Chapter 13.
Conclusions and Policy Recommendations

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With the general Israeli public and the country's decision-making echelon as its target, this book summarizes several decades of research on the stubborn inequality plaguing the Israeli education system, its causes, and how education policy can serve to bridge the gaps or to perpetuate and widen them. In the preceding chapters, we examined the substantial, ongoing inequalities in educational achievements among socioeconomic groups and noted that inequality levels have been dropping, particularly between Arab Israelis and Jews. We look at the principal explanations for educational inequality, from early childhood through higher education, and point to a number of family, societal, and school-based mechanisms that contribute to these disparities, alongside current data on educational inequality in Israel. We show that, even in an era when the population as a whole enjoys full access to educational frameworks from preschool through high school, and when most of the educational cost burden is shouldered by the state, there are still major differences among population groups in terms of the educational achievements of children and teens. These differences become even more significant in the transition to higher education which is voluntary and carries a substantially higher individual financial burden than earlier educational stages. The forces driving the perpetuation of social and educational disparities, at the micro level, are the socioeconomic status and cultural capital of students' families. At the macro level, the disparities are perpetuated by the distribution of resources and opportunities among population groups, and the degree of national and public commitment to bridging gaps. Research indicates that families utilize their cultural, social, and economic resources to ensure the intergenerational transmission of educational advantages. Yet these resources are not distributed equally in our society. The extensive research of the past few decades shows that families of high socioeconomic status, and those belonging to dominant

ethnic, religious, and national groups, enjoy more abundant resources that allow them to help their children get ahead, even when the available education services are theoretically equal and free of charge. Moreover, families tend to see the education system as a competitive arena, and they strive to ensure that their social status within that system is passed on to the next generation. Thus, the education system at its various levels faces strong social forces that work to perpetuate social inequality. Nevertheless, the system's ability to contend with these forces should not be discounted, and there are major examples of success in this regard.

Knowing the influence that family has in academic disparities should not diminish policy maker aspirations to bridge educational gaps; rather, it should strengthen the commitment to developing policies that target the gaps. In this concluding chapter, conclusions from earlier chapters are highlighted, and the many and varied ways in which educational policy can promote educational opportunity for the children of parents belonging to Israel's less-well-off social groups are noted.

The discussion is divided into two main perspectives: macro and micro. The macro perspective discusses decision making at the Ministry of Education level that carries with it broad implications for the system as a whole. The micro perspective refers to the decisions made by the schools themselves — principals and teachers. Obviously, this is not a clear-cut division. For example, school policy is directly affected by Ministry of Education policy; by contrast, Ministry of Education decisions are often implemented differently at different schools, often in ways that conflict with the original intentions of national-level decision makers. Nevertheless, dividing the discussion into macro and micro allows us more clearly to direct our conclusions toward the appropriate agencies and actors in the educational arena.

Conclusions for decision makers at the level of the Ministry of Education and other government ministries:

1. The importance of affirmative action in budgeting

Despite awareness of the importance of narrowing achievement disparities, the budgets currently allocated, directly, or indirectly, toward advancing low-income populations is below the minimum needed to reduce existing disparities substantially. The funding allocated for this purpose is determined mainly by what is available to the system, the degree to which the leadership is committed to social justice and their beliefs of what it entails, and the amount of political pressure exerted by various social forces. Though

we may be unable to define what would enable students from the lower socioeconomic groups to advance and narrow academic and educational gaps, we can say with some certainty that, without reasonable funding, this will be an impossible task. Thus, there is a need to fundamentally change the Israeli budgeting system and improve the method currently employed in the country's primary and middle schools. The change involves a budgeting system based on a "differential basket of services per student," and its implementation throughout the education system, including the informal frameworks that the Ministry of Education helps fund. The differential basket of services gives substantial budgetary priority to students from the lower socioeconomic groups. This basket of services is based on the current school Nurture Index, and will prioritize educational institutions that also practice social integration. In contrast to the differential standard method currently in use, which refers solely to teaching hours, this differential-basket-of-services budgeting will relate to all components of educational spending; educational services will be provided at appropriate levels that meet the needs of the stronger socioeconomic groups generally, but with preferential provisions of a level and scope that will allow students from weaker socioeconomic backgrounds to reach achievements similar to those of their stronger peers.

2. The importance of early childhood investment

Achievement and learning ability gaps between children from different socioeconomic backgrounds emerge in infancy, long before children enter the education system. Young children being raised in environments of chronic economic distress are liable to suffer from ongoing deprivation in terms of positive sensory stimulation and enriching experiences, which, in turn, may result in suboptimal development of cognitive, social, and emotional capabilities. Children who are not exposed to positive learning opportunities and sensory stimulation experience greater difficulty compensating for earlier deprivation in adulthood.

In this book, several policy options for addressing the kind of economic distress that affects the development of young children's academic abilities are proposed. Firstly, access to quality care in day care centers and family child care frameworks must be increased. Studies show that high quality early childhood education, especially for children from the lower socioeconomic groups, may dramatically improve their futures in terms of education, employment, and health. The caliber of Israeli early-childhood education may be improved by raising participation rates, reducing staff-to-child

ratios, increasing the amount of time that children spend in the relevant educational frameworks, and investing in quality training for caregivers, ensuring that they have the necessary skills and knowledge for work with this age group. Secondly, developing community-based programs for parents, focused on parents of young children from weaker socioeconomic backgrounds are recommended. These programs offer parents information about how to encourage their children's cognitive development, help them exercise their rights and gain access to housing and healthcare services, promote their integration in the labor market, and assist them in managing their family finances. Finally, in order to more comprehensively and effectively address the profound economic distress that afflicts so many Israeli children, the following is proposed: increasing the income support benefit for families with young children living in poverty while making it easier for such families to access and take-up these benefits; increasing and differentially distributing child allowances; and raising the negative income tax for parents of young children who participate in the labor force but whose incomes are low. These policy measures, which focus on the children of low-income families during a critical developmental period, could, over the long term, diminish the inequality between socioeconomic groups that emerge during early childhood.

3. Reducing class sizes — does the outcome justify the expenditure?

Reducing class sizes is a popular measure that, for the general public, appears to have major advantages. However, reducing the number of students per class is an expensive policy that necessitates hiring many more teachers, some of whom may not meet professional standards. Moreover, research has not determined that reducing class size alone will lead to improved student academic achievements. It should also be stressed that, if teaching methods that optimize smaller class sizes are not introduced, and if teachers continue to use pedagogical models from the past, the chance of improving student achievements are exceedingly low. Decisions entailing large budgetary investments – a category into which class size reduction falls — have to take into consideration consequences that go beyond the immediate academic-educational sphere. In Israel, it is actually the more affluent students who study in larger classes, while students from low-income populations already study in small classes. Thus, universal class-size reductions could potentially have a regressive effect, that is, it could end up serving those belonging to the higher socioeconomic groups. Another possible unintended outcome of

class size reduction would be diminished availability of resources for other important reforms, such as differential education-system budgeting (to benefit low-income students).

In light of these considerations, and based on the findings of studies conducted on this topic, there is justification for continued reduction of class sizes in schools serving lower-income populations, especially the Arab Israeli population, and for focusing these reductions on the primary-school level. Overall, this measure should be accompanied by pedagogical development and teacher-training modifications, to ensure that there is optimal gain from the smaller class sizes.

4. Risks associated with privatization and parental choice in education, and how to mitigate them

Parental choice and privatization of school operations are currently regarded by some as an important means of improving education systems. The popularity of this approach is based on the assumption that the fundamental principles of free market theory apply to the sphere of public education. As shown in this book, this is a simplistic assumption that does not address the human, organizational, social, or political complexities that bear on education. Research has generally demonstrated no clear advantage to private or independent schools receiving public funding over regular public schools in terms of academic achievements. Nor has it demonstrated that the system as a whole improves over time when the public "monopoly" gives way to a competitive environment combining both public and private systems. By contrast, studies have consistently linked privatization and parental choice with rising inequality and greater social segregation. Over the last few years, the Ministry of Education has been promoting a program that allows parents to choose primary schools within the public school system, in an attempt to address the phenomenon of parents establishing their own new schools. The Ministry recently updated, via a Director-General's Circular, secondary legislation aiming to regulate the privatization and parental-choice mechanisms currently in place in Israel's education system. In our view, this does not solve the problem; what is needed is legislation that prevents discriminatory measures, such as the lack of clear limits to parental payments, socioeconomic screening, employing teachers outside of the framework of collective labor agreements, and the like. The current situation, in which legislation lags behind practice, makes it very hard for the Ministry of Education to set clear policy, defend it in the courts, and enforce it. Schools recognized as unique schools which are allowed to

enroll students beyond their catchment area now charge exceedingly high parental payments. This is a situation that does not exist in most developed countries, and its social-inequity consequences are evident. Screening students based on tests and interviews is very common in Israel, and constitutes a mechanism by which current inequalities are perpetuated and exacerbated. Additionally, any comprehensive discussion of parental choice in education and public funding for independent schools should also address the issue of transportation — ensuring that school busing is publicly funded, so that the right to choose includes equal accessibility.

5. The price of standardized tests and the potential embodied in measurement and assessment that serve the schools and the education system

Research on the use of standardized tests in various countries has shown that these tests have many negative consequences for learning, teaching, and educational administration. Originally, the tests were thought to be useful in promoting student achievements and eliminating academic disparities, but these hopes have failed to materialize. The Meitzav comprehensive standardized exams (Hebrew acronym for Measurement of School Growth and Efficiency) have now been administered in Israel for some 15 years. Research on how these tests have affected Israel's education system has been limited, but there is sufficient evidence to suggest the same set of negative impacts found in other countries. In addition, there is no real need for such large test samples which are very costly and have pervasive negative effects on schools. It is recommended that the Meitzav exams should be conducted on a small representative sample of schools. The tests should, by design, provide Israel's educational leadership and general public with current information on student achievements in most study subjects, on other educational and social issues, and on the inequality situation in these areas, while making it possible to monitor longitudinal trends. This kind of data collection will also serve to promote the development of Israeli educational research which, at present, lags behind that of other developed countries due to the lack of comprehensive longitudinal data. At the same time, it will reduce pressures from the Ministry of Education and competition between schools with the publication of test results that Israeli schools currently experience. Teachers and principals may be better able to focus on generating real academic improvement, rather than merely strengthening achievements as measured by narrow indices.

In contrast to the national Meitzav exams, the school-administered Meitzav exams have real potential to serve as a basis for data-based decision making in the schools. At the same time, the education system must take concrete steps to ensure that teaching personnel know how to employ data in their work — via teacher training and school-based professional development frameworks. Besides the Meitzav exams, Israel has other major sources of information that are vitally needed by the education system but are not currently being properly utilized in the planning of educational policy. Some of these sources lie within the Ministry of Education itself, while others can be found in such institutions as the IDF (Israel Defense Forces), the Henrietta Szold Institute, the National Institute for Testing and Evaluation (which administers the psychometric exams), and the Hadassah Institute. We feel that the data collected from these institutions should be processed and analyzed as a means of systematically monitoring developments and fluctuations with regard to educational inequality. Obviously, any personal data obtained via these exams would remain confidential.

6. On the complexity of social integration in the schools, and the need to curb segregation

Some will argue, not unreasonably, that in Israel one can hardly imagine integration between the four "tribes" mentioned by President Rivlin in his well-known 2016 speech. Haredi (ultra-Orthodox Jews) and Religious Zionist Jews segregate themselves in their own education systems because they want to shield their children from secular cultural influences. Many Jewish and Arab Israelis oppose the idea of sending their children to mixed schools, due to mutual prejudice, hostility, and fears of assimilation. These concerns are so deep-seated that it is hard to picture wide integration between the tribes within the education system, though some early signs of integration in the [secular] state education schools are discernible. Within the education sectors there is also considerable segregation based on socioeconomic groups, at levels that are among the OECD's highest. Within the state education system, there are socioeconomically selective schools and schools whose students come mainly from weaker backgrounds. In the state-religious education system, there is considerable segregation between students of different social classes, a situation that is particularly noticeable at the post-primary level, where selective institutions (yeshiva high schools for boys and *ulpanot* for girls) operate alongside schools that serve students whose socioeconomic group and academic achievements are relatively low. In the Arab Israeli sector, there are quite a few church-based schools and several selective institutions that cater to the Muslim middle class.

While the demand for separate education systems on the part of religious and other ideologically-oriented groups is reasonable and can be accommodated and respected, socioeconomic segregation is not legitimate, as it perpetuates socioeconomic inequality across generations. We should, therefore, encourage the various educational streams and schools to diversify their student populations at the very least on a socioeconomic basis.

7. Improved recruitment and training of teachers serving weaker populations

Although teacher quality is regarded as an important factor in addressing educational disparities, there is, at present, no broad consensus among scholars regarding either the indices by which instructional quality should be measured, or how teachers should be trained. In Israel, there has been no research on how teachers affect student scores on standardized tests, but there are data indicating that teachers with more years of experience and higher levels of education (advanced academic degrees) tend to teach in schools that serve students from advantaged social backgrounds. Study findings also suggest that teachers with higher psychometric exam scores tend to work in localities whose socioeconomic profiles are high. Thus, it appears that children from middle- and upper-class backgrounds benefit, on average, from the availability of teachers whose background data would seem to give them an advantage. Reversing this pattern necessitates state investment and incentives to ensure that well-qualified teachers are hired to work in schools serving weaker populations. In this book, we look at special training programs that recruit candidates with higher academic achievements and greater motivation for social change and social justice than the candidates who participate in traditional programs. These special programs provide new teachers with focused and professional mentoring, facilitating their integration in schools that serve low-income populations. One major area in which we recommend continued development is that of support for teachers employed in these kinds of schools, from the start of their careers. Gaining a foothold in the profession is challenging for all teachers; when new teachers are also faced with relatively low-achieving students, they need more intensive support, especially in the pedagogical sphere. Given the dearth of data and evaluation research in the field, we recommend that mapping studies be conducted, to identify the advantages and disadvantages of the existing professional development programs. We also recommend intervention studies, in which leading researchers provide schools with guidance and mentor principals, enabling them to initiate and

implement changes in a way that will benefit new teachers in their schools. Later, the findings of these studies should be leveraged for a comprehensive effort aimed at school principals across the country, focusing on how best to support, advance, and improve the work of teachers at the beginning of their careers.

8. Policy to address higher-education disparities

Broader access to higher education is not enough to close social and economic gaps; efforts are necessary at earlier stages, when the state has substantial influence as the primary operator of educational services. Nevertheless, a study that looked at inequalities in access to higher education showed that higher-education accessibility gaps between Jewish and Arab Israelis are the widest of all, and do not stem solely from cumulative educational gaps. Moreover, there is a large disparity between Jews and Arab Israelis in terms of enrollment in study programs leading to high-paying jobs; this gap is likely related to the structure of Israel's labor market and to the likelihood of young Arab Israelis successfully integrating in it. The problem of labor market integration is also relevant to Israeli Arab students who study in Jordan or in the Palestinian Authority.

Another finding of the study is that students from marginalized groups drop out of academic programs at higher rates, and may take longer than usual to complete their studies. Arab Israeli students, for example, are particularly affected. Accordingly, we feel that consideration should be given to offering *mechina* (academic preparatory) programs even to those Arab Israeli candidates who meet the admission requirements of academic institutions. Such programs would help those admitted to university to improve their Hebrew and English-language skills, and would ease their acclimation to study institutions aligned with the Jewish majority's cultural hegemony. Large differences were also found between academic institutions and study majors in terms of dropout rates and time needed to complete their degree. The major findings are exceptionally high dropout rates at teachers' colleges and in engineering studies at public colleges. These findings require in-depth attention, and policies and intervention programs should be developed in order to curtail the phenomenon.

9. Negative consequences of student tracking and the stratification of fields of study on gender, class, and ethnic disparities

The purpose of student tracking is to enable them learning according to their abilities and areas of interest. However, many studies have demonstrated that tracking increases inequality, as socially and ethnically disadvantaged students are channeled to the less rewarding programs. In Israel there have been unsuccessful attempts to moderate or eliminate tracking. Educational research indicates that efforts aimed at reducing inequality spark counter-reactions that make it hard to achieve this goal. Indeed, attempts to eliminate tracking result in less-formal kinds of separation, which, though not formally defined as tracking achieves similar results. Thus, prohibiting tracking does not prevent actual sorting of students. This being the case, proposed efforts to substantially reduce the inequality that arises from student tracking may be perceived as naïve and impractical. On the other hand, a pessimistic approach that sees no use in trying to avoid student tracking due to the practical impossibility of such avoidance, is too radical and inappropriate. In our opinion, efforts should be made to eliminate or moderate tracked frameworks while keeping in mind that alternative frameworks actually maintain tracking.

Although girls' academic achievements are currently higher than those of boys, discussions of gender inequality still tend to focus on boys' advantage over girls, with special attention to the gender gap in fields of study at the secondary and higher-education levels — males' enrollment in STEM subjects and female' in humanities and the social sciences. This aspect of gender inequality is related to the stratification of fields of study. This stratification is commonly accepted, and the high prestige of mathematics and the sciences seems almost "natural." This trend is now being reinforced with the increasing emphasis on studying advanced mathematics and sciences in high school. The stratification of fields of study is largely a result of teaching methods and demands on students. Subjects regarded as "easy" and less demanding attract weaker students, resulting in a "magic circle" where the perceptions of a field of study is reinforced by the scholastic abilities of the students who study it, and vice versa. Although the tendency of girls to avoid studying advanced mathematics, physics, and computer sciences generates concern, the education system, education researchers and the public at large, do not seem particularly troubled about the paucity of boys engaging in higher-level humanities and social sciences studies. Similarly, although girls' mathematics and science achievements are, today, hardly

lower than those of boys, much attention is devoted to girls' inferiority in these fields. By contrast, boys' inferiority in fields that require verbal ability, as documented in numerous studies, is not perceived as a cause for concern. This is at least partly due to the low prestige of the humanities and the social sciences. An effort should be made to bridge the prestige gap between fields of study, especially at the high school level — by, among other things, encouraging outstanding students, boys and girls alike, to engage in high-level humanities and social science studies, and to set higher standards for the students who pursue such studies.

10. Academic and vocational tracks

Technical-vocational education (TVE) includes several tracks that substantially vary. The engineering track, which absorbs 50 percent of TVE students, does not differ from the scientific-academic track. The current debate over TVE relates mainly to the technological and vocational tracks, which are comparable to the non-matriculation-oriented vocational training of the past. Those who support the existence and expansion of these tracks argue that they have the potential to reduce inequality, as they absorb students unsuited to academic study and ensure them quick labor force entry. It is hard to argue with these claims. The problem with these tracks is that those who enroll in them usually belong to disadvantaged groups. Channeling these students into tracks that offer limited opportunity perpetuates existing inequalities. We recommend encouraging these students to pursue matriculation-oriented tracks, with consideration for their learning difficulties. Experience with Mabar (Hebrew acronym for "regular matriculation track") and Etgar ("Challenge") classes shows that even students with academic difficulties are able to contend with the matriculation exams. Despite criticisms that these classes set students up for failure, neither enabling them to earn the matriculation certificate nor providing training for the labor market, initial findings suggest that the matriculation eligibility rate among students in these classes does not significantly differ from that of students in other academic tracks.

11. Pedagogical interventions to bridge gaps in the classroom and in the school: What works?

Pedagogical methods can have a major impact on the educational opportunities of students from weaker socioeconomic backgrounds and minority groups. Among the pedagogical approaches that we reviewed,

two stand out for the existence of large, well-established bodies of research testifying to their potential for reducing academic disparities: cooperative learning and individualized ("one-on-one") tutoring. These two approaches have proven themselves in a wide variety of studies, in different parts of the world and in different cultures, at all stages of education and in different school subjects. Both entail a relatively modest financial investment, especially compared with tech-mediated learning and after-school academic assistance programs (in extended-school-day frameworks, for instance), whose cost is very high and whose effectiveness has been shown to be low. Cooperative learning in small, heterogeneous groups could replace ability grouping, thereby reducing the inequality associated with the latter method. This pedagogical approach entails teacher training and guidance, as well as greater flexibility in organizing study hours and in selecting study materials. Optimal implementation therefore requires an attitudinal shift on the part of school principals and Ministry of Education personnel (supervisors, district managers, and the like). It is important that decision makers in the Ministry of Education recognize the advantages of the approach and work to promote it in the schools.

As part of the Ofek Hadash and Oz Le'Tmura reforms, teachers are required to engage in "individual teaching hours," in addition to their regular classroom teaching hours. However, "individual teaching hours" are not defined by the Ministry of Education or implemented in the schools in ways specifically oriented toward bridging academic gaps. Rather, they are used for a wide variety of academic and social purposes. We recommend that the individual teaching hours be regarded as a major tool for narrowing gaps, and that they be so defined in educational policy. We also recommend that a large portion of the individual teaching hours be devoted to advancing low-achieving students via "one-on-one" methods, focusing on their knowledge gaps. Consideration should, furthermore, be given to budgeting additional individual teaching hours for schools that serve socioeconomically weak populations. Yet another approach worth mentioning here is that of culturally relevant pedagogy, based on student-teacher dialogue, cooperation, and the development of critical thinking. This approach views the culture and life experience of students and their families as a major source of empowerment and academic motivation. Culturally relevant pedagogy has been proven to advance minority students in the United States. It is important that decision makers be aware of this pedagogical approach, and that culturally relevant teaching become part of the policy discourse on educational inequality in Israel.