Daycare Centers and Home-based Nurseries Division until 2012, explained the arrangement for deviating from the basket of services by the disparity that exists between the desired quality in daycare centers and the services actually given at the centers:

Currently, a gap exists between the services provided in line with the basket of services and the level of services the Ministry aspires to attain once the legislative procedure is complete which, by its nature, is also subject to various compromises as a result of negotiations taking place with different parties involved in the process. [...] In order to balance the said gap, I believe there is room to allow parents interested in doing so, to fund additional expenses whose objective is to optimize the services provided to the toddlers, at least as an intermediary step until the legislation is complete (emphasis in original, S.M.) (Almog, 2011).

The Daycare Division authorized collection of additional tuition but did not oversee the amount collected nor how it was used, as emerges from the remarks of Tamar Almog, the Division head: “I cannot declaratively state that the Ministry is also capable of overseeing the contents of that basket since it varies from place to place, from area to area, due to parents’ desires of one type or another. It requires prodigious and unreasonable oversight” (Protocol 130, Children’s Rights Committee, 2011, p. 23).

In other words, within the state-supervised system, the state has, in recent years, permitted the development of two education systems – one with meager resources operated according to the standard determined by the state, and the second, a reinforced system that serves advantaged populations that can afford to pay a higher tuition than the standard. This change in policy increases inequality in daycare centers.

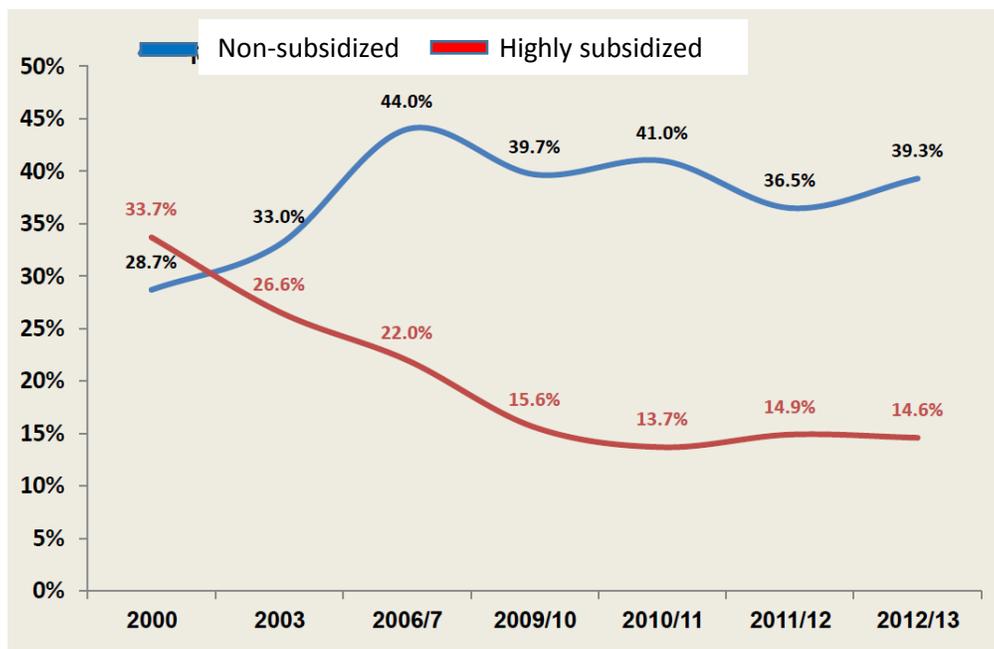
*D. Daycare center admission and subsidy criteria impinge on disadvantaged populations’ access to services*

Currently, the level of subsidization is determined by a combination of two criteria – calculation of the family’s per capita income and the scope of the mother’s employment, with part-time work negatively affecting the level of subsidy. Despite per capita income being the basic criterion for

tuition subsidy eligibility, in practice, there are many groups eligible for subsidies based on their status without regard to their income. Among the groups eligible at a higher level than the one calculated with reference to the above criteria, are single parents, new immigrants, Ethiopian immigrants, and returning citizens (that had emigrated) (Government Decision No. 4193 of January 29, 2012). Other government decisions granted benefits to specific populations. Government Decision 904 of November 15, 2009 provides those evacuated from the Gaza Strip with a Level 4 Subsidy of at least 20 hours weekly of daycare to mothers who work or study, without examining the father's employment status and without a means test. This guidance was renewed in Government Decision 1416 of March 3, 2014 and the subsidy is valid for the 2014-2015 academic year (Work Procedure 2009, 2014). A similar government decision was made concerning the residents of the city of Sderot and the Gaza perimeter communities (Government Decisions 453 of June 21, 2009 and 1114 of December 29, 2013).

At the same time, throughout the past decade, the rate of highly subsidized children increased and the rate of non-subsidized children decreased. This policy increased access for children from disadvantaged families to daycare. As mentioned, the daycare system currently gives priority to the children of working mothers over at-risk children. Nonetheless, as emerges from Figure 3, below, the rate of children entitled to high tuition subsidies grew in the last decade while the percentage of children not at all entitled to a subsidy fell.

Figure 3 – Change in the Percentage of Highly Subsidized Children as Compared to Non-Subsidized Children from 2000 to 2013



Source: Ministry of Economy, 2013

#### 2.4 Daycare Center Admissions Prefers Children of Working Mothers over Children at Risk

In admissions, daycare center policy gives preference to children of working mothers over children at risk and disadvantaged children, although this was not the approach that characterized daycare centers when they were established. At the time of the State’s establishment, daycare centers were seen as serving two target populations – one, children from disadvantaged families and in particular, welfare children, immigrant children, and children from large families,<sup>23</sup> and second, children of working mothers.<sup>24</sup> Underpinning this policy was

<sup>23</sup> Another document of the same year from the Ministry of Welfare (1973, p. 2), which concerned daycare center activities, clearly defined the center’s target audiences:

1. Problematic children from problematic families, also in part, children for whom daycare constituted an alternative to being removed from the home
2. Children from families with many children who were in distress
3. Children of working mothers

<sup>24</sup> An example of the way policymakers in the 1960s viewed the role of the daycare center can be seen in the following quote: “The committee, in determining that the level of women’s education has a decisive role with respect to their participation in the workforce, noted the conflict that exists between the aspiration to increase the birth rate, which is highest among women with lower educational levels, and the trend to promote women’s employment by ensuring that they broaden their education, and the need to prevent a situation wherein promoting women’s employment contradicts the tendency to support childbirth and prolong the period of study

the integrative approach which sought to prevent segregation of at-risk children and the labeling of daycare centers as intended only for children from weak populations: “But in any case, we must continue to accept children from more affluent population groups – so that children from all strata of society meet one another already during earliest childhood and to prevent as much as possible, this connection from unraveling in the future” (Ministry of Welfare, 1973, p.2). A similar argument appeared in a 1977 Ministry document regarding integrating children of working mothers in daycare centers, which discussed educational aspects of daycare centers: “There are affluent mothers who want daycare and since we are not interested in daycare only for the poor, we permit the admission of private children” (Rosenman, 1977, p.1).

Throughout the years, daycare policy increasingly neglected the population of at-risk children and focused on the children of working women, as seen from the remarks of Ms. Zohar Karti, head of the Women’s Employment Unit during the 1970s: “If, previously, we stressed development towns and depressed neighborhoods, today, the daycare centers we are involved with are located in working class neighborhoods in which the percentage of working and potentially working mothers is high” (Karti, 1977, p. 1).

Focus on the target group of children of working women led to a significant drop in the percentage of at-risk children in daycare centers, as can be seen in Figure 4, below. In 2010, the “Toddlers at Risk Law (Right to Daycare), 2000” was enacted. The law determines that at-risk children aged 0-3, have a right to daycare and reflects the failure of the policy in providing toddlers at risk with access to education services. In practice, daycare centers give admissions priority to children who continue in daycare over children at risk. At the Ministry of Industry and Trade, it was claimed that in actuality, toddlers at risk were not turned away due to there not being enough places.

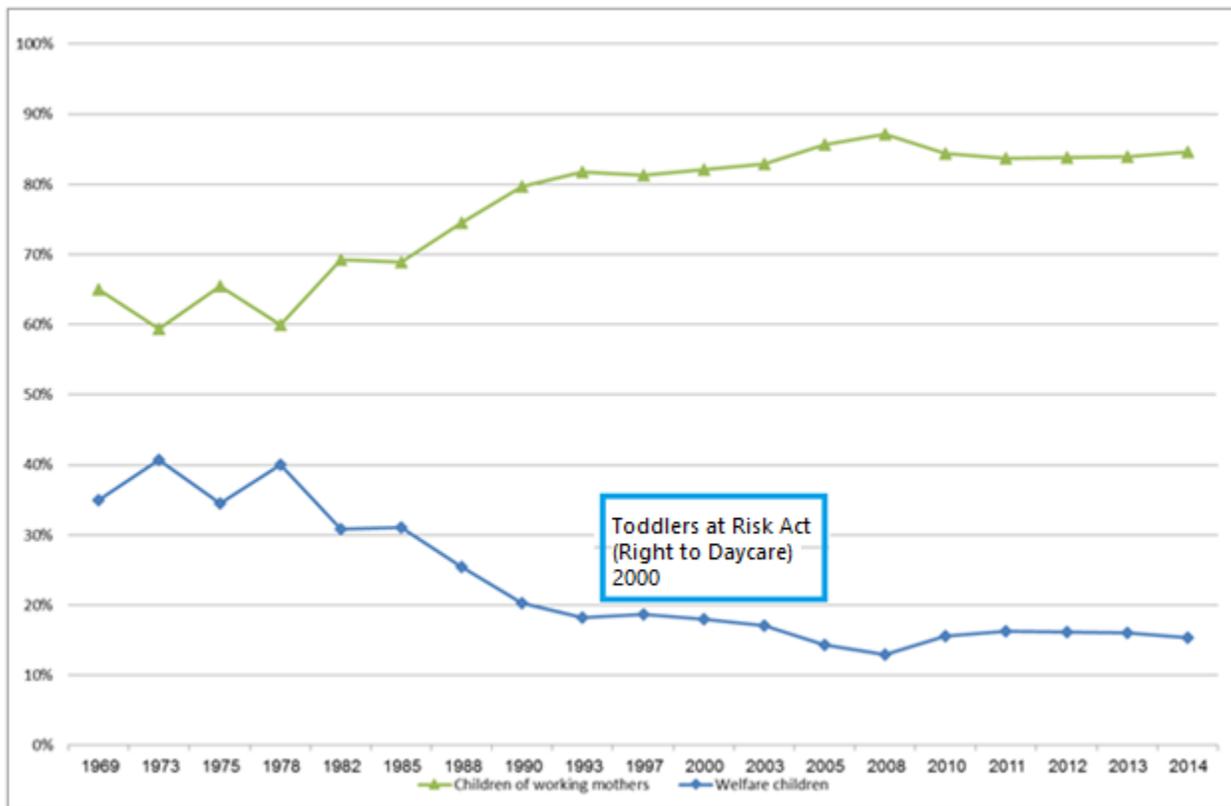
Daycare tuition is determined according to criteria of average per capita income with the lowest level requiring tuition of approximately 400 NIS monthly for a toddler and roughly 500 NIS monthly for an infant, high amounts for low SES families. In unusual cases, the Exceptions committee can authorize a tuition waiver. For example, in 2011, 260 requests for tuition waivers were granted (Rabinovich, 2012).

As is seen in Figure 4, the percentage of children at risk among all children in daycare steadily declined throughout the years.

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[...] Thus, the committee recommended creating conducive conditions for the employment of the woman who is a working mother, in part, by establishing daycare centers (State Comptroller, 1971, p.449).

Figure 4 – Percentage of Children of Working Mothers and Children at Risk in Recognized Daycare Centers in Israel, 1969-2014



Sources: Fichtelberg-Bermatz, 2004; Lotan & Schwartz, 2010; Weissblei, 2015

Thus, policy throughout the years steered children at risk away from daycare and concentrated on children of working mothers. Despite children in daycare generally constituting a heterogeneous group, in practice, daycare centers are local and reflect the population living in their area. Not only that, but a small comprehensive study (37 centers) found a relationship between SES of the area where the daycare center is located and demographic variables of the parents whose children attend the center and the quality of the center. So, even within the system of supervised daycare centers, the quality of the center is lower in low SES cluster localities and parents have a low level of education, as compared to high SES cluster localities and parents with higher education (Levy, 2015).<sup>25</sup>

<sup>25</sup> An exception are the multi-purpose daycare centers, some of which are intended for at-risk children.

## 2.5 Daycare in the Arab Sector

In 2012, only 3.5% of recognized daycare centers were in Arab localities; this, despite the fact that Arab children comprise 24% of the total population of children (Taub Center data). In 2007, 5,979 Arab children attended Ministry-recognized daycare and home-based nurseries. This included 3,265 children of working mothers and 2,714 welfare children. An examination conducted by the Knesset's Information and Research Center shows that the percentage of children attending education frameworks for up to age 4 increases with age (Lotan-Almagor, 2008). From the period prior to the State's establishment up to the 1990s, only a few daycare centers were opened in the Arab sector. This trend can be explained by the Zionist context in which daycare centers were established and by the relationship between the right to daycare and women's employment, which was very low in the Arab sector. Throughout the years, the tendency was to place Arab children in home-based nurseries, and not daycare. The official reason for this, which emerges from a letter written by the head of the unit, Yvette Sa'adon, is the difficulty in building new structures due to the difficulty in recruiting the necessary resources by the local Arab authorities: "I would like especially to mention the Arab sector in which daycare centers cannot be built due to the locality's inability to raise funds for this purpose – it is therefore important to make an effort to provide a solution for early childhood needs in these localities by establishing home-based nurseries" (Sa'adon, 1993, p. 1). This trend received additional reinforcement at the instruction of the minister of labor and welfare, Ora Namir, to focus solely on developing home-based nurseries in the Arab sector: "The minister ordered the continuation of development of home-based nurseries in the Arab sector and to cease development of daycare centers in this sector" (meeting summary regarding daycare, 1994, p. 1).

At the beginning of the 1990s, there was an effort to turn decision-makers' attention to the scarcity of daycare centers in the Arab sector. The Knesset's subcommittee on daycare centers deliberated on the topic as a result of the findings in the state comptroller's report and presented the Ministry of Labor and Welfare with a number of recommendations. The committee recommended establishment of 20 daycare centers in 20 Arab localities around the country and to increase the number of home-based nurseries with the aim of providing a solution for at-risk children. The committee also recommended flexibility in the daycare center hours so as to accommodate the needs of working women in the Arab sector (Gozansky, 1993). These recommendations were largely repeated in the Eckstein Report (2010) but not implemented. Only towards the end of the first decade of the 2000s did daycare policy begin to include the Arab population, with the growing government participation in building daycare centers and with

the decision to ease the right to daycare and the amount of subsidy given to Arab women. Thus, in 2012, Government Decision 4193 was made, concerning increasing the Arab population's rate of participation in the workforce as well as their employment rate, and reducing the number of work hours required of Arab women in order to be eligible for a subsidy. Within the context of the decision the requirement was reduced from 36 to 24 hours weekly. The implication of the decision is that a woman meeting the admission conditions will also be entitled to a per capita income subsidy (previously, employment of fewer than 36 hours weekly negatively affected the level of subsidy).

## 2.6 Daycare in the Ultra-Orthodox Sector

In 1969, just six percent of daycare centers were in the ultra-Orthodox sector (Center for Demography, 1971). Today, the percentage of ultra-Orthodox children in daycare is 29% (Weissblei, 2015) while in 2013, the total percentage of students in ultra-Orthodox education (not including Habad, which is considered part of the state system) was 23%; 68% of ultra-Orthodox women are employed (CBS - Central Bureau of Statistics, 2013) (See Appendix 3). The increase in the percentage of ultra-Orthodox children in daycare started in the 1990s, with the strengthening of ultra-Orthodox political parties in the Knesset and the appointment of their members to the Ministry of Labor and Social Affairs. In addition, the structure of the ultra-Orthodox family is such that the woman is the breadwinner while the man studies the Torah<sup>26</sup> corresponded to the daycare admission requirement which made acceptance conditional upon employment. Likewise, the fact that the daycare centers are operated by third sector organizations and the curriculum is set by the center (with no national curriculum) enables maintenance of the ultra-Orthodox separateness and is not accompanied by the conflicts typical in the education system at older ages. Finally, the lack of economic viability in operating daycare centers in the periphery, which is characterized by low income and welfare families, also contributed to the rise in the proportion of ultra-Orthodox centers since the large concentration of the ultra-Orthodox population is located in the center of the country. In many cases, ultra-Orthodox operators filled the void created by the closure of centers run by women's organizations (personal communication, October 2, 2013; Payments to yeshiva students for daycare and nurseries, letter to the deputy minister, Menachem Porush, 1991).<sup>27</sup>

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<sup>26</sup> In 2013, the percentage of employed ultra-Orthodox men was 56%, as opposed to 85% among Jewish men in general (CBS, 2013).

<sup>27</sup> The Arrangements Law of 2013 changed the admission conditions to daycare and determined that in order to encourage employment, a test of employment would be applied to both members of the couple (and not for the

## 2.7 Good Start

“Good Start” has been operating since 2009 within the framework of the National Program for Children and Youth at Risk and is geared toward five year old children. This is a program operated in 180 1-5 SES cluster localities (low SES clusters). The program represents a comprehensive approach to dealing with children at risk and is a collaboration between the Ministries of Social Affairs, Education, Health, Interior, and Immigration and Absorption. Similar to its American counterparts, the HS and EHS intervention programs, the programs are operated through outsourcing or by local authorities though they do not offer an educational program but rather intervention programs that go into the education setting or into the home. The programs include intervention programs in a treatment framework, intervention with parents, intervention in the areas of child development, etc. There are 21,367 children that participate in the programs from age birth to six and 11,469 parents of children placed in programs by the welfare authorities. The objective of the program is to identify children at risk and to reduce harm they may experience. The early childhood program is budgeted at 73 million NIS annually (a third of the entire program despite this age group representing half of all the children) (Rabinovich, 2015). The program is accompanied by an evaluation program although it examines mainly implementation of the program and not its results. There is also a locality-based information system in which data about the children participating in the program is concentrated. No evaluation is conducted which examines the program’s impact and its contribution to narrowing gaps (personal communication, August 4, 2015). It should be noted that the multiplicity of programs will make it difficult to examine the effect of the program.

## 2.8 Summary

The first section of this paper indicated the potential contribution of quality education in early childhood to narrowing social gaps. Review of the literature pointed to correlations between quality education, in particular for three year olds and up, and improved cognition. The findings were less clear regarding intervention programs for ages younger than three. The review shows the great inherent responsiveness to stimuli at these young ages and the importance of quality education frameworks.

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mother alone). It was also decided that Kollel studies (full-time yeshiva studies) would be counted as studies toward a Bachelor’s degree for a limited amount of time (three years) exceptions excluded, subject to the Defense Minister’s decision. At the same time, as opposed to the original decision which was to apply the change beginning in 2014, it was decided to postpone its implementation and to gradually apply it starting in 2015, although as part of the coalition agreements connected with the formation of the government in 2015, the decision was cancelled (Cohen, 2015). It should be noted that the aim of the change in the Arrangements Law was to encourage employment and its implementation is expected to increase inequality since this is a very poor population group.

Examination of the policy for age 0-3 settings in Israel points to a combination of policies that give preference to access (admission to recognized daycare) and funding (subsidies) to children of middle or high socioeconomic status and leaves little room for children at risk or children of low SES status. This is the picture that emerges from examining the admissions policy to daycare, funding, treatment of the Arab population, and more, and it is not consistent with the Ministry's declared policy. Much of the time, this policy ignores the half of all children attending private frameworks.

Examining the quality of early childhood settings reveals the level of structural quality which is lower than customary for most OECD countries. In Israel, the number of children per group is high, much higher than recommended, and the ratio of the number of caregivers to the number of children is also high. In low SES neighborhoods in the center of the country, the crowding in daycare centers is higher than the standard. The data regarding the education level of center directors attest to a shortage of directors trained for the position and information is lacking with respect to education, professional development and years of employment as caregivers. These findings do not inspire belief in the ability of daycare centers to bridge the deep socioeconomic gaps that characterize Israeli society, and raise concerns about the system's possible negative implications for the development of the children being schooled there.

### 3. Preschool Education in Israel and its Contribution to Reducing Inequality

This chapter will focus on preschool education for ages three to six (3-6) with an emphasis on the policy in this area during the past decade. The chapter will examine two central policy axes that characterize preschool education policy. The first axis relates to the tension between access to services, expressed by the cost of services and their degree of availability, and the quality of services as expressed in the structural and processive criteria listed in the first chapter of this review. The way this tension between access and quality is settled greatly affects the service's target audience and the extent to which the system supports equality of opportunities. The second axis examines, on one hand, preschool education policy with respect to the degree of its universality; that is, the degree to which policy is meant for the general population and on the other hand, the degree of its progressivity, that is, the extent to which it gives priority to disadvantaged populations. A significant issue without which it is difficult to have a discussion

about these axes is the issue of budgeting for preschool; however, since Nachum Blass's review comprehensively handles this issue, I will address it only briefly.

With the State's creation, responsibility for preschool education was placed in the hands of the Ministry of Education's Primary School Division, under the Compulsory Education Law, 1949. In 1959, this responsibility was broadened to include three and four year olds with the Primary School Division also in charge of kindergartens with 10 or more children. At the end of the 1980s, the Ministry's director-general, Shimshon Shoshani, established the "Preschool Education Division," one of three age divisions at the Ministry (Micalovich, 1999). Similar to the Ministry's practice in general, the Preschool Division creates curricula for preschools on diverse topics, which they are required to follow.

In Israel, there are four types of preschool. Preschools that are part of the official and recognized education system in which the curriculum set by the Ministry is followed, they have no admission selection process and do not charge tuition beyond what is allowed. These preschools are fully funded by the Ministry of Education. There are recognized but not official preschools – private preschools that have incorporated and received an operating license from the Ministry of Education. These preschools receive a subsidy of 720 NIS monthly per child; the remaining costs are borne by the parents. There are also private preschools with at least 10 children age three and up, subject to the Ministry's oversight, and private preschools with fewer than 10 children age three and up; these preschools are not subject to the Ministry's supervision and their status is similar to the status of private nurseries for toddlers under the age of three. It should be noted that there are no data about the number of private preschools and the children that attend them, and the extent the Ministry actually does oversee the preschools which they are legally required to supervise (Weissblei, 2015).

According to MOE data for 2014-15, 477,740 children attended 17,675 classes in preschools supervised by the Ministry. Approximately 68% of these children were in official education and the balance in recognized but not official education (hereafter "RNO"<sup>28</sup>). About 68% of preschools in RNO education are part of the ultra-Orthodox education stream. About three percent of all children were in special education (Weissblei, 2015).

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<sup>28</sup> There are three types of educational institutions in Israel: recognized and official institutions, required to teach the official curriculum, do not have a selective admissions process and receive public funding of 100%; recognized but not official institutions supervised by the MOE and obligated to teach 75% of the curriculum, permitted to selectively admit students and charge additional tuition. These institutions receive about 75% funding. There are exempt institutions that are part of ultra-Orthodox education, which are not obligated to teach the curriculum and do not follow MOE rules with respect to selecting students. These institutions receive funding of 55% (Levi-Faur, Gidron & Moshel, 2015).

Teaching preschool is predominantly a women's profession; 99.3% of teachers in preschool are women. About 84% of the teachers have an academic degree (compared to 91% of primary school teachers and 89% of high school teachers), 13% have a Master's degree or beyond (compared to 24% of primary school teachers and 38% of high school teachers). The average age of preschool teachers is 43 with an average of 17 years of employment in the field (Finance Ministry, 2015).

### 3.1 The Ministry of Education Budget

The budget for the Preschool Education Division for 2015 was 5,500,702,000 NIS which was 12% of the Ministry's budget. This is a significant increase in the division's budget of 2,641,764,000 NIS in 2010, which at the time, represented 5.6% of the ministry's budget. This stems from the three main reforms mentioned above: implementation of the Compulsory Education Law for three and four year olds, transfer of after-school care to the Ministry of Education's responsibility, the Second Aide reform, as well as from the budget supplement for implementing the "New Horizon" program that began in 2007 and was completed in 2013 (Levi, 2013).

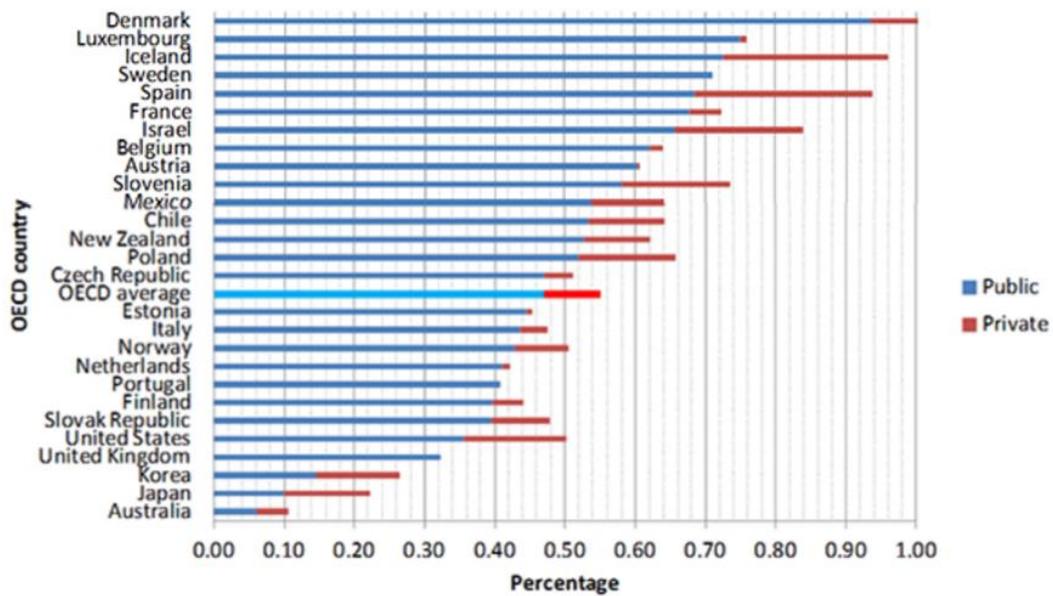
Figure 5 – Preschool Education Division Gross Budget for 2010-2015 (in Billions NIS) at Current Prices



Source: Ministry of Education website

Compared to OECD countries, the national expenditure for early childhood education as a percentage of the GDP is higher than average.

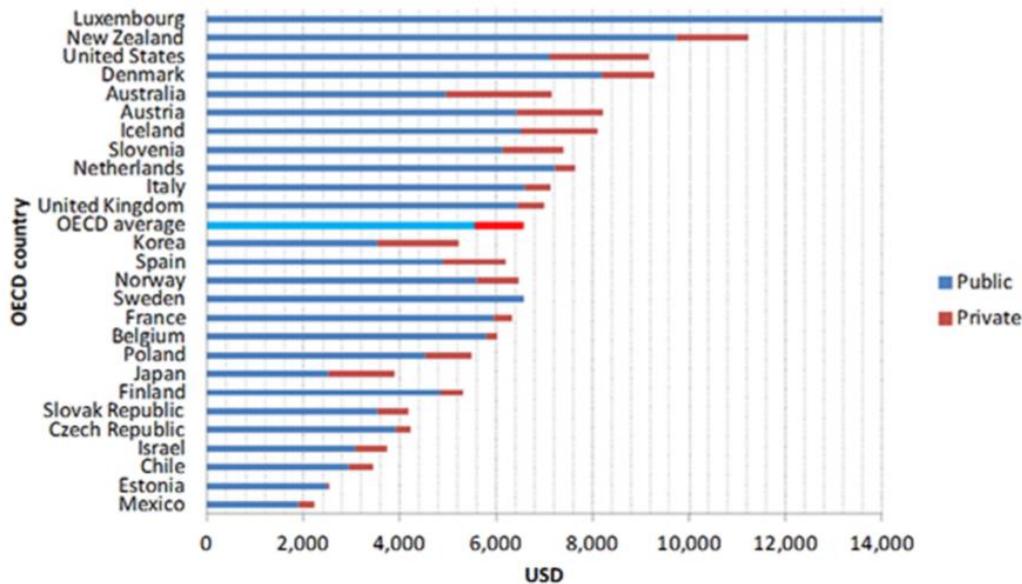
Figure 6 – Public Expenditure on Early Childhood Education as a Percentage of GDP in OECD Countries, 2010



Source: [Education Counts website](#)

However, when the investment in preschool education per child is examined, it emerges that Israel is below the OECD average. It should be noted that these data relate to 2012 and do not reflect the increase in the division’s budget following implementation of free education for three and four year olds and the Second Aide reform, more about which will be discussed below.

Figure 7 – Total Expenditure (Public and Private) per Child (Full Time Equivalent) Aged 3 and Older in OECD Countries, 2010



Source: [Education Counts website](#)

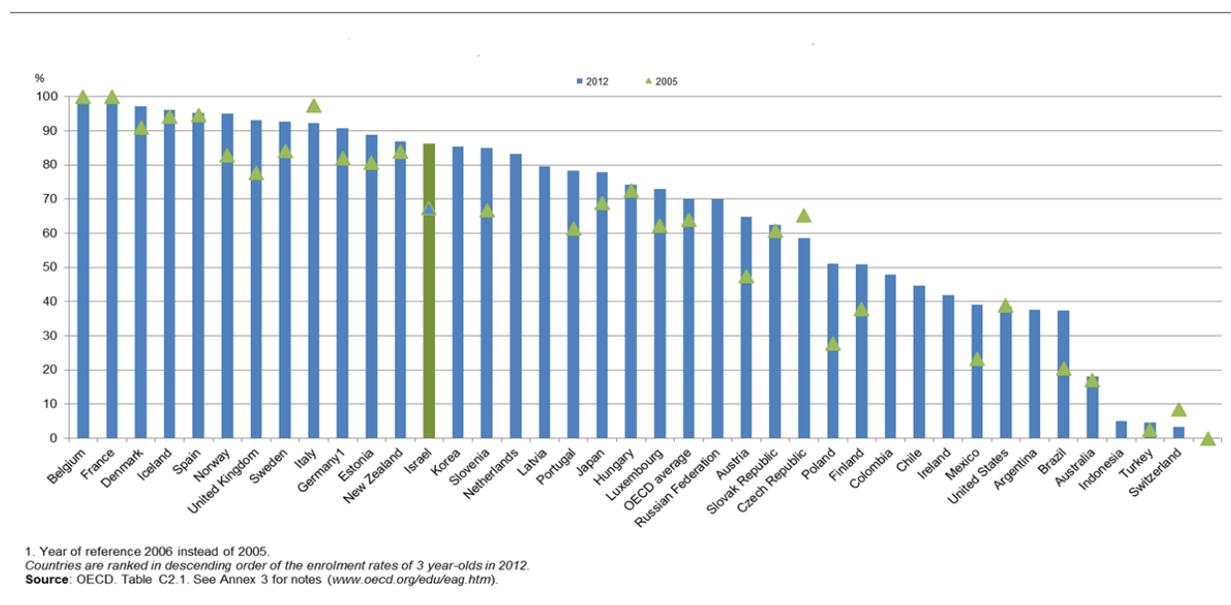
### 3.2 Access to Services versus Quality of Preschool Education Services

As presented in the first chapter, quality early childhood education is connected with narrowing developmental, cognitive, and motoric disparities in the short term and to a lesser degree, in the long term. Quality education is expressed in structural characteristics (group size, ratio of number of caregivers to number of children, the teaching staff's training and professional development, curricula) and in processive characteristics with emphasis on the interaction between the teaching staff and the children and the degree of their responsiveness to their needs. Frequently, quality services are perceived as a contradiction to accessible services, as reflected in the number of people that benefit from the service, its availability (in the case of preschools the intent is the number of hours they operate), and its cost. For example, in Britain, there is relatively low access to services and the government funds only 15 hours weekly in preschool for three and four year olds. In contrast, the government provides quality education, expressed in small groups, low caregiver-children ratio and strong regulation (Ben-Galim, 2011; 2014). Another model of coping with the tension between access and quality, is found in the

Scandinavian countries where services are both accessible and high quality (Bennett & Taylor, 2006).

Access to education services for young children is increasing in the OECD countries. In Israel, the rate of participation is higher than the OECD average. Figure 8, below, presents the percentage of children in preschool by age, as compared to OECD countries. Attention should be paid to the fact that the figure presents data from 2012, that is, prior to implementation of the Compulsory Education Law for three years olds and that today, participation in public frameworks has increased and stands at 89% of all children (in official and RNO education).

**Figure 8 – Percentage of Three-Year Olds in Preschool in OECD Countries, 2005-2012**



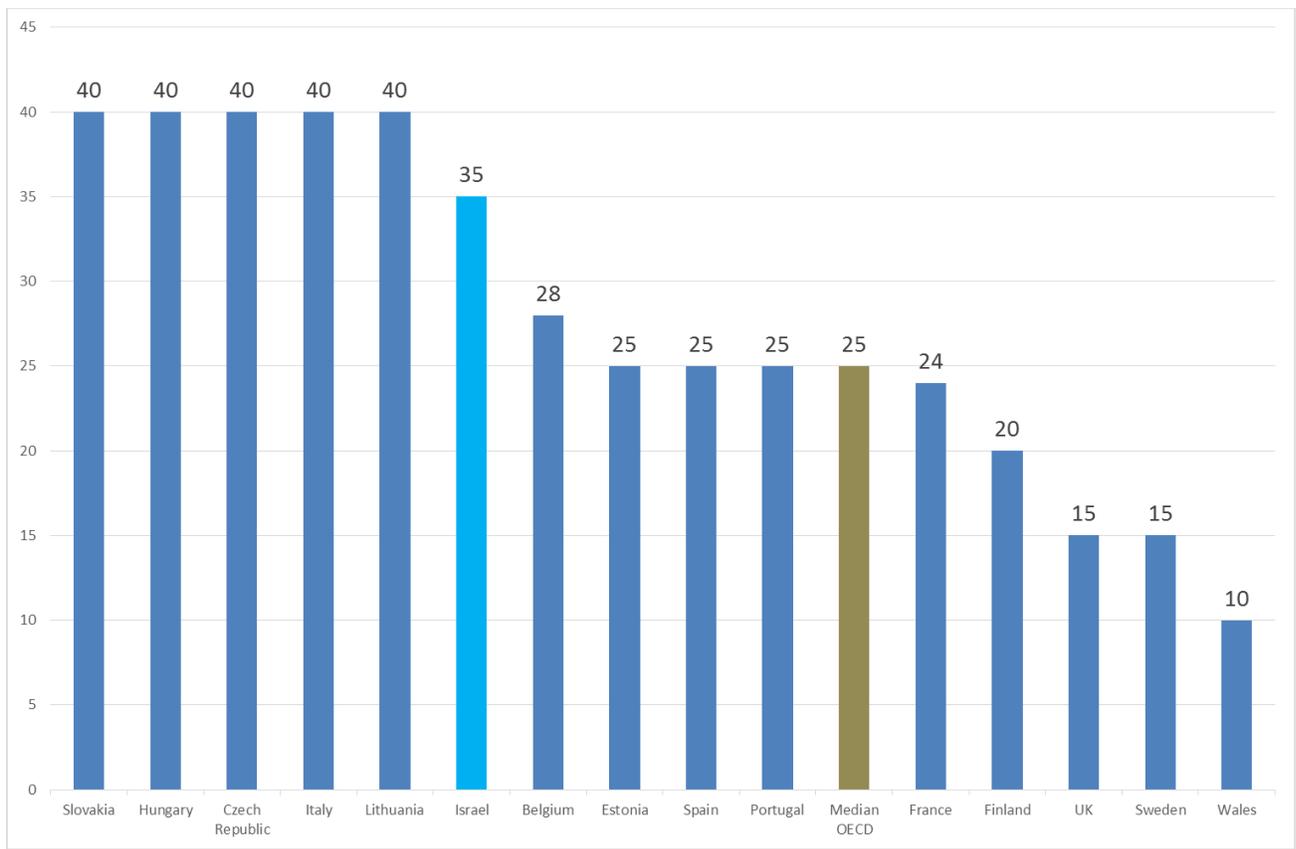
Preschool education attendance in Israel is not similar between different sectors. In East Jerusalem, there is a shortage of preschools and not all of the children whose parents are interested receive education services. It should be noted that in the Arab sector in general, and specifically in the Bedouin sector, the percentage of participation in preschool education is lower than in the Jewish sector (State Comptroller, 2015).

The gap in the rate of participation between the Jewish and Arab sectors was expressed also in the PISA research data of 2009. The data indicated achievement gaps on the PISA tests for ninth grade (age 15) between children that attended at least one year of preschool education and children who did not attend preschool. The PISA data showed that in Israel these gaps were particularly large. Analysis conducted by RAMA (National Authority for Measurement and

Evaluation in Education) found that first and foremost, these gaps reflect the disparity between Jewish children and Arab children, since the phenomenon of non-participation in preschool education is common mainly in the Arab sector where 16% of participants reported that they did not attend preschool. RAMA’s analysis showed that when this gap is separately calculated among students in the Hebrew-speaking and Arabic-speaking sectors, and the effect of SES status is removed, the differences in achievement narrow significantly, but are still present. The research cautioned that this was a correlation and not a causal connection and the effect of preschool education on achievement should continue to be studied. The research also indicated the need to more strictly enforce the Compulsory Education Law in the Arab sector as well (Rapp & Rigbi, 2011).

Another datum that completes the picture with respect to access to preschool is the number of hours spent per week in preschool. Figure 9 shows that in Israel, the number of weekly hours in preschool is above average.

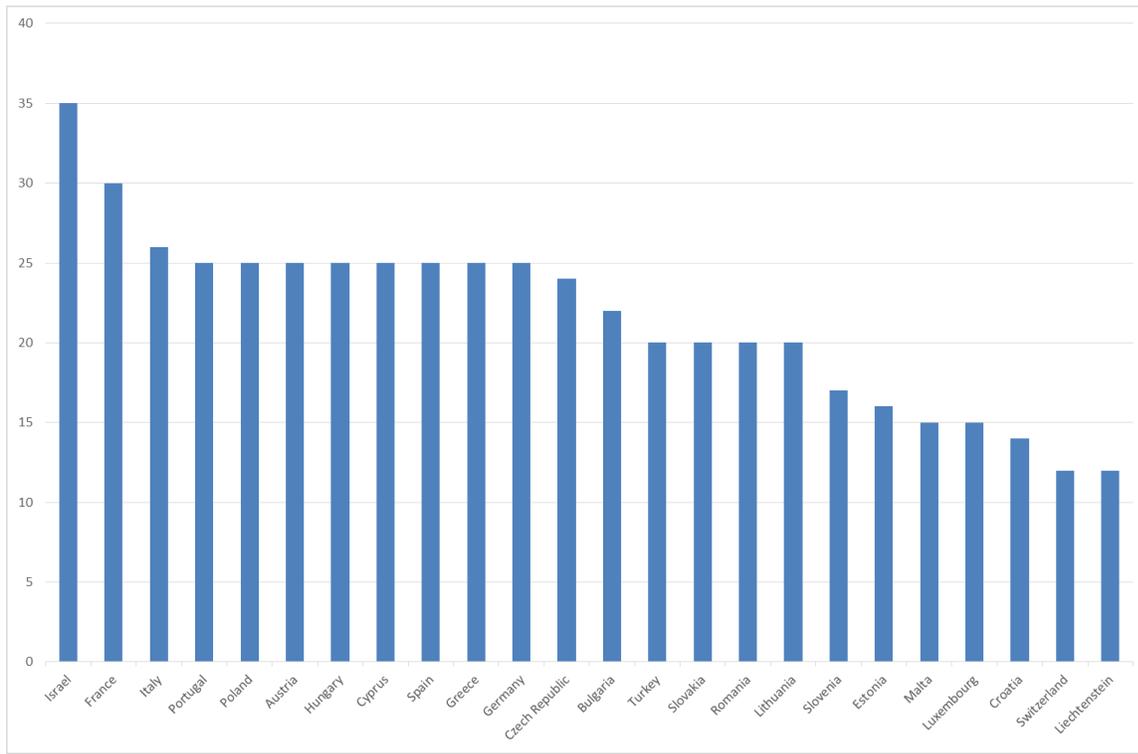
**Figure 9 – Number of Weekly Hours Spent in Publicly Funded Preschool (Age Three and Up) in OECD Countries**



Source: European Commission, 2014

Thus, policy in Israel offers high access to early childhood education frameworks. In contrast to the relatively high access, the quality of services in Israel is relatively low, reflected in it being the leader among OECD countries in having the highest number of three year old children in a preschool class.

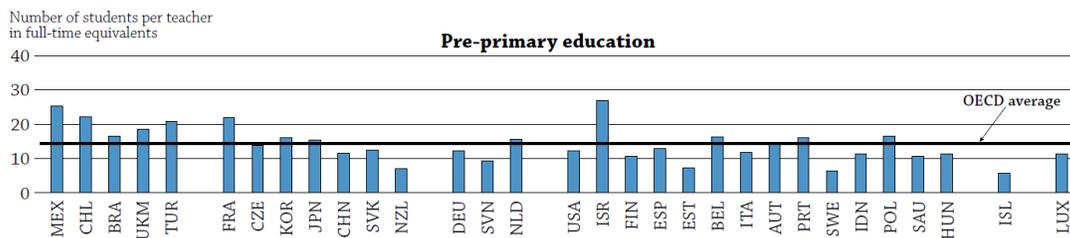
Figure 10 – Maximum Number of Children in a Preschool Class of Three Year Olds



Source: European Commission, 2014; Data for Israel from the Ministry of Education website

Despite the high official standard, in actuality, the average number of children per preschool teacher is lower and stands at about 27 children per teacher (the reference is to preschool teachers, not to staff members in general), as compared to an average of 14.5 children per teacher in OECD countries.

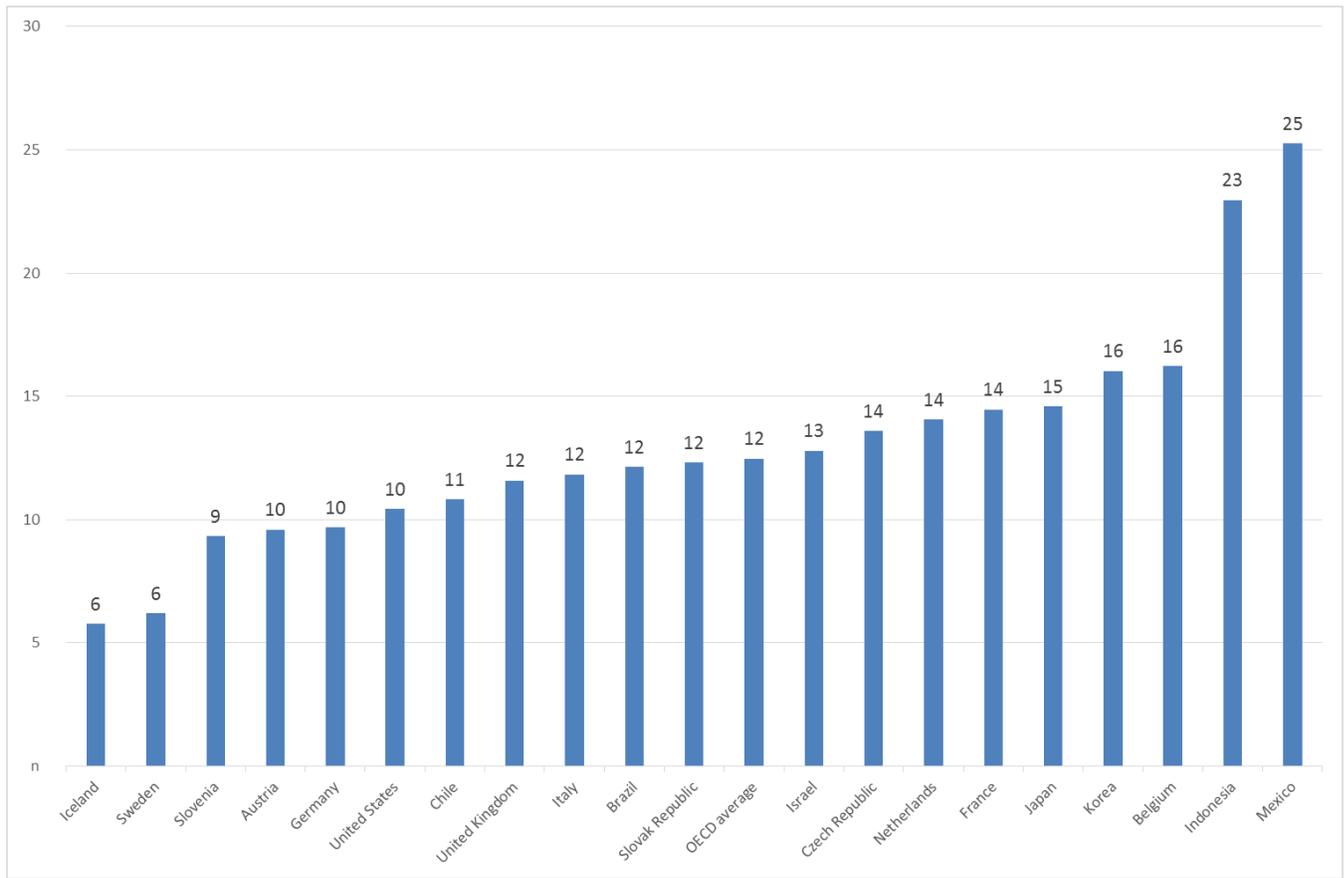
**Figure 11 – Average Number of Children per Preschool Teacher, 2012**



Source: Education at a Glance, 2014

When the ratio of number of staff members to number of children is examined, Israel is close to average (Volansky, Sela & Asher, 2015). Since the data below relate to 2012, it is reasonable to assume that the Second Aide reform, begun during the past academic year (2014-15) lowered the ratio between staff and children in Israel to below the OECD average.

Figure 12 – Student to Contact Staff (Teachers and Teacher’s Aides) 2012



Source: Education at a Glance, 2014

Another important component of quality relates to the quality of the teaching staff. As detailed above, 84% of preschool teachers in Israel hold a Bachelor’s degree. This datum is expected to rise following the New Horizon reform requirement (see below) for all preschool teachers to possess academic education. Preschool teachers are Ministry of Education employees; aides working at the preschool are employed by the local authority. The requirement for aides is 12 years of schooling and a dedicated training course. The State Comptroller’s report indicates disagreement regarding the aides’ training processes and their employment terms (State Comptroller’s report, 2015).

The data show that the structural quality of the services in Israel is relatively low and that it does not support equality of opportunity for children from disadvantaged backgrounds.

The ongoing research of Dr. Yair Ziv presents interesting findings regarding the quality of preschools. Using the Classroom Assessment Scoring System (CLASS) (Mashburn et al.,

2008), the research examined the effect of intervention programs that include professional development for preschool teachers on the climate in the school and on the children's development. Fifty preschools (27 in the intervention group and 23 in the control group) participated in the study. At the end of the first year of research, it was found that the CLASS was a valid instrument for measuring preschool climate in Israel and that the results in Israel are similar to measurement results in the U.S. The study also indicated the deterioration in the quality of climate in the preschool at the end of the first year, as compared to the beginning – a finding that points to the staff's burnout. In total, a positive effect was not found for the professional development program conducted with preschool teachers, although the program's findings were similar to those found abroad. Ziv hopes that the intervention's positive impact will be reflected in the participating preschools' climate in the next academic year (personal communication, Y. Ziv, 2015).

### 3.3 Universality versus Progressivity

The topic of universal policy that targets the entire population versus progressive policy is expressed in a number of reforms and laws advanced by the Ministry of Education during recent decades:

#### 3.3.1 The Long School Day

The Long School Day and Enrichment Studies Law (1997) is a law designed to promote equality of opportunity for children. The original version of the law was intended to be gradually applied in the entire system, beginning with its implementation in low SES cluster localities. The language of the law states: A. The purpose of the law is to provide every child in Israel with the opportunity for equal educational in order that he optimally fulfil his abilities. B. This comes to add study and education hours to the existing hours in educational institutions in order to expand and deepen the student's knowledge and education, to add moral education and social-based activity. The law was implemented in preschools in 1999 but its complete integration was postponed a number of times through the Arrangements Law. In 2007, Yuli Tamir, then the education minister, ordered the application of the law in preschools – the Long School Day and Enrichment Studies Law Decree (applied in preschools) -2007. The decree extended the law to include preschools in localities where the law applied to schools which belonged to 1-6 SES cluster-groups. The decree included 92 local authorities. Following discussions in the Knesset's Education Committee, the decree was also applied in special education preschools and in ultra-Orthodox preschools.

Within the framework of the Trajtenberg Committee recommendations, it was recommended that an extended school day be applied to all children aged three to nine and that a differential subsidy be provided for the long school day in line with the locality's socioeconomic ranking. The recommendations were authorized by the government and included free education for three and four year olds (to be discussed below) and subsidization of afternoon educational frameworks (Yeshurun, 2012). The Trajtenberg Committee recommendations were partially implemented. The Long School Day Law is not implemented as universal policy but rather as progressive policy that serves low SES clusters. The funding policy for the long school day and for afternoon settings is progressive with the cost of the service set by a family means test.<sup>29</sup> At the same time, it is not clear whether this policy achieves its goals and works towards narrowing gaps, especially in light of research evidence according to which additional hours do not necessarily contribute to improved achievement (Karoly, Kilburn & Cannon, 2006). On the other hand, application of the long school day had a different positive effect – on mothers' income. A study that examined this question found that implementation of the long school day made a positive though not significant contribution to increasing the number of months worked by mothers, though in the case of single mothers, it did make a positive and significant contribution to the number of months worked. Another finding shows an increase in mothers' income level following the law (Weissblei et al., 2015). That is, the extended school day can have positive effects on income and on reducing economic inequality which must be weighed against the possible negative implications of remaining for many hours in an education framework, mentioned in some of the research on children (Karoly, Kilburn & Cannon, 2006).

### 3.3.2 The “New Horizon” Reform

In 2011, 99% of recognized and official preschools joined the New Horizon reform (Weissblei, 2013). First and foremost, the reform represents a new wage agreement with the teachers' union and also includes several structural and pedagogic components. Within the framework of the reform, the school day in all preschools was extended by 40 minutes. Further, within the reform's framework, preschool teachers are now required to have an academic degree. The new wage agreement lengthened the number of hours preschool teachers remain in the school with the aim of enabling the teachers to work individually with the children, to enable work in small groups of children, to improve the relationship and communication with parents, and to develop plans of activity (this does not refer to the curriculum since the Ministry determines the

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<sup>29</sup> An evaluation study examined the effect of the program on improvements in achievement and reducing gaps among primary school children but a similar study was not conducted to examine the program's influence in preschools (Rimon & Romanov, 2009).

curriculum). Another component of the reform is structured professional development for preschool teachers that aligns with the reform's structural changes and pedagogic expectations. The main topics of professional development are: training the staff to identify, and professionally and personally address, children's unique and individual needs in the academic and social spheres, development of diverse teaching-learning models to promote individual and group learning alongside integration of different models for developing a meaningful preschool daily schedule, establishing cooperative and trust-building relationships with parents and local authority and community entities to enrich practice in the preschool. Finally, within the New Horizon reform framework, RAMA (National Authority for Measurement and Evaluation in Education) developed an instrument to assess preschool teachers with the aim of improving teaching and learning performance in preschools. Prior to the reform, assessment of preschool teachers was made separately by each supervisor without any instruments or uniform criteria. The new instrument enables a unified assessment process.

The state comptroller's report which examined the reform's implementation indicated several deficiencies and areas for improvement. In part, the report indicated that in practice, teachers' work with individual children does not take place, most of the teachers do not carry out a mapping whose goal is to assess the children's abilities and to identify difficulties, and fewer than half of the teachers conduct individual meetings with the parents. The state comptroller's report quotes from RAMA's assessment regarding the teachers' perception of the reform's influence on children's achievements and development: "On the topic of the reform's influence on children's cognitive achievements, their socio-emotional experience, their social skills and their self-confidence, about half of those surveyed – the preschool teachers and the parents – both in the 2002 study and in the 2003 study, believed that the reform does not influence these facets, neither positively, nor negatively" (State Comptroller, 2015, p. 872). The state comptroller's report indicated that development of the preschool teacher assessment instrument was not complete and in 2015, use of this tool would not be possible (State Comptroller, 2015).

The New Horizon reform has universal attributes. All public preschools and all preschool teachers participate in it. Program features support improving structural and procedural quality in preschools – particularly the academic requirement, the new content of teachers' professional development and the emphasis on individual work and communication with parents. At the same time, criticism of the reform was heard concerning the extended number of hours in preschool not being of benefit to the children and that preschools are not set up to provide a solution for young children in the afternoon (see, for example, Shela, 2011; Shemesh, 2012).

### 3.3.3 Free Education for Three and Four Year Olds

In 1984, Amendment 26 to the Compulsory Education Law (1949) was authorized, which applied the law to all three and four year old children. Full implementation of the law was postponed for years by the Arrangements Law and was gradually applied, beginning in localities with a 1-2 SES cluster; in 2011, the law was applied to the level 3 SES cluster. In public preschools subject to Ministry of Education oversight where the law was not enforced, a sliding scale model for tuition was set and operating costs were divided between the MOE, the local authority and the parents (Vergen, 2009).

In 2012, in light of the Trajtenberg Commission recommendations, Government Decision 4088 authorized the implementation of free education from age three. It should be clarified that the significance is not the decision to apply the law but rather to provide free education (not compulsory) in those areas where the law did not apply. The cost of implementing the law was 7.55 billion shekels and included construction of new preschools and the cost of personnel. Within the framework of implementing the government decision, 2,835 new preschool classrooms were built and 2,618 preschool teachers were added (Weissblei, 2015). Applying the Free Education Law is meant to be a step along the way to enforcing the 1984 amendment to the Compulsory Education Law, that is, to apply compulsory education to three and four year olds. The intention, however, came up against opposition by the community of parents, and the Ministry, on its part, announced that it had no intention of enforcing the law in the present academic year (Detel, 2015).

The move to institute free education for all children is, in principle, a regressive step, and the main beneficiaries are middle class parents whose children, prior to the reform, attended private preschools or recognized preschools where tuition was set by a means test.

### 3.3.4 The Second Aide Reform

Ahead of the 2015-16 school year, and in light of public criticism concerning crowding in preschool classrooms<sup>30</sup>, and particularly in three and four year old classes, a decision was made to improve the standard in these preschools and to fund the cost of a second aide in preschool classes with 30 or more children. It should be noted that in some preschools in affluent authorities, a second aide was already funded before the reform, at times funded by the local authority and at times by direct collection from the parents. According to the initial reform blueprint, the cost of the second aide was meant to be divided in a progressive manner. Strong

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<sup>30</sup> For example, the *Trom, Trom, Trauma* campaign: [http://www.anu.org.il/group\\_messages/122.htm](http://www.anu.org.il/group_messages/122.htm)

local authorities would pay half the cost of the aide and the MOE would pay the other half, while weak authorities would carry only 10% of the cost of the aide. Authorities falling in the middle ground would bear 20 to 30% of the cost. The local government coordinator opposed the progressive budget (Amsterdamski, 2015). The debate was resolved in an agreement that the state would pay the full cost of the second aide in weak authorities and 80% of the cost of the second aide in strong authorities. This solution dramatically diminishes the progressive principle that guided the policymakers when the reform set out.

As part of the Second Aide reform, the MOE instituted changes in preschool teachers' professional development by creating a position called "leading preschool teacher." The assumption of the leading preschool teacher reform reflects a change in the perception of knowledge in preschool education (articulated as "we all have the knowledge," it included the partners in the system and not only "top-down" knowledge). This was the assumption from which the structural change presented in the MOE's work methods was derived – a process of decentralizing authority for supervisors, the transition to working in geographic clusters, emphasis on cooperation between different entities within the system and in the emphasis on the local authority, development of an additional leadership rung in the system – leading teachers and an emphasis of being proactive, enterprising, and having a unique preschool identity. Another aim of the program is to provide a solution for the professional isolation that typifies professional work through an ongoing process of peer learning. The leading preschool teacher reform encompasses all preschool teachers in recognized preschools (MOE website).

### *Summary*

In the last decade, a number of broad-based reforms were advanced for preschool education in Israel. These reforms were accompanied by a significant budgetary increase of the Preschool Education Division. The review of reforms shows that in the tension between accessibility and quality, these reforms give preference to access to services, expressed in the rise in the number of hours children spend in preschool and in the high rate of children attending preschool. It should be mentioned and qualified – there are gaps between different sectors in access to services, with lesser access in the Arab sector. In contrast, it appears that the structural quality of preschools is relatively lower than customary in most developed countries and also in comparison to findings from the research literature. The Second Aide reform in preschools improved the standard of preschool personnel and the caregiver-children ratio, while class size has remained unchanged. Regarding processive quality in preschools, besides Ziv's study which examined preschool climate using CLASS, studies looking into preschools from this

perspective were not found and it is therefore difficult to draw conclusions regarding the processive quality of preschools. The literature review also casts doubt on the contribution of many hours spent in preschool to educational quality. The review adds that children from disadvantaged families have the most to gain from quality education.

In the tension that exists between universal policy and progressive policy it appears that the compass veers more towards universal policy with the MOE providing similar services to all the children in the country. Progressive principles are manifest in the “long school day” policy, provided for a limited number of localities, and in the Good Start program, which is a supplementary program for children identified by the welfare authorities. The largest and most costly reform in recent years, free education for three and four year olds, is chiefly a regressive reform and articulates a transition from progressive policy to universal policy and transfers funds to the middle class and upper class. The Second Aide reform, which was meant to rely on progressive funding, was at the end of the day, left with a sparse progressive basis. At the same time, the research shows that children from disadvantaged families benefit more from quality education and therefore, we can expect the Second Aide reform to serve them well. However, this point will need comprehensive research.

In general, the combination of two trends (preference for accessibility over quality and universality over progressivity) does not compensate children from disadvantaged families for the socioeconomic gaps in comparison to children from middle and higher SES families. In situations where the preschool is socioeconomically heterogeneous, children from disadvantaged families were able to benefit from this type of policy. However, localities in Israel are distinguished from one another based on the SES cluster and even in heterogeneous localities, there are gaps between residential neighborhoods. Since preschools are mainly neighborhood-based, it is reasonable to assume that the benefit for children from disadvantaged families diminishes.

#### 4. Status of Research in the Field of Early Childhood Education – Pedagogy and Policy

Education research in the area of early childhood in Israel is not as advanced as research conducted in the United States and in some European countries. The gap is seen in three main categories – objectives and areas of research, research tools, and scope of research. As a rule,

most of the research studies in Israel do not aim to uncover causality and the effect of different intervention programs on improved achievement and on equality of opportunity. Even most large-scale evaluation research halts at the level of examining the policy's implementation and integration and does not continue on to examination of the program's influence on children and toddlers. An example of this type of research is the evaluation study of the "National Program for Children and Youth at Risk," which, though it collected data on the children participating in the program, did not measure its effect in the way the American HS and EHS programs do. Methodologically, and as a result of how the goals are defined, there are very few RCT (randomized controlled trial) studies from which one can reach conclusions concerning causality and the effect of intervening entities. Another attribute of the research in Israel is the small sample sizes, as compared to studies cited in the first chapter with respect to HS and EPPSE whose sample sizes included thousands of participants. Finally, there are very few longitudinal studies that examine the effect of intervention programs over years. As a result, most of the research looks at the extent of implementation and not at the extent of the policy's impact and it is thus hard to learn about the extent of their effectiveness.

In the course of informal conversations held with policymakers, researchers and practitioners, the argument was heard that we can make do without this type of research (longitudinal RCT studies based on large samples) in Israel due to its high cost, and it is possible to rely on the data from similar studies conducted in other countries. Without invalidating the rationale behind this argument, it is important to examine whether there are data that make Israel unique as compared to other countries, data that would lead to other results in the Israeli case. One example of this type of data is the relatively low level of standards applied in most 0-3 frameworks and in the existence of two types of frameworks – recognized and supervised frameworks and frameworks that are not recognized and supervised. In preschools for three year olds and up, the latest Second Aide reform summons the possibility of examining the influence of the caregiver-children ratio. Classroom crowding in preschools in comparison to other countries is fertile ground for a long-term study whose results would be relevant to the Israeli case.

Based on the above, consideration should be given to creating a database for researchers that would represent diverse longitudinal data based on broad samples, similar to the NAEYC, Early Childhood Longitudinal Program databases, and the nationally representative Head Start Family and Child Experiences – HS Survey (FACES), all in the US. It is desirable that such a database be linked to, and capable of, interfacing with existing databases, and its data sets congruent

with data managed by the Central Bureau of Statistics, the National Insurance Institute data, data from the National Program for Children and Youth at Risk, and RAMA data.

Another vital topic to which attention should be paid is the systematic collection of data by government ministries (the Education, Economy, and Social Affairs Ministries) and the option of making them available to researchers (with individual privacy protected). In the past year, the MOE has created a budget and is publishing GEMS (Growth and Effectiveness Measures for Schools) data, although their target audience is the general public, not researchers (it is not possible to download the data to an Excel file or to SPSS), and similar to what was mentioned earlier, their databases do not communicate with other databases.

## 5. Summary

Daycare center policy, under the Ministry of Economy's purview, and preschool education policy both share a preference for access to services, that is, price, availability, and number of hours in the care framework over quality of services. In contrast, research findings repeatedly emphasize the importance of quality of services, particularly to improve the development and achievements of children from disadvantaged families. Their importance takes on greater meaning in light of the negative implications the research has found, of education in a low quality framework, as well as the low structural and processive quality that typifies daycare centers in particular. The review indicates that in their current format, daycare centers do not provide a satisfactory solution for children from weak families and new thinking is needed about daycare centers' target audience, their funding methods, and the oversight they and the other non-supervised education frameworks receive. It should be noted that although policy gives preference to accessibility (expressed mainly through price) over quality, access to daycare is not universal since only 23% of children in Israel attend recognized daycare centers.

The Ministry of Education also displays a preference for access over quality, reflected in the size of the group and the expansion in the number of hours spent in preschools within the framework of the New Horizon program. The latest reform of the third aide represents a trend change and constitutes policy that advances structural quality in preschools. At the same time, the main test of the reform will be in the success of its implementation and the ability to ultimately translate policy into actions that change current practice in preschools so that they work to advance children from disadvantaged families.

At the Ministry of Education, it would appear that the most recent reforms give preference to universal policy targeting everyone in the population, over progressive policy that gives preference to disadvantaged groups. Such preference is reflected in the third aide reform, the free education for age three reform, and in the New Horizon reform that apply equally to all strata of society. Daycare policy is more progressive and this is expressed in the sliding tuition scale based on parental income. At the same time, because there is a daycare admissions test that stresses employment, policy does not necessarily include the most disadvantaged groups in Israeli society.

The review shows that the policy of the two ministries involved in this arena have a harder time providing solutions in the Arab sector. Daycare centers are not spread throughout the Arab localities in a way that corresponds to their population. Compared to the Jewish population, in

the Arab sector, significantly higher percentages of children do not attend the preschools under the MOE's responsibility (or start them at a later age); this is especially the case in East Jerusalem and in the Bedouin localities. Beyond the simple significance of the difficulty of providing services to a group in Israeli society, the difficulty has importance due to the poverty that characterizes the Arab sector and because many of the disadvantaged children in Israel are Arab.

With respect to daycare policy and preschool education policy, it would appear that there is room to consider how the education system can provide a solution for the needs of children from disadvantaged families. Policy in this context must combine progressivity, that is, transfer of earmarked resources to disadvantaged populations, with the quality necessary for improving achievements of children from disadvantaged families. Work with disadvantaged populations challenges both the domains since in daycare centers, the curriculum and the staff's professional development often depends of the individual center, and in preschool, the policy's universal basis is very strong. This issue can be challenging for policymakers in both ministries.

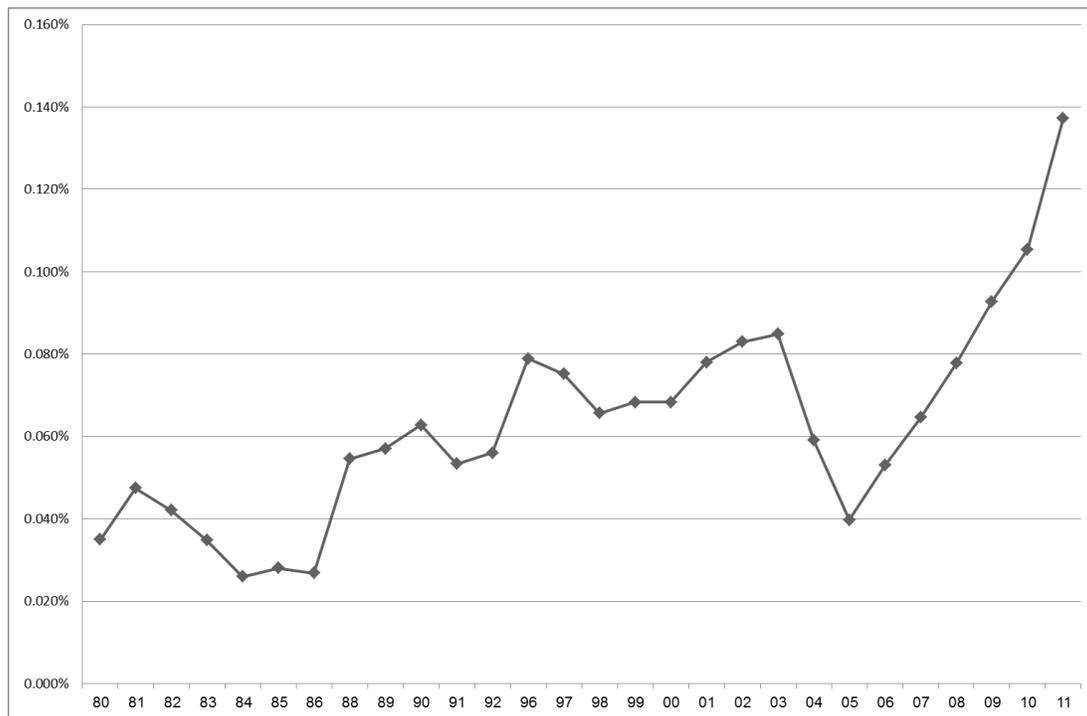
Another common denominator of early childhood policy in general is the absence of research that examines impact and causality, particularly with respect to broad-based reforms. With respect to daycare especially, there is also a lack of basic data needed for decision making processes. Research on these two age groups can benefit from creation of a substantial database, available for the use of researchers and that can be cross-referenced with data from databases belonging to the National Insurance Institute, the Central Bureau of Statistics, and RAMA.

With the completion of this literature review, we can mention two steps that can bring about a change in the field of early childhood education in Israel. The first is the effort by the early childhood coalition in the Knesset, led by MK M. Trajtenberg and MK E. Alalouf, to promote the creation of an early childhood authority that would take on the responsibility for regulation in the field and for coordinating between the different players. The second step is transferring responsibility for daycare centers from the Ministry of Economy to the Ministry of Education, which has, once again, appeared on the political and public agenda. These two steps, especially if they were accompanied by budgets earmarked for improving the quality of services in the two education frameworks, can contribute to increasing equality of opportunities and hopefully, these will culminate in action.

## Appendices

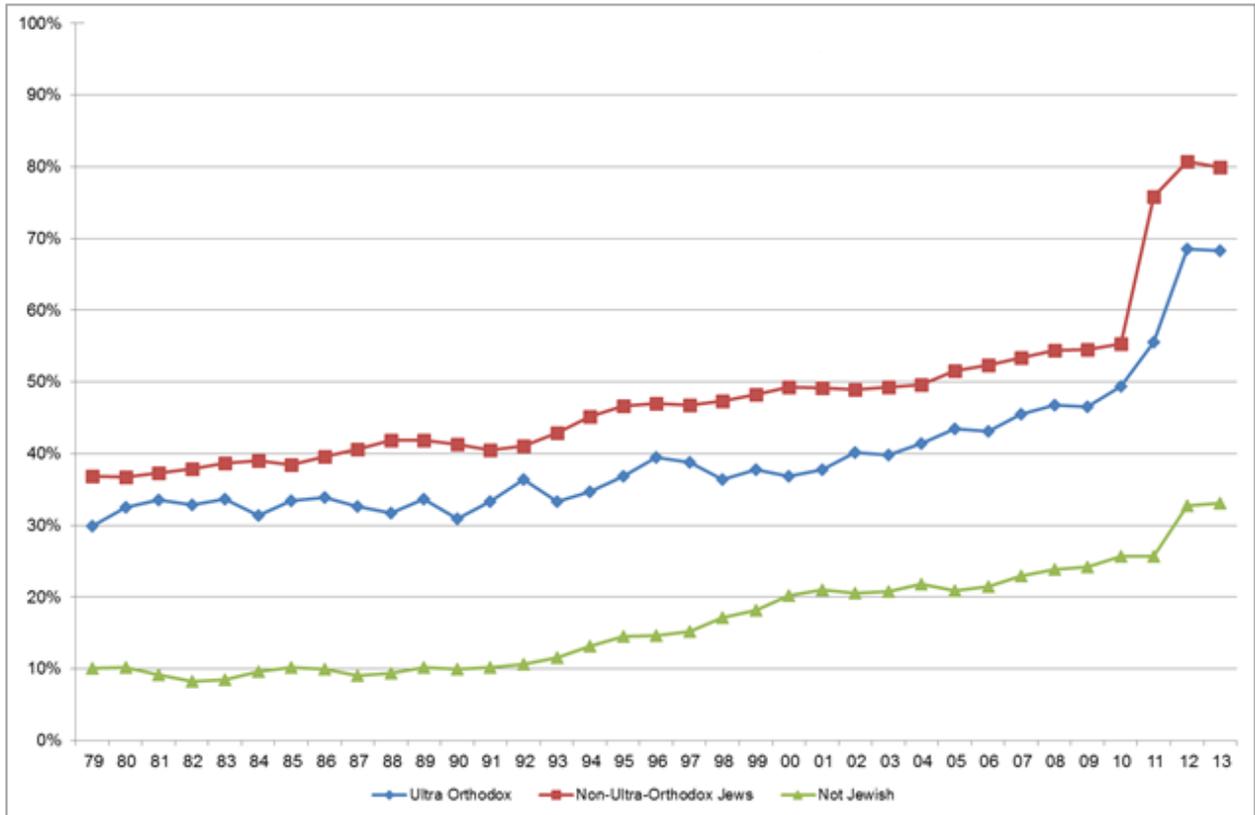
Source: OECD, 2011, <http://www.oecd.org/education/school/48623811.pdf>

Figure 14 – Budget for the Daycare Centers and Home-based Nurseries Division as a Percentage of the GDP, 1980-2011



Source: Ministry of Finance, 2013; Budget books 1980-2005

Figure 15 – Percentage of Employed Women, by Sector, 1979-2013



Source: Data for 2010 – Taub Center (personal communication); data for 2011-2013, Central Bureau of Statistics, 2014.

## Time Line – Education Policy in Israel for Ages Birth to Three

**Pre-State period** – Creation of daycare centers by women’s organizations

**1948** – Responsibility for daycare centers given to welfare minister, alongside the Labor Ministry’s authority to place children of working mothers

**1965** – Daycare Supervision Law 1965 (not implemented)

**1977** – Welfare Ministry and Labor Ministry merged into Ministry of Labor and Social Affairs

**1984** – Shetreet Committee – expansion of the standard in daycare centers (increasing the number of children per group with no change in the number of staff)

**1986** – Responsibility for daycare centers transferred to the “Women’s Employment Unit” in the Ministry of Labor and Social Affairs (transfer of responsibility from the Social Affairs Division to the Employment Division)

**1987** – Committee on Standards for Daycare Centers, led by Professor Miriam Rosenthal (the first standards committee); its recommendations were not implemented

**2003** – Ministry of Labor and Social Affairs dismantled, creation of Ministry of Industry, Trade and Labor; responsibility for daycare centers remained with the newly created ministry

**2007** – Standards Committee for the Operation of Education Frameworks for Infants, led by Professor Miriam Rosenthal – recommendations were not implemented

**2010** – Toddlers at Risk Law (Right to Daycare) 2000 – grants the right to a place in daycare for all at-risk toddlers

**2010** – Proposed Supervision of Daycare for Toddlers Bill, 2010; bill was dropped prior to the second and third readings in the Knesset despite government decision 4088 which budgeted for implementation of the law.

**2011** – Authorization by head of Daycare Centers and Home-based Nurseries Division to collect tuition for daycare

**2011** – Small-scale improvement in daycare center standards

