

# Chapter Abstracts

## Chapter 2.

# Privatization, Choice, and Equality in Education

A major characteristic of modern education systems is the state's commitment to their funding. This commitment aside, however, the last few decades have seen some countries withdraw from the full public model, in which the state bears sole responsibility for the provision of education services to the entire student population. Alternatives to the full public model include: the voucher system, which allows government funding of education services in private schools; charter schools, which are publicly funded and operate within the public system but are run by NPOs or private companies; and special schools established within the public system in order to diversify the study programs and to promote specific fields of study, such as the sciences or arts. These alternatives make the issues of parental choice of schools, and the screening mechanisms employed in school admission processes, much more crucial than in the past. This chapter presents examples of changing policies on school privatization, and the development of student selection and screening processes in countries with different social and political profiles: the United States, Sweden, and Chile. Our discussion of these examples will center around the question of how privatization and screening and selection mechanisms impact inequality between students from different social groups. The chapter then examines the relevant changes underway in Israel, looking at their effect on educational inequality.

## Chapter 3.

# Tracking and Its Impact on Inequality in Education

Educational tracking is mostly carried out in middle-school ability groupings, and in the division to academic and technical-vocational education (TVE) in high school. Over the years, the size of academic and technical-vocational programs as well as attitudes toward them have changed in both the Hebrew and Arab education systems, although in different directions. After an initial period of growth within Hebrew education, there was a considerable drop in participation in this track, following heavy public criticism. Arab education, which was early on characterized by low participation rates in TVE, experienced a period of growth and currently participation rates are higher than in Hebrew education. The decline in participation rates in TVE in Hebrew education was accompanied by new programs in the academic track, aiming at integrating students from weaker socioeconomic backgrounds with learning difficulties. The past few years, though, have seen a renewed push by the Ministry of Education to set new goals for technical-vocational education. Those in favor of expanding technical-vocational education claim that it will narrow gaps between periphery and center and between different socioeconomic groups; that it will help the economy which is currently facing shortages in workers trained in technical-vocational skills, and will also strengthen education towards work values. They also claim that such training is preferable to the alternative programs offered in the academic track. Those opposed claim that TVE actually perpetuates inequalities, despite the recent programmatic changes, since the tracks that offer the most limited opportunities mainly absorb underprivileged populations.

## Chapter 4.

# Segregation and Integration of Ethnic Groups and Social Classes in Schools and Classrooms

The Israeli education system is characterized by a large degree of separation between students on the basis of sector, religion, ethnicity, gender, and socioeconomic group. This chapter discusses integration and separation between students and population groups within the education system. Some view integration of students from different socioeconomic groups as an important tool for strengthening weaker students and bridging education gaps. An additional argument in favor of integration is that bringing different groups together in schools and classrooms fosters mutual understanding and improves relations between the groups. Others regard integration as an obstacle to effective teaching, as teachers have trouble handling classes that are heterogeneous in terms of student learning abilities. There are also socioeconomic groups that oppose integration due to concerns that integration may compromise their children's achievements or religious education. This chapter looks at various aspects of educational integration. First is a discussion of the scope of stratification and the degree of integration in Israeli schools between religious groups, between groups of differing religious observance levels, between sectors, and between socioeconomic groups. The second part of the chapter gives a brief overview of the beginnings of the educational integration idea. The third section looks at educational integration policy in Israel, while the fourth section examines the advantages of integration and its potential utility in bridging education gaps and improving relations between population groups.

## Chapter 5.

# Resource Distribution in the Education System

This chapter looks at the processes and rules determining the scope and resource allocation by the Ministry of Education, the local authorities, households, and other agencies to formal education in Israel, from preschool through Grade 12. We also examine how resources are allocated within the education system and among different population groups. The chapter presents the consequences and outcomes of the budgeting rules, with a focus on disparities in the amount of funding available to the various parts of the system; it also offers a summary of the historical trends and developments that have led to the current situation.

The main conclusions are that Israel's education system is characterized by large gaps both between the Hebrew and Arab education systems, and within the Hebrew system itself between its various educational streams. However, these gaps have narrowed somewhat in recent years, especially between the Hebrew and the Arab education systems. The factor with the greatest impact on both funding amounts and disparities is the Ministry of Education. It is, therefore, the Ministry that should bear most of the burden of narrowing the gaps. Ultimately, it would seem that the most effective tool for eliminating disparities is a differential basket of services per student. This basket of services should be available at all educational levels, from preschool through high school and it should include all of the elements necessary to provide all students with a basic education, and should be sufficiently large to ensure education at a level that will satisfy most parents and convince them to stay in the public education system, rather than switching to private systems.

## Chapter 6.

# Is It Worthwhile to Reduce Class Sizes?

**This chapter was written with Reut Shafir**

Recent years have witnessed fierce debate in Israel on the issue of class size with many arguing that large classes impair their students. In their view, a large number of students per class makes it impossible for teachers to give each student sufficient attention, and this in turn harms students' chances of success. This view sounds reasonable and persuasive, but empirically it is not at all clear whether class size actually affects student achievements, or how. This question has generated great interest among researchers, education professionals, and lawmakers, but no unequivocal answer has yet been found. Given the extensive resources needed to reduce the number of students per class, it is important to examine the relationship between class size and scholastic achievement, class climate, and other factors that could potentially affect students' futures, such as higher education, income levels, and health status.

This chapter looks at whether reducing the number of students per class affects short- or long-term academic achievement, student-teacher relations, the educational climate in the classroom, and teachers' work satisfaction levels. The relevant Israeli and non-Israeli research literature indicates positive outcomes in the short and long term, on condition that the measure was taken in the lower primary grades; greater improvements were found when class size reduction measures targeted students from weaker socioeconomic backgrounds. Another important condition is that class size reduction be accompanied by other pedagogical measures, such as appropriate training for teaching personnel, and the adoption of pedagogical methods and curricula suited to the new environment.

## **Chapter 7.**

# **Teacher Quality: Recruitment, Training, and Professionalization of the Teaching Force**

**Eran Tamir**

There is general consensus among education researchers that teacher quality is the factor with the greatest impact on student achievements. Yet, many studies carried out in the United States show a direct relationship between teacher quality and work conditions and salaries and an inverse relationship between teacher quality and the share of disadvantaged students in the schools. Thus, the tendency of schools serving weaker populations to employ young, less-experienced, and generally less-effective teachers is stronger than that of schools serving middle- and upper-class populations. This chapter primarily addresses the accepted (but narrow) conception of teacher quality, in which quality is assessed on the basis of measurable student achievements on standardized tests, in English, science, and math. Efforts have been made in the past and are being made today to attract quality teachers to low-income periphery areas, by means of salary incentives and preferential conditions. Additionally, training programs now proliferate that try to address these programs through the recruitment, placement, and guidance of quality teachers in schools serving weaker populations. This chapter looks at the positive relationship between education policy on teacher training and professional development and teacher quality, and at how teacher training and professional development relate to status inequality.

## Chapter 8.

# Testing as an Education Policy Tool for Narrowing Gaps

Exit or graduation exams, such as Israel's bagrut (matriculation) exams, have developed along with modern education systems. These exams constitute formal proof that an individual has attained a specified level of education. By contrast, the past few decades have witnessed the adoption, by education systems around the world, of standardized tests, whose purpose is to monitor student achievements. This is based on the idea that schools should be accountable to their students. A major argument in favor of standardized tests is that they are an important tool for monitoring student achievements and inequalities in student achievement. Those who ascribe to this view feel that the information gathered through standardized tests allows data-based educational decision-making, advances teaching and learning on the basis of clear standards, pressures schools to improve the achievements of weaker students, and generates inter-school competition that benefit the entire system. Opponents of these tests stress their negative consequences, such as increased pressure on principals, teachers, and students, the diversion of resources to tested subjects at the expense of other subjects, a focus on preparing students for tests rather than on in-depth learning, and various forms of testing fraud. The research literature is also divided on whether standardized tests contribute substantially toward reducing inequality. At the same time, there has been a lengthy debate about the effects of exit exams. On the one hand, it is felt that they set clear learning objectives for teachers and students (especially weaker students), and serve as a binding framework for knowledge acquisition in different subject areas. On the other hand, they are also thought to have negative consequences: the limiting of curricula to tested subjects, and a focus on rote learning rather than on developing complex, critical thinking skills. Studies also show that extensive use of exit exams may increase the high school dropout rate. This chapter will provide an up-to-date review of research on standardized tests and exit exams, focusing on their advantages and disadvantages from a policy perspective oriented toward bridging educational gaps.

## Chapter 9.

# Pedagogy as a Tool for Reducing Educational Inequality

The main setting in which students encounter the content, skills, and values that the education system seeks to transmit to them is in the classroom. Classroom teaching and learning involve a wide variety of activities, and are characterized by different types of interactions – between teachers and students, between students, and between teachers and students and the study material. Research suggests that education policy has only a limited impact on classroom activity; teachers actually enjoy great independence in terms of how they carry out their work. When considering the issue of inequality, it is important to remember that classroom activity is often based on knowledge and skills that students bring with them, and is, therefore, affected to a considerable degree by larger, societal inequalities. This chapter reviews current knowledge about the ways in which pedagogy shapes learning opportunities within the classroom, and thereby helps perpetuate, reduce, or increase student inequalities.

## Chapter 10.

# The Importance of Early Childhood Education

**This chapter was written with Isaac Friedman, John Gal, and Dana Vaknin**

Studies show that disparities in cognitive ability between members of different socioeconomic groups begin to appear at very young ages, well before children enter the education system. Based on these and other findings, researchers have come to understand that the academic achievement gaps found among children of different socioeconomic backgrounds emerge in early childhood; some argue that certain traits necessary for academic success develop even before babies are born. The aim of this chapter is to highlight important mechanisms that may explain the academic achievement inequalities that exist among Israeli students, gaps at levels that are among the developed world's highest. The chapter includes a literature review on two types of environmental factors that affect early child development and future academic achievement: stress and sensory stimulus. The researchers argue that children growing up under adverse economic conditions are liable to suffer from chronic stress and from lack of exposure to stimulating and enriching experiences – factors that may, in turn, subject them to delayed brain and cognitive development – compared with children from stronger socioeconomic backgrounds. Thus, economic distress experienced in the critical developmental period of early childhood may depress cognitive and academic achievements.

## **Chapter 11.**

# **Social Inequality in Higher Education in Israel: A Multidimensional Perspective**

**This chapter was written with Oded Mcdossi**

Since the mid-1990s, Israel's higher education system has undergone far-reaching changes, including expansion processes, increased variety of educational institution types, and privatization. The chapter begins with a brief overview of theoretical arguments and studies on social gaps in higher education, in Israel and in other countries. It then examines inequality in the pursuit of higher education in Israel, taking a multidimensional approach and employing current data available to researchers in the field. The analysis of existing disparities focuses on the higher-education entry stage, on the economic value of higher education, and on the likelihood of completing an undergraduate degree within the standard time frame for each study major. Findings indicate that, alongside rapid growth in the student population, Israeli higher education is still characterized by large disparities between different population groups, especially between Jews and Arab Israelis.

## Chapter 12.

# The Gender Gap in Education

Most of the current discourse on the gender gap in education focuses on girls' inferiority in math and science whereas, in fact, girls' achievements are not inferior to boys', and, at times, they even outperform them. This is true for the entire education system, but is particularly evident in Arab education, where girls' advantage is straightforward. However, boys' inferiority in language skills, which is consistent and more severe than girls' inferiority in STEM, generates almost no interest among policy makers or education researchers.

The gender gap in education, which exists in secondary and higher education, is reflected primarily through the choice of study majors. The share of girls who study physics and computer sciences in high school is considerably lower than the share of boys. In higher education, the paucity of women studying engineering and computer sciences stands out. In contrast, the percentage of women studying biology, chemistry, the humanities, and the social sciences in high school and in higher education is higher than the percentage of men. The gender gap in fields of study in higher education is related to the gender income gap in the labor market since engineering or computer sciences, the fields preferred by men, are characterized by high financial remuneration. The findings of recent studies indicate that encouraging girls to enter technological fields may be helpful in reducing the gender income gap, though it will not eliminate it.