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School finance policy and social justice

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ABSTRACT

This paper examines the relationships between funding principles and theories of justice. Additionally, it analyses the effect of school finance policy (SFP) on improving equality of educational opportunity (EEO), using logistic regression on Israeli data in the years 1999–2007.

The examination reveals that alternative funding principles are in-line with different theories of justice. This, in turn, legitimizes alternative decisions regarding redistribution mechanisms perceived as just or unjust.

The analysis reveals dominant elements which were included in the formula had an incremental improvement effect on EEO (e.g., maternal education). And, elements that were not included, had a diminishing effect (ethnicity, community-wealth). The recent reform (2010) is discussed as a means to improve EEO and social justice.

1. Introduction

Education has been recognized as a human right since the adoption of the Universal Declaration of Human Rights in 1948. It has been largely acknowledged that everyone has a right to education. Furthermore, it was established that "the right to education is to be achieved on the basis of equality of opportunity" (UNISEF, 2007, p. 8). The question of financing this right mainly focuses on the *governmental* allocation of resources to the educational system. In other words, financing the right to education is a matter of school finance policy (SFP), as public schools are financed mainly by the government.

One of the leading SFP's principles is striving for fairness. The school-finance literature distinguishes five principles of resource allocation, representing varying viewpoints on how to achieve fairness. Fairness, according to the principle of (1) *neutrality* focuses on minimizing the links between the wealth of a the school's community and the funding its students are entitled to (Coons et al., 1970; Berne and Stiefel, 1999). Fairness, according to the principle of (2) *horizontal equity*, means that students who are alike should be treated the same (Odden and Picus, 2000). The (3) *vertical equity* principle determines that, some groups of students need more than others to achieve fairness. The (4) *need-based* principle strives for fairness via differential per-student compensations for initial deficits (Ross and Levacic, 1999) and is perceived as an extension of the *vertical equity* principle. Finally, the (5) *equality of educational opportunity (EEO)* principle focuses on fairness in providing access to opportunities, or a fair starting point, especially for students who are members of disadvantaged and/or minority groups (Roemer, 1998; Berne and Stiefel, 1999; Downes and Stiefel, 2008).

Additionally, while each of these principles is well-intentioned and aims at increasing fairness, merely setting policy goals based on different principles of SFP is not enough to ensure that these goals are indeed achieved. Trends in legislation and budget allocation may not adequately serve the stated policy goals, as the analysis in this paper will demonstrate.

The argument of this paper is twofold. First, it is argued that a design of an SFP is aligned with a theory of justice. Second, it is argued that a design of an SFP effects the Educational Achievement Distribution (EAD) within the state, and by doing so it effects also the extent of the future social justice in the state.

This paper's objectives are as follows. First, it aims to investigate the relationship between the design of an SFP and the theory of social justice underlying it. Second, this paper is aimed at investigating the links between an SFP's design and the future social justice that might emerge from such a design. This research uses Israeli data from the period under review (from 1999 to 2007), as a case study. Based on the results of this research, the current SFP (2010) reform is discussed, in order to apply policy implications for a more just SFP.

The research questions are: (a) What are the links between alternative SFPs and theories of social justice? (b) To what extent, if at all, SFP's design affects future social justice in the state employing it?

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The research questions are addressed using Israeli data in the years examined (1999 and 2007). Israel serves as an interesting case because, in spite of the policymakers aspirations, since the establishing of Israel 65 years ago, to achieve fairness in education, Israel's EAD is characterized by a high level of achievement gap which might affect the extent of its social justice in the future.

Before addressing the research questions, the Israeli background is introduced to the international reader (Section 2). The social and economic background on Israel is provided (Section 2.1), followed by some background on the previous Israeli SFP, that was enacted during the years examined, and on the recent SFP reform (Section 2.2). Section 3 reviews alternative SFP's concepts related to fairness, and analyses them in regard to relevant theories of social justice, focusing on their enactment in the Israeli context. Section 4 uses empirical analysis of the fairness of the Israeli SFP before (in the year of 1999) and after (in 2007) the reform in the Israeli SFP, enacted in 2003. Using the results of this research, section 5 concludes with policy implications of the recent Israeli SFP reform enacted in 2010.

2. Background

2.1. The social and economic context of the Israeli SFP

2.1.1. Characteristics of Israel's population

Israel's population is highly diverse. About six million of its permanent 8 million residents are Jews, most of them immigrants or descendants thereof (from Western and Central Europe, North Africa and other Middle Eastern countries). The rest of the population is comprised of ethnic minorities, mainly Arab (1656,000, according to Israel's Central Bureau of Statistics—ICBS).

Income inequality in Israel is high and increasing. The Gini coefficient of income inequality increased between 2000 and 2008 from 0.36 to 0.39 (In the US, for example, the Gini coefficient is 0.41). Over this time period, the average income of the highest decile increased, while the average income of the lowest decile has decreased. The average standard of living increased, yet 24% of permanent residents are poor, as are 34% of Israeli children (National Insurance Publication, 2012).

2.1.2. Student characteristics

In 1996–2007, two major trends that will influence Israel's student characteristics have emerged. First, the Arab students showed a 69.9% growth rate in all schooling levels (from 231,000 to 391,000), which is higher than a quadruple of the Jewish students' growth rate of 14.7% (from 942,000 to 1081,000) (Ministry of Education, 2009).

Second, the rate of poverty among Israeli children has increased by almost 50%, from 25.2% in 2000 to 35.9% in 2007. Compared to the Western world, this is a high rate of child poverty. For example, in the US, 27.6% of the children are poor, in the Netherlands 9.8%, in France 11.5%, and in Germany 17.5% (National Insurance Publication, 2012). Therefore, when comparing Israel's national spending on education with that of other developed countries, the effect of this high poverty rate should be taken into consideration.

2.1.3. School structure

The Israeli school system is primarily public and comprises primary, lower secondary (middle) and upper secondary (high) schools. Pluralism is a central feature of the system. There is a public education system, comprised of schools where the curriculum is taught in Hebrew and schools where the curriculum is taught in Arabic. In addition, there is an independent, separate system of Ultra-Orthodox Jewish religious schools, which have different curricula and religious personnel, yet enjoy financial support from the State.

2.1.4. Achievement distribution

Israeli students' do poorly on international examinations, and the achievement gap between low and high achieving students in Israel is wider than that of any member country of the Organization for Co-operation and Development (OECD) (OECD, 2006, 2009b).

Specifically, at the Program for International Student Assessment (PISA), an international comparative study on science, literacy, and mathematics among 15-year-old students, Israeli students were ranked in 40th place out of 57 countries. Some 20% of Israeli students achieved below the minimum required level of achievement in the PISA tests, in comparison to the OECD average of 5% (OECD, 2006).

Moreover, the achievement gap between the high and low achievers in Israel is high compared to that of countries in the OECD, as was evident in both the 2006 and 2009 PISA examinations. Specifically, the achievement gap of Israeli students, measured by the 95:5 achievement ratio, is higher than that of Chile or Jordan (2.3, 1.9, 2.1, respectively) (OECD, 2006, 2009b).

2.2. School finance in Israel

2.2.1. Educational investment

Between the years 2000 and 2007, Israel increased its educational investment per student by 4%. This increment is rather modest compared with the average 38% increment in the countries of the OECD during that period. This gap is even larger when compared to other Western states that, like Israel, have ethnically diverse student populations (e.g., the UK, which increased its educational investment by 55.9%).

Furthermore, although Israeli national investment in education increased between 2000 and 2007, the proportion of national spending on education, as part of the GDP, decreased from 9.2% to 7.3%.

Although the national education investment as a share of the GDP is high (7.3) compared with the OECD average (6.1), the average investment per student is rather low, since Israel's population includes a high percentage of school age children. From an international comparative perspective, Israel's per student investment is some 30% lower than that of the OECD countries, and this gap grows wider in the higher grades (i.e., primary, secondary). Specifically, at the primary school level, the average per student investment is $5060, compared with the OECD average of $6741 (in PPP terms in 2007). This gap is even wider when compared to the investment per student in countries that resemble Israel's diverse student population (e.g., the UK, $8222). On the secondary school level there is a wider gap, as in Israel the investment per student is $5741, while the OECD average is $8267. Comparing the per student investment, as a percent of the GDP per capita, it is evident that Israel's investment is located at the bottom of the distribution (12%, 17%, and 17% at the primary school level in Israel, the UK, and the Netherlands, respectively; 20%, 22%, and 27% at the secondary level in Israel and the UK, and the Netherlands, respectively) (OECD, 2009a).

Globalization has created a different era for education, as nations compete globally based on the quality of their educational systems. Thus, education can no longer be examined only at the national-state level, and should also be considered at the international comparative level. Therefore, it is important to pay attention to the widening gap in allocation between Israel and the OECD countries.

2.2.2. The structure of school finance in Israel

The national investment in education in Israel is mostly governmental (68%). However, additional non-governmental funds from local authorities (7%) and households (25%) are a