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Abstract:

This study discusses the amalgamation of local governments as a method of creating larger and more effective local governments that place fewer burdens on central government budgets. Beyond 'economies of scale', our findings from a case study of Israel's 2003 amalgamation plan support the "democracy" claim. This study reveals that amalgamation reduces local democracy in terms of voter turnout and representation. The likelihood of having a greater level of local democracy increases in smaller local governments, in terms of population. The new "efficiency and democracy" approach suggests that a new amalgamated local government must be sufficiently small to maximize local democracy. While at the same time, new amalgamated local governments need to be sufficiently large to maximize economies of scale. This study uses field research with in-depth interviews to enhance the findings of the empirical analysis.

Keywords: local government, amalgamation, Israel, local democracy

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1. Introduction

The right of self-local governance has been legally recognized in several European countries beginning in the 18th century, when local governments became an integral part of the European governmental structure (Norton, 1994). This prominence of local governments later led to a normative justification of local democracy and local government, which was embedded in the European Charter of Local Self-Government (Council of Europe, 1985). Conversely, the constitutions of the US and Canada do not officially refer to any such local governments, but authorize national, state or regional governments to establish local governments and to determine their duties. However, in both cases, the local government's structure is designed by the central government and acts within powers delegated by the legislation or by directives from a higher level[1]. Therefore, this higher level of government has a mandate for the establishment of a new local government, the division of a local government into two or more entities, or the amalgamation of local governments.

Implicitly, this mandate affects the size of a local government in terms of population, which can vary dramatically across countries. Colonial legacies, geography, and ethnic and linguistic fragmentation, among other factors, are also likely to contribute to heterogeneous levels of fragmentation (Gomez-Reino & Martinez-Vazquez, 2013). The US, Canada, and some European countries have large cities of several million inhabitants. Many European countries have local governments with fewer than 10,000 inhabitants (Fox & Gurley, 2006). Several countries with large cities, such as Switzerland and Spain, nevertheless have small local governments with fewer than one thousand inhabitants. France, which had approximately 34,000 (out of 37,000) communes with fewer than one thousand inhabitants (Norton, 1994), is an extreme case.

Various claims for the ideal size of a local government have emerged throughout history, beginning with the ancient Greeks, who suggested an "ideal polis" of ten thousand residents

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[1] In unitary countries, most governing power resides in centralized governments. In contrast, the federal system includes three or four levels of governance; in such a structure, governing power usually resides at the state level.

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(Mogens, 1997). Plato and Aristotle preferred smaller entities. In the early 1970s, scholars began to question whether "democracy" relates in any way to "size" (Dahl & Tufte, 1973). Recent studies have examined this issue, particularly as a reflection of the efficiency of small or large local governments (Denters et al., 2014). In several countries, the central government amalgamates small local governments to reduce expenditures and to take advantage of the assumed efficiency of larger local governments. This action of undermining local autonomy is most likely performed without considering the effect on local democracy, which is primarily reflected in the will of a group of people to live in their own community separate from other communities.

Although the amalgamation of local governments is a method to create larger local governments, which are hypothesized to be more effective, more fiscally sustainable, and less demanding on central government budgets, this study examines how this act affects local democracy. The purpose of this study is to determine whether "bigger is better" in terms of how democracy applies to local governments' size. Amalgamation is considered here to be an opportunity for researchers to analyze individual local governments rather than to compare different ones. In our case, we produce a lower variance that minimally affects the researchers' ability to reach more confident conclusions.

2. Literature Review

Based on the scientific debate on the efficiency of larger local governments, we position our study between two major claims in the field: efficiency and democracy (Newton, 1982). The "efficiency" claim suggests that larger local governments offer greater efficiency, while the "democracy" claim suggests that local democracy is greater in smaller local governments (Olowu, 1988).

In making the "efficiency" claim, researchers have attempted to find a connection between size and efficiency. As a result, economic efficiency was a goal for reforms implemented in several countries, such as Canada, which established the megacity of Toronto in 1998 (Sancton, 2010)

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and Denmark which decided in 2007 to consolidate local governments to reach a minimum of 20,000 inhabitants and therefore reduced the number of local governments from 271 to 98. Other reform proposals suggest more varied goals. In South Africa, from 1999 to 2000, the government aimed to obtain equality and integration between neighborhoods with primarily black populations and neighborhoods with primarily middle-class, white populations (Cameron, 2004). Extensive reforms in Greece in 1998 attempted to improve the level of municipal services, promote modern local government in rural areas, and allow for the emergence of new leadership in local governments by reducing the number of local governments from 5,825 to 1,033 (Razin, 2003). Thus, countries and/or lower-level units in federal systems often consider amalgamation to achieve one or more of the following goals: lowering service costs, improving service quality, enhancing accountability, and improving equality or expanding participation in government (Fox & Gurley, 2006).

However, researchers disagree regarding the advantages and disadvantages of small local governments, the need for their amalgamation, and the ways in which to implement amalgamation. On the one hand, several studies have already demonstrated that larger local governments are more efficient (Carmeli, 2008) and that municipal amalgamations bring economies of scale into practice (Bel, 2013; Reingewertz, 2012). On the other hand, other studies have found no evidence of economies of scale among amalgamated local governments (Kortt et al., 2015; Sinnewe, 2015), while still others have found no evidence of inefficiency in smaller local governments (Byrnes & Dollery, 2002; Koven & Hadwiger, 1992; Rouse & Putterill, 2005; Zeedan et al., 2014). A third point of view suggests that a larger local government may be inefficient (Smith, 1985; Keating, 1995) and that greater efficiency is found among small or medium-sized local governments (Bish, 2001). Boyne (1992 and 2003) argued that economic efficiency is evidenced in large local governments as much as in small ones. This claim joins the figurative claim to the "Economic Theory of Clubs" policy (Buchanan, 1965), which suggests that although large institutions have an advantage in providing quality services, expenditures for such services rise with the higher

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salaries of workers and the higher level of services. Thus, New Public Management (NPM) suggests that disaggregating large municipalities into smaller units enhances performance. As a result, the current literature indicates that economies of scale exist up to a certain city size (Capello & Camagni, 2000).

Another perspective on the connection between size and efficiency has been noted by several studies that evaluated the impact of size on specific services (Bish, 2001), such as water delivery, sewer services, refuse collection, road maintenance, police protection, fire protection, public education, public works, and public libraries, and found contradictory conclusions (Andrews, 2013; Bodkin & Coklin, 1971; Deller & Halstead, 1994; Drake & Simpler, 2000; Fox & Gurley, 2006; Hirsch, 1959; Stevens, 2005). Despite its importance, this perspective is not part of our research.

In making the "democracy" claim, researchers suggest that local democracy is greater in smaller local governments. The idea behind this notion is the right of a community to maintain its uniqueness. This right is based on a strong argument in political theory that local self-government is a fundamental component of broader democratic structures and practices (Pratchett, 2004). As a result, the main arguments raised by the opponents of the consolidation of local governments emphasize the need to consider the right of inhabitants to determine their local affiliations and to conduct their affairs to preserve the character of the lifestyle they prefer (Martins, 1995). In view of these considerations, which stress democracy and local identity, countries such as France, Switzerland, and Austria usually permit municipal fragmentation (Wollmann, 2000). For example, the amalgamation of small local governments in some Swiss cantons at the beginning of the 21st century was implemented without coercion. Other studies found a free-rider effect in amalgamations to be a sign of a lower level of local democracy (Hinnerich, 2009).

Conversely, several studies have argued that even small local governments may produce lower levels of democracy if they are too small to provide basic services (Ehrenhalt, 1995).

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Although smaller local governments may be closer to residents geographically, if the governments are too small to provide basic services, then the benefits from having a small unit are meaningless. Another aspect is the greater role of kinship-based local politics in small local governments (Beeri & Saad 2014), in other words, there can be less local democracy in this type of small local government. Hence, some countries have reduced the number of small local governments through legislation and without the cooperation of their inhabitants. For example, Canada's large-scale reform in the 1990s was implemented despite the opposition of most of the people involved (Sancton, 1999).

Considering other aspects of local democracy, Denk (2012) found that participation in local elections is not correlated with local governments' size. Similarly, Mabuchi (2001) found that voter turnout in local elections is not significantly affected by amalgamation. An opposing conclusion was found in a recent study by Denters et al. (2014): they found that municipality size has a positive effect on the degree of political diversity found in different municipalities, which led the researchers to conclude that size may have a positive indirect effect on the likelihood to vote. In evaluating the effect of amalgamation on councilors, Ryšavý & Bernard (2013) found no evidence of higher accountability among elected officials in small local governments, while Kjaer (2010) found a negative influence of amalgamation on the ability of councilors to make decisions and change policies. However, not enough research has focused on the democracy aspect, as most relevant studies have addressed economies of scale.

These conflicting findings on efficiency, local democracy, and size led us to examine whether a local government needs to be sufficiently large to maximize efficiency and sufficiently small to maximize local democracy. However, if so, what size is sufficiently large to maximize efficiency, and what size is sufficiently small to maximize local democracy? Several studies have suggested exact numbers of inhabitants as the most efficient numbers for a local government. Bunch & Strauss (1992) suggested the amalgamation of small communities with populations

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under 20,000 to achieve this goal. Gabler (1971) found that municipal services and activities do not possess economies of scale beyond a population of approximately 25,000 inhabitants. Mabuchi (2001) found that efficiency occurred in Japanese amalgamations with under approximately 115,000 inhabitants.

We acknowledge that this kind of questions is place-specific, as findings are expected to vary from one place to another. To be more specific, the duties and responsibilities of local governments differ from country to country, and so findings regarding the optimum size to maximize efficiency and local democracy are expected to offer a variety of findings. Thus, to address our research question, we analyzed the recent case study of the 2003 Israeli plan to consolidate twenty-four existing local governments into twelve new local governments. At that time, Israel faced a financial crisis, and the central government implemented a comprehensive economic plan with a goal to dramatically reduce the expenditures of local governments. The plan to reduce the number of local governments was a central component of achieving this goal. The primary intention was to reduce the number of local governments from 264 to 115—or 200 at most—through amalgamations[2].

The need for reforms in Israel's local governments arises from several ideas suggested in recent studies (Beeri, 2013a; Beeri, 2013b; Ben-Basat & Dahan, 2009; Carmeli, 2008; Ghanem & Azaiza, 2008; Haider, 2010; Zeedan, 2013). The reduction of the number of local governments has been discussed in Israel in numerous occasions as a means of implementing local government reforms (Ben-Elia, 2004). Although several issues have been raised, the primary goal of the governmental plan was economic efficiency.

This particular case study was recently analyzed by Reingewertz (2012), who focused solely on economies of scale. Based on empirical evidence, Reingewertz found that in the Israeli case, municipal amalgamations bring economies of scale into practice. Thus, our research aims to

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[2] Israel has only two levels of governance: the central government and local governments.

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add value to these findings by solely examining the effect of amalgamations on local democracy. Following Reingewertz's findings, we are able to determine that the new, larger amalgamated local governments in the Israeli case are sufficiently large to maximize efficiency. However, are they sufficiently small to maximize local democracy?

Thus, the research question is as follows: **what is the relation between population size and local democracy?** In our research, we hypothesized a negative relation between population size and local democracy. In other words, **local democracy decreases when population size increases**.

3. Case Study and Field Research

3.1. Case Study

Israel's governmental structure in 2003, as indicated in Table 1, was composed of 264 local governments, housing approximately 7 million people. Among these governments, three had fewer than one thousand inhabitants, and 57 had fewer than five thousand inhabitants. Further differences among these local governments included structure (i.e., cities, local councils, and regional councils[3]), geographic spread and district (from the north to the south of Israel), and ethnic or religious origin (Jews and Arabs, including Muslims, Christians, and Druze).

As part of the 2003 Israeli plan, policymakers determined that this structure wasted resources due to a common government practice of subsidizing local inefficiency on an annual basis, such as special central government grants given to reduce the debts of inefficient local governments. Another unique aspect of the Israeli case is that local governments in Israel provide most of the services to residents, including services for which the central government is responsible and provides the required budgets (such as education, welfare services, infrastructure,

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[3] In Israel, the regional council is one of three types of local government (the others are the city and the local council in rural or semi-urban areas) and includes several communities that are usually settled separately across a large area. The regional council is a governing and administrative body, similar to a local council, and includes representatives from the communities that are part of the council.

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water supply, etc.). In this sense, the degree of the national decentralization of authority and the resources to municipal governments in Israel are somewhat weak because the municipalities are responsible for providing services that are funded and controlled, to some extent, by the central government.

Moreover, an Israeli municipality is authorized to act only in ways that are allowed by law. An Israeli municipality is largely dependent on the Ministry of the Interior, which can block municipality actions. The Ministry of the Interior has the authority to establish or abolish a municipality, change its jurisdiction, fire elected council members and elected mayors, declare new elections, appoint a temporary committee to run the municipality, approve local laws, etc. Given this, in 2003 it was decided to reduce the number of local governments and create larger, more effective and more fiscally sustainable local governments. It was expected that having fewer local governments providing the same services would place fewer burdens on the central government budget.

Table 1 is about here

Following the amalgamation plan of 2003 and some other changes over the following years, the structure of local governments in Israel partially changed, as indicated in Table 1. These changes include a new law to prevent the establishment of new municipalities with less than 10,000 inhabitants and a steady increase in the population, which is a result of both natural population increase and small number of incoming and internal migrants among most of the cities. As a result, the number of small and very small local governments was reduced. In 2012, the very small local governments decreased from 3 to 0, and small local governments decreased from 57 to 37. The number of large local governments increased from 57 to 77.

Hence, our case study included twenty-four existing local governments that were amalgamated into 11 new local governments, which is shown in Table 2.

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Table 2 is about here

3.2. Method of Field Research

This research was conducted in two stages. First, field research was conducted followed by a statistical analysis, which will be explained later. The field research attempted to discover the reasons behind residents' behavior and supplemented the narrative case study. In-depth interviews were conducted with local leaders, municipal employees, and residents. In these in-depth interviews, we asked open-ended questions that elicited a depth of information from relatively few people.

The sampling strategy was based on "cluster sampling." The clusters were built to represent the two categories in our case study, namely, the local governments (all of the original twenty-four local governments) and the type of interviewee (all three types, i.e., local leaders, municipal employees, and residents). In the second stage, a sample of primary individuals was randomly selected from each cluster. This resulted in a total of 84 interviewees.

From these 84 interviewees, completed interviews were conducted with 53 respondents, which were included in our examination, producing a return rate of 63%. Among these interviews, all interviewees from the subsequently disaggregated local Arab governments completed their interview- this totaled twenty-five. Therefore, the portion of the disaggregated local governments in the results – the Arab respondents – was higher than their actual percentage in the case study. This result complies with our original intention to gather more information to discover the reasons behind residents' behavior and their objection to the amalgamation process. It is important to note that the following results are concluded from the entire sample and refer mostly to the amalgamated, then disaggregated, local Arab governments. Beyond this specific focus, we were not able to give any significant results associated with a specific local government or type of respondent due to the small sample of interviewees.

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3.3. Findings from the Field Research

From the in-depth interviews, we gathered a list of six main reasons that the respondents pointed at as explanations to their opposition to the amalgamation: "[we have] no feeling of identity," "[this act is] an attack on our self-respect," "[there are] problems in getting services," "the new leaders don't represent us," "[the new local government is] less responsive to our special needs," and "[this was] a forced decision."

Interviewees claimed that after amalgamation, there was "no feeling of identity." This could be explained by the fact that three of the four amalgamations that were disaggregated after several years were given different names from their original names (one of them was not part of this research: *Ha-Hamisha)*. The first was called *Shagor* (after the name of the area: the *Shagor Valley*) instead of *Majd el-Krum*, *Deir el-Asad,* or *Bi'na*. The second was called *Carmel City* (after the name of the area: *Carmel Mountain*) instead of *Daliat El-Carmel* and *Usfiya*. The third was called *Ha-Hamisha* ("the five") instead of *Yirka*, *Julis*, *Yanuh-Jat,* and *Abu Snan*. According to the interviewees, this change, along with other reasons, led to active opposition of these amalgamations in these local governments until members of parliament were convinced to vote on a law to abolish these amalgamations.

In addition, interviewees described the amalgamation as "an attack on our self-respect." As an explanation of this statement, we were provided with the example of the new addresses that inhabitants of the smaller local governments were assigned. Addresses were automatically changed so that the inhabitants became residents of neighborhoods in the new local government. This action was considered to be an attack on residents' "self-respect" and led several of them to report that "we don't belong to that city." The names of the new local government, along with the address changes, emphasize the significance that these residents attributed to their own heritage. Any change was automatically interpreted as an attack on them and on their "self-respect."

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Several interviewees said that the problem with the new organization involved "problems in getting services." Because the institutions of the new local governments were situated in a previous local government, residents began receiving services from unfamiliar and distant institutions. The residents considered this action to be a reduction of their services.

Other interviewees reported that "the new leaders don't represent us." The new mayors, who were elected from one of the consolidated local governments—usually the largest one— were not readily accepted by the other local governments' residents. The same sentiment was expressed regarding the employees and managers of the departments in the local government. Some of the interviewees also accused the new local government employees and leaders of not taking care of special needs that were known and respected by the old local government.

Finally, some interviewees described the local governments' amalgamation as a "forced decision." The decision to amalgamate local governments was made by law, despite the resistance of some local governments' residents and political leaders. Moreover, this decision was made only three months before the scheduled local elections. This haste likely encouraged many residents to oppose amalgamation. This feeling was indicated only by the residents of local Arab governments; their status as a minority in a majority Jewish country may have influenced their feeling that this legislation was an act of discrimination by the central government. Their percentage in the amalgamation plan was much more than the actual percentage of all local governments in Israel (41% instead of 30%), which also may have led the Arab residents and their leaders to adopt this approach.

In addition to our findings from the interviews, in some municipalities, we were introduced to petitions that were signed by residents who asked to abolish the amalgamation. Following this objection, three of the amalgamated local governments were later disaggregated into separate local governments that were similar to the governments that existed before this action. All of the abolished local governments were local Arab governments (in fact, all four local Arab governments that were part of the original plan were eventually disaggregated).

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The findings from the field research suggest that the main reason that these amalgamated local governments were unsuccessful in terms of local democracy was the lack of cooperation from local residents and their leaders with the central government's plan. These residents felt less committed to the new organization and preferred to participate in actions to abolish the amalgamation and to boycott tax collection or participation in local elections. This feeling was most evident in the answers of the interviewees who were from amalgamated local Arab governments. Pratchett (2004) has already suggested that when local autonomy is affected – in terms of freedom from central interference, freedom to affect particular outcomes, and local identity – this will always affect local democracy and vice-versa. In our case, we found that local autonomy was significantly affected in the three above-mentioned aspects. The central government interfered by forcing the amalgamations. With the creation of new local governments, residents had less freedom to change particular outcomes. The feeling of local identity was also under attack. Thus, it is unsurprising that all of these changes, concerning local autonomy, led to a decrease in local democracy. Hence, we need to evaluate to what extent did it effect local democracy and we still need to evaluate the relation between size and local democracy. In order to do so, we implemented a statistical analysis.

4. Method

4.1.Dependent and Independent Variables

In our statistical analysis, we used the residents' participation factors such as voter turnout in local elections, tax collection, and inhabitants per councilor, as factors of local democracy. The above mentioned in-depth interviews also helped us to focus on optimal factors for the quantitative analysis.

The first factor, voter turnout in local elections, was calculated as the percentage of the actual vote in the local government elections relative to the average actual vote in Israel over the same period. Voter turnout is an essential component of representative democracy (conversely to direct democracy), as it reflects the number of residents who are participating in the process of

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choosing their leadership. As mentioned in the field research, we found that this matter is important to the people themselves as a component of the "local democracy" that was taken from them, as they see it. The importance of voter turnout is even more important in regard to local democracy in the Arab communities in Israel, as they lack other mechanisms of participation such as citizens' meetings and consultative bodies (Ghanem & Mustafa 2009). An increase in election participation usually reflects residents' dissatisfaction and thus may reflect more local democracy. However, the field research revealed that in this unique case study, participation in elections decreased immediately after amalgamation in most cases. The in-depth interviews that were conducted during the field research also revealed that the main reason for reduced election participation was residents' reduced commitment to the new local government. Furthermore, when we examined participation in the elections of local governments that were separated after several years of amalgamation, we found that participation in elections rose after separation. These findings convinced us that this factor should be applied in the opposite way: decreased election participation indicates reduced local democracy.

However, it is important to note that our sample includes Arab local governments in which the regular voter turnout is very high (Ben-Bassat & Dahan, 2012). For example, in 2013 the turnout in most of the Arab local government elections was above 80%, compared with the Israeli average of only 51% in the same year (Beeri & Saad 2014). This high percentage represents the major role of kinship-based social networks among the Israeli-Arab society, i.e. extended families or clans (*hamulas)*, which leads to kinship-based voting patterns and competition between these social networks over public resources and jobs, while occasionally involving nepotism and fraud (Amara, 1998; Ghanem & Mustafa, 2009; Halabi, 2014; Herzog & Yahia-Younis, 2007; Rekhess, 1985). A low voter turnout in such elections may indicate that residents are in favor of reducing corruption and thus enhancing local democracy.

A similar problem was detected regarding the second factor, tax collection, in terms of total property tax revenue per capita. Tax collection was calculated as the average tax rate per

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inhabitant in Israel over the same period (following Hinnerich, 2009; Liberati, P. & Sacchi A., 2012; Kortt et al., 2015; Avellaneda & Correa-Gomes, 2015). Several studies have considered tax collection to be a reflection of the managerial efficiency of the local government. For example, Avellaneda & Correa-Gomes (2015) found that higher per-capita tax collection in larger municipalities is a reflection of better managerial efficiency. However, this unique case study required that this factor be used as a reflection of local democracy. In Israel as many other countries, local taxes are compulsory, but the rate of tax collection in Israel varies between municipalities. Some of the variation may be explained by administrative efficiency, but other explanations were also identified, such as social or political differences. In our field research, we detected a substantial decrease in tax collection in some consolidated local governments. We found that the main reason for the decrease in tax collection in the first year after amalgamation was residents' reduced commitment to the new local government. This finding convinced us that in this case, tax collection should be included as a local democracy factor. This approach is in line with other studies that include the tax share in the case of amalgamations as an indicator of free-riding, occurring when inhabitants decreased their tax share because of amalgamation (Hinnerich, 2009), and thus, as a factor of local democracy.

The third factor, the number of inhabitants per councilor, was calculated as a percentage of the average in Israel over the same period. The number of inhabitants per councilor is intended to reflect the presentation of local issues at its lowest tier: local council work, as another component of representative democracy. Higher values for this factor, which means that a councilor represents more residents, are correlated with decreased local democracy. It is worth mentioning that in the Israeli case, the amount of councilors varies between municipalities. Furthermore, after the amalgamation process, the Ministry of the Interior decided how many councilors should be elected in each new amalgamated local council. The number of councilors was equal to or lower than the number in the councils before amalgamation. Moreover, in our case study, some of the municipalities are Arab local ones (4) and others are regional local

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councils (3). In both cases, the representation of extended families/*hamulas* (in Arab

municipalities) or the representation of the settlements (of the regional council) are important to

the inhabitants. To some extent, this reflects the representation of a voting ward. Thus it was

important to explore the extent to which the amalgamation process led to a decrease in the

representation of the people.

Following this explanation, the dependent variables in our empirical analysis were (1) the log

of residents per councilor, (2) the log of voter turnout, and (3) the log of tax collection. Because

we are interested in the effect of size on local democracy, we used population size as our

independent variable. All factors were standardized, by calculating them as percentages of the

average in Israel for all local governments in the respective year. In this way, we guaranteed that

any changes were compared to non-amalgamated local governments. Thus, we eliminated the

effects of other external changes that have no connection to the amalgamation process.

4.2.Empirical Strategy

To estimate the relation between local democracy and size, we adopted a conventional linear

regression framework, following Kortt et al. (2015):

$$(a)\ Y_{it} = \beta 1 P_{it} + \beta 2 L G_{it} + \beta 3 T_{it} + \mu_{it}$$

In equation (a), *Yit* is the (1) the log of residents per councilor, (2) the log of voter turnout,

and (3) the log of tax collection. The subscripts *i* and *t* represent the local government and year,

respectively. *Pit* represents population, *LGit* is an indicator variable for the local government, *Tit*

is a year indicator variable, and *μit* is an error term. First, for each amalgamated local

government, we estimated the outcome of the dependent variable for the upcoming years after

amalgamation (2004–2012) based on the data of each year from the years before the

amalgamation (1999–2003). For a better comparison of voter turnout, two election years were

added (1998 and 2013). All results were estimated using ordinary least squares (OLS), and given

that we observed the same municipalities in waves, our standard errors are clustered at the local

government level to account for within local government serial correlation. This approach is

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reasonable in the current context given that our observations are clustered at the local

government level (Kortt et al., 2015). Then, we conducted a between-effects regression analysis

to compare the actual outcome in the years after amalgamation (2004–2012). The new statistic

that we used for the regression was the difference between the estimates in the case in which the

amalgamation was not conducted and the actual value after amalgamation in each following

year. By examining the data of several years after the amalgamations, we focus our empirical

analysis on the short-term effects of reform to identify the pure effect of a change in size.

5. Results

In Table 3, we report the summary statistics for actual data on population, residents per councilor,

voter turnout, and tax collection for all amalgamated local governments, covering the 1999–2012

period. The following points in Table 2 are worth noting.

First, the population size increased dramatically after amalgamation (mean=9,884 and

SD=7,616 before amalgamation; mean=24,255 and SD=17,216 after amalgamation). A similar

pattern emerges with respect to residents per councilor (mean=759 and SD=513 before

amalgamation; mean=1,505 and SD=1,090 after amalgamation) and lower voter turnout after

amalgamation (mean=0.83 and SD=0.12 before amalgamation; mean=0.64 and SD=0.10 after

amalgamation). However, a different pattern is noted for tax collection, which increased after

amalgamation (mean=0.62 and SD=0.28 before amalgamation; mean= 0.70 and SD=0.22 after

amalgamation). In essence, the summary statistics in Table 3 demonstrate that significant

differences exist between the periods before and after amalgamation.

Table 3 is about here

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To gain further insight into these associations, we separately plotted the relations between population size and residents per councilor, voter turnout, and tax collection, as shown in Figure 1. In examining these relations, it is worth noting that there is a positive relationship between residents per councilor and population size, a negative relationship between voter turnout and population size, and a weak negative relationship between tax collection and population size. These relations do not take into account omitted variable bias arising from local government fixed effects and year fixed effects. To further examine the relations plotted in Figure 1, we now turn to our empirical analysis.

Figure 1 is about here

5.1. Results of the Empirical Analysis

Table 4 presents the results of our empirical analysis of the amalgamated local governments. Panel A in Table 3 reports the results for the effect of population size on the log of the difference in residents per councilor. Model 1 in Panel A reports the results, without controlling for municipality type or ethnicity. According to this estimate (β= 0.7531), which is statistically significant at the 5% level, a 10,000-person increase in population is associated with a 75% increase in residents per councilor after amalgamation compared to the estimated number of residents per councilor before amalgamation. To account for the different municipality sizes among the amalgamated local governments, we extended Model 1 in Panel A to include municipality size clusters (Model 2). This estimate was lower than that in Model 1 (β=0.6418), which means that in mid-size and small municipalities, an increase in the population explains the increase in the number of residents per councilor after amalgamation better than it would in the large municipalities. In Model 3, we controlled for municipality type (city, local council, and regional council), which provided the highest estimate in Panel A. According to this estimate (β= 0.9600), which is statistically

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significant at the 5% level, a 10,000-person increase in population is associated with a 96% increase in the residents per councilor after amalgamation compared to the estimated value of residents per councilor before amalgamation. In Model 4, which controls for ethnicity, the estimate was a little higher than that in Model 1 but lower than that in Model 3 ($\beta=0.7895$).

Table 4 is about here

In other words, we found evidence of a statistically significant relationship between population size and the log of residents per councilor for the amalgamated local governments. This relationship was stronger among cities and local councils than among regional councils. This confirms our research hypothesis regarding residents per councilor.

Panel B in Table 3 reports the effect of population size on the log of the difference in voter turnout. Model 1 in Panel A reports the results without controlling for municipality type or ethnicity. According to this estimate ($\beta=-0.7121$), which is statistically significant at the 5% level, a 10,000-person increase in population is associated with a 71% decrease in voter turnout after amalgamation compared to the estimated value of voter turnout before amalgamation. To account for the different municipality sizes among the amalgamated local governments, we extended Model 1 in Panel A to include municipality size clusters (Model 2). This estimate was higher than that of Model 1 ($\beta=-0.8645$), which means that in large municipalities, an increase in the population explains the decrease in voter turnout after amalgamation better than a similar decrease in the small-size and mid-size municipalities. In Model 3, we controlled for municipality type. Once again, this provided the highest estimate in Panel B. According to this estimate ($\beta=-0.8996$), which is statistically significant at the 5% level, a 10,000-person increase in population is associated with a 90% decrease in voter turnout after amalgamation compared with the estimated value before amalgamation. In Model 4, which controls for ethnicity, the estimate was close to that of Model 1 ($\beta=-0.7498$).

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In other words, we found evidence of a statistically significant relationship between population size and the log of voter turnout for the amalgamated local governments. This relationship was stronger among cities and local councils than among regional councils and stronger among large local governments than among small and mid-sized governments. This confirms our research hypothesis regarding voter turnout**.**

Panel C in Table 3 reports the effect of population size on the log of the difference in tax collection. Model 1 in Panel A reports the results without controlling for municipality type or ethnicity. This estimate (β=0.1613) was not statistically significant. Models 2, 3, and 4 were also not statistically insignificant. In other words, we found no evidence of a statistically significant relationship between population size and the log of tax collection for the amalgamated local governments. This rejects our research hypothesis regarding tax collection.

6. Discussion on Local Democracy

We limited our focus on local democracy in this research to participation and representation. This focus is supported by previous scholars who have also found that institutions of elected local government are the primary locus of democracy at the sub-central government level (Pratchett, 2004). We acknowledge the existence and the importance of other semi/-democratic institutions that are emerging in various societies. We believe that these are important components of enhancing a sense of local democracy. However, we were mostly interested in the basics of determining local autonomy and practicing local democracy, which, as indicated in this research, is initially present in participation and representation in local elections. As Pratchett (2004; p. 359) stated, "…If democracy is seen as a process through which competing interests are reconciled, then multi-purpose elected local government remains the primary institution of democracy at the local level, as such, it deserves special attention."

A recent revival of interest in the role of local democracy has focused on encouraging political participation as part of a broader democratic polity (Stoker, 1996). Additionally, in the

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developing world, participation is seen as critical to increase the overall capabilities of citizens (Dreze & Sen, 1995). The practice of local democracy, especially in a representative democracy, is considered an important practice of political skills that are expected to help to increase democratic practice at the national level.

Moreover, when evaluating ways to extend local democracy, Hambleton (1988) suggested four approaches. The first approach is "improving local representative democracy." This approach is conducted mainly by addressing low voter turnout in local elections (Rhodes, 1987) and examined only afterwards by other measures such as organizing meetings with representatives or improving support services for councilors, etc. When low voter turnout is observed, one of the most serious problems is that the voice of the people in municipal elections is likely to be severely distorted. The local government is an arena that can affect citizens' lives in profound ways; thus, low voter turnout may lead to elected officials who implement policies that tend to serve only a small segment of the population (Hajnal & Lewis, 2003).

A forced amalgamation, as in our case, contradicts the above-mentioned discussion. Furthermore, it contradicts the idea of extending local democracy by developing new ways of involving people in decision-making. At its core, democracy means that the government treats citizens equally and that citizens have equal rights to participate in government. Holding periodic elections for representatives is the established form of realizing these ideals. However, deepening democracy requires additional steps towards strengthening citizenship to an active rather than a passive form (Goldfrank, 2007). All of these were not present in our case. To conclude, this forced amalgamation has directly affected local freedom from central government interference as a fundamental component of local democracy. Forced amalgamation has affected the basics of local autonomy and has thus minimized local democracy.

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7. Conclusion

In this paper, we examined the relation between size and local democracy by using a case study of the amalgamation plan that was implemented in Israel in 2003. Based on our empirical analysis, we found evidence of a statistical relation between population size and local democracy. Considering this Israeli case, our results indicate that there is evidence to support our hypothesis that there is a negative relation between population size and local democracy. In terms of voter turnout and representation, local democracy decreases when population size increases. We found that this effect is more distinct in cities and local councils compared with regional councils. Moreover, this effect is also more distinct in large localities (more than 20,000 inhabitants) than in small localities (less than 20,000 inhabitants).

The most distinct finding in our research is the negative relation that was found between size and voter turnout. The statistical analysis was supported by evidence from the field research. In some localities, the interviewees rejected the amalgamation plan, which explained their decision to boycott the elections and afterwards, in some cases, to boycott tax payments. The negative relation that was found between size and residents per councilor is less important than voter turnout. However, this relation supplements the turnout decrease as a second component that describes representative democracy. Participation in electing representatives has primary importance, whereas the number of representatives and their ability to represent local and unique issues is secondary. A third level is the quality of representation, which should be examined in subsequent research.

Generally, we confirmed for the Israeli case Olowu's (1988) "democracy" claim, which suggests that local democracy is greater in smaller local governments regarding voter turnout and representation. This claim is also consistent with Treisman's (2007) suggestion that in small localities, citizens are closer to decision makers and feel more efficacious, politics is less abstract, and preferences are more homogeneous, which allow a better fit between what citizens want and what they receive. This suggestion extends Lassen & Serritzlew's (2011) argument that as the size

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of municipalities increases, citizens feel less qualified to play an active role in municipal politics; thus, internal political efficacy drops. This effect is explained by previous studies (such as Almond & Verba, 1963; Dahl & Tufte, 1973) and is because of the decline in the share of power of any particular citizen when the number of citizens increases. Our results are further consistent with the findings of Denters et al. (2014) regarding the positive effect of local government size on the degree of political diversity that favors smaller local governments. Moreover, our findings are consistent with Pratchett's (2004) indication that when local autonomy is affected – in terms of freedom from central interference, freedom to effect particular outcomes, and local identity – this will always affect local democracy and vice-versa. In our case, we found that local autonomy was significantly affected in the three above-mentioned aspects. Thus, it is unsurprising to find that all of these changes, in regard to local autonomy, led to a decrease in local democracy.

An important restriction to the findings regards the four local Arab governments in our case study. In these local governments, regular voter turnout is usually very high, which represents the major role of kinship in voting paterns. A low voter turnout in these local government elections may indicate that residents are in favor of reducing corruption and thus enhancing local democracy. Therefore, high voter turnout is necessarily a desirable mode of local democracy in this case only after kinship-based politics is eliminated in the future. Despite this limitation, our findings were also supported in the local governments with a Jewish majority and thus should still be considered.

Our findings contradict those of previous studies that found no evidence of higher strength for local democracy in smaller local governments. Our findings also contradict claims that even small local governments can be "less" democratic if they are too small to provide basic services (Ehrenhalt, 1995). They specifically contradict the findings of other studies that voter turnout in elections is not significantly correlated with local government size (Denk, 2012). Mabuchi (2001) even highlighted a direct connection with amalgamation when he found that voter turnout in local

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elections is not significantly affected by amalgamation, whereas in our case study, we found the opposite result.

Regarding local representation, our findings contradict those of Ryšavý & Bernard (2013), who found no evidence of higher accountability for elected officials in small local governments. Our results indicate that the residents per councilor are lower in smaller local governments, and, thus, local democracy is greater, which is consistent with the findings of Kjaer (2010) regarding the negative influence of amalgamations on the ability of councilors to make decisions and change policies, which was not examined in this research. Furthermore, parallel to the controversy regarding the large-scale reform that was implemented in Canada in the 1990s despite the opposition of most of the people involved (Sancton, 1999), our field research showed that a main reason for failure in the amalgamation process is the lack of cooperation between residents and their local leaders. In our case, we were not able to demonstrate a significant correlation between population size and tax collection, despite our prediction and based on the field research. This evidence contradicts the findings of Hinnerich (2009) regarding the free-riding effect in amalgamations as a sign of lower levels of local democracy.

Following our adoption of Reingewertz's (2012) findings, we followed the "efficiency" claim that we need sufficiently large local governments to maximize efficiency. However, given our findings, we suggest the merging of this claim with the "democracy" claim. We suggest a new "efficiency and democracy" approach that suggests that local governments should also be sufficiently small to maximize local democracy. According to this method, we suggest adding the level of local democracy as a factor that should be considered when making decisions regarding amalgamation and not focusing solely on economies of scale. Based on our results, we predict that an amalgamation decision based on our "efficiency and democracy" approach is likely to be more successful in terms of both economies of scale and local democracy. However, the "efficiency and democracy" approach still must be confirmed in subsequent studies in other countries. This

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suggestion is consistent, to some extent, with the preliminary argument of Plato and Aristotle, who preferred entities to be sufficiently large to be self-sufficient but sufficiently small to ensure that citizens can know one another's characters (Dahl & Tufte, 1973).

Despite our confidence in the findings and conclusions from the Israeli case, research and empirical analysis, careful adjustments should be made when applying them to other countries, as several problems may result. A unique aspect of the case study of Israel is that it included several local Arab governments that differed from the Jewish-majority in several ways. Furthermore, our case included a small sample of twenty-four local governments. Thus, we suggest that our method is carefully tested in other countries after making the required adjustments.

Beyond our main contribution of the "efficiency and democracy" approach, we further contributed in terms of methodological aspects by using field research with in-depth interviews to guide and then enhance the findings of our empirical analysis. We used factors to explain local democracy differently than the previous literature. The findings from the field research helped to clearly explain the intention behind the behavior of residents in several local governments.

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References

Almond, G. A., & Verba, S. (1963). *The civic culture: Political attitudes and democracy in five nations*. Princeton University Press.

Amara, M. (1998) The clan in Arab politics: adaptation to changing patterns, in: E. Rekhess (Ed.) *The Arabs in Israeli Politics: Dilemmas of Identity.* Tel Aviv: Dayan Center, pp.98–112. [in Hebrew]

Avellaneda, Claudia N. and Correa-Gomes, Ricardo (2015). Is Small Beautiful? Testing the Direct and Nonlinear Effects of Size on Municipal Performance. *Public Administration Review*, 75:1, pp. 137–149. Article first published online: 23 NOV 2014, DOI: 10.1111/puar.12307.

Andrews, Rhys (2013). Local government size and efficiency in labor-intensive public services: evidence from local educational governments in England. In: Lago-Penas, Santiago and Martinez-Vazquez, Jorge (ed.). *The Challenge of Local Government Size*. UK: Edward Elgar. Chapter 7, pp. 171-188.

Beeri, I. (2013a). Direct administration of failing local governments: democratic deficit or effective bureaucracy?. *Public Money & Management*, 33:2, 137-144.

Beeri, I. (2013b). Governmental strategies towards poorly-performing municipalities: From narrow perceptions to ineffective policies. *Lex Localis- Journal of Local Self-Government*, 11 (1), 33-52.

Beeri, I., & Saad, M. (2014). Political Participation Unconditioned by Inequality and Discrimination: The Case of Minorities-within-Minorities in Israeli-Arab Mixed Municipalities. *Journal of Ethnic and Migration Studies*, 40(10), 1526-1549.

Bel, Germa (2013). Local government size and efficiency in capital-intensive services: what evidence is there of economies of scale, density and scope? In: Lago-Penas, Santiago and Martinez-Vazquez, Jorge (ed.). *The Challenge of Local Government Size*. UK: Edward Elgar. Chapter 6, pp. 148-170.

Ben-Basat, A., & Dahan, M. (2009). *The political economics of the municipalities*. Jerusalem, Israel: The Israel Democracy Institute. [in Hebrew]

Ben-Bassat, A., & Dahan, M. (2012). Social identity and voting behavior. *Public Choice*, 151(1-2), 193-214.

Ben-Elia, N. (2004). *The Fourth Generation: A New Local government for Israel*, The Floersheimer Institute for Policy Studies. Jerusalem. [in Hebrew]

Bish, R.L. (2001). Local government amalgamations: discredited nineteenth century ideals alive in the twenty-first. *CD Howe Institute*, Toronto, Ontario, Canada.

Bodkin, R.G., & David W.C. (1971). Scale and Other Determinants of Municipal Government Expenditures in Ontario: A Quantitative Analysis. *International Economic Review*, 71(3), pp. 465-481.

Bigger, but not always better

Boyne, G. (1992). Local government Structures and Performance: Lessons From America. *Public Administration*, 70, Issue 3, pages 333–357.

Boyne, G. (2003). Sources of Public Service Improvement: A Critical Review and Research Agenda. *Journal of Public Administration Research and Theory*, 13 (3), pp. 367-394.

Buchanan, M.J. (1965). An Economic Theory of Clubs. *Economica*, New Series 32 no. 125, pp. 1-14.

Bunch, B.S. & Strauss R.P. (1992). Municipal Consolidation - An Analysis of the Financial Benefits for Fiscally Distressed Small Municipalities. *Urban Affairs Review*, 27 no. 4, pp. 615-629.

Byrnes, J., & Dollery, B. (2002). Do Economies of Scale Exist in Australian Local Government? A Review of the Research Evidence1. *Urban Policy and Research*, 20, Issue 4, pp. 391-414.

Cameron, R. (2004). "Local Government reorganization in South Africa". In: Meligrana, J. (ed.). *Redrawing Local Government Boundaries: An International Study of Politics, Procedures, and decisions*, UBC Press, Vancouver, pp. 206-226.

Capello, R. & Camagni, R. (2000). Beyond Optimal City Size: An Evaluation of Alternative Urban Growth Patterns. *Urban Studies*, 37 (9); pp. 1479-1496.

Carmeli, A. (2008). The Fiscal Distress of Local governments in Israel: Sources and Coping Strategies. *Administration & Society*, 39 (8), pp. 984-1007.

Central Bureau of Statistics. (yearly published- 1999 thru 2012). *Local governments in Israel, special series*. Jerusalem, Israel: Author. [in Hebrew]

Council, O. E. (1985). European charter of local self-government. *Council of Europe*.

Dahl, R. A. &Tufte, E. (1973). Size and Democracy. Stanford: Stanford University Press.

Deller, S. C., & Halstead, J. (1994). Efficiency in the Production of Rural Road Services: The Case of New England Towns. *Local Economics*. 70(20), pp. 247-59.

Denk, T. (2012). Size and Political Support on the Local Level in Sweden, *Local Government Studies*, 38:6, pp. 777-793.

Denters, Bas, Michael Goldsmith, Andreas Ladner, Poul Erik Mouritzen and Lawrence E. Rose (2014). *Size and Local Democracy*. Cheltenham: Edward Elgar Publishing Ltd.

Drake, L., & Simper, R. (2000). Productivity Estimation and the Size-Efficiency Relationship in English and Welsh Police Forces: An Application of DEA and Multiple Discriminant Analysis. *International Review of Law and Economics,* 20(1), pp. 53-73.

Dreze, J., & Amartya, K. SEN, 1995: *India: Economic Development and Social Opportunity*. Oxford & Newdelhi: Oxford university press).

Ehrenhalt, A. (1995). The Mystique of Government "Close to the People". *Governing*, August, pp. 6-7.

Fox, W., & Gurley, T., (2006). Will Consolidation Improve Sub-National Governments?, *World Bank*, Policy research Working Paper 3913.

Gabler, L.R. (1971). Population size as Determinant of City Expenditure and Employment- some Further Evidence. *Land Economics*, 47 (2): pp. 130-138.

Goldfrank, B. (2007). The politics of deepening local democracy: decentralization, party institutionalization, and participation. *Comparative Politics*, 147-168.

Gomez-Reino, Juan Luis and Martinez-Vazquez, Jorge (2013). An international perspective on the determinations of local government fragmentation. In: Lago-Penas, Santiago and Martinez-Vazquez, Jorge (ed.). *The Challenge of Local Government Size*. UK: Edward Elgar. Chapter 2, pp. 8-54.

Ghanem, A., & Azaiza, F. (2008). *Is it possible to overcome the crisis? The Arab municipalities in Israel in the beginning of the 21st century*. Carmel, Jerusalem. [in Hebrew]

Ghanem, A. A., & Mustafa, M. (2009). Arab local government in Israel: Partial modernisation as an explanatory variable for shortages in management. *Local Government Studies*, 35(4), 457-473.

Bigger, but not always better

Haider, A. (2010). *The collapse of Arab local governments: Suggestions for restructuring*. Tel-Aviv, Israel: Van Leer. [in Hebrew]

Halabi, Y. (2014). Democracy, clan politics and weak governance: The case of the Arab municipalities in Israel. *Israel Studies*, 19(1), 98-125.

Hambleton, R. (1988). Consumerism, decentralization and local democracy. *Public Administration*, 66(2), 125-147.

Hajnal, Z. L., & Lewis, P. G. (2003). Municipal institutions and voter turnout in local elections. *Urban Affairs Review*, 38(5), 645-668.

Herzog, H., & Yahia-Younis, T. (2007). Men's Bargaining with Patriarchy The Case of Primaries within Hamulas in Palestinian Arab Communities in Israel. *Gender & Society*, 21(4), 579-602.

Hinnerich, B. T. (2009). Do merging local governments free ride on their counterparts when facing boundary reform?. *Journal of Public Economics*,93(5), 721-728.

Hirsch, W. (1959). Expenditure Implications of Metropolitan Growth and Consolidation. *The Review of Economics and Statistics*. 41(3), pp. 232-241.

Keating, M. (1995). Size, Efficiency and Democracy: Consolidation, Fragmentation and Public Choice. In: D. Judge, Stoker, G and Wolman H. (eds.), *Theories of Urban Politics*. London: Sage, 117-136.

Kjaer, U., Hjelmar U., & Olsen, A.L. (2010). Municipal Amalgamations and the Democratic Functioning of Local Councils: The Case of the Danish 2007 Structural Reform, *Local Government Studies*, 36:4, pp. 569-585.

Kortt, M. A., Dollery, B., & Drew, J. (2015). Municipal Mergers in New Zealand: An Empirical Analysis of the Proposed Amalgamation of Hawke's Bay Councils. *Local Government Studies*, (ahead-of-print), DOI: 10.1080/03003930.2015.1007133.

Koven, S.G., & Hadwiger, D.F. (1992). Consolidation of Rural Service Delivery. *Public Productivity & Management Review*, 15, No. 3, pp. 315-328.

Lassen, D. D., & Serritzlew, S. (2011). Jurisdiction size and local democracy: Evidence on internal political efficacy from large-scale municipal reform. *American Political Science Review*, 105(02), 238-258.

Liberati, P. & Sacchi A. (2012). Tax decentralization and local government size. *Public Choice*, 157, Issue 1-2, pp 183-205.

Mabuchi, M. (2001). *Municipal Amalgamation in Japan*. The International Bank for Reconstruction and Development / The World Bank, Washington.

Martins, M.R (1995). Size of municipalities, efficiency, and resident participation: a cross-European perspective. *Environment and Planning C: Government and Policy 13(4),* pp. 441-458.

Mogens, H. H. (1997). The Polis as an Urban Centre and as a Political Community: Symposium August, 29-31 1996: *Acts of the Copenhagen Polis Centre 4*.

Newton, K. (1982). Is small really so beautiful? Is big really so ugly? Size, Effectiveness, and Democracy in Local Government. *Political Studies*, 30, Issue 2, pp. 190–206.

Norton, A. (1994). *International Handbook of Local and Regional Government- a comparative analysis of advanced democracies*. Aldershot, UK: Edward Elgar.

Olowu, D. (1988). *African Local governments as Instruments of Economic and Social Development*. The Hague: International Union of Local Governments.

Pratchett, L. (2004). Local autonomy, local democracy and the 'new localism'. *Political studies*, 52(2), 358-375.

Razin, E. (1998). *Fiscal Disparities Among Local Governments in Israel 1972-1995*. Jerusalem: Floersheimer Institute for Policy Studies. [in Hebrew]

Razin, E. (2003). *Local government Reform in Israel: Between Centralization and Decentralization Between Traditionalism and Modernity*. Jerusalem: Floersheimer Institute for Policy Studies. [in Hebrew]

Bigger, but not always better

Reingewertz, Y. (2012). Do municipal amalgamations work? Evidence from municipalities in Israel. *Journal of Urban Economics*, 72, pp. 240-251.

Rekhess, E. (1985) *The Arab Village in Israel: An Emerging National Political Center.* Tel-Aviv: Dayan Center [in Hebrew]

Rhodes, R. A. (1987). Developing the public service orientation: or let's add a soupçon of political theory. *Local Government Studies*, 13(3), 63-73.

Rouse, P. & Putterill, M. (2005). Local Government Amalgamation Policy: A Highway Maintenance Evaluation. *Management Accounting Research*, 16 (4), pp. 438-463.

Ryšavý, D. & Bernard, J. (2013). Size and Local Democracy: The Case of Czech Municipal Representatives. *Local Government Studies*, 39:6, pp. 833-852.

Sancton, A. (1999). Differing approaches to municipal restructuring in Montreal and Toronto: from the Pichette report to the Greater Toronto Service Board. *Canadian Journal of Regional Science 22*, pp. 187-199.

Sancton, A. (2010). "Restructuring and reform: Canada". In: Brunet-Jailly, E. And Martin, J.F. (ed.). *Local Government in a Global World, Australia and Canada in Comparative Perspective*. University of Toronto Press, Toronto, pp. 108-129.

Sinnewe, E., Kortt, M. A., & Dollery, B. (2015). Is biggest best? a comparative analysis of the financial viability of the Brisbane City Council. *Australian Journal of Public Administration*. Article first published online: 24 JAN 2015. DOI: 10.1111/1467-8500.12118.

Smith, B.C. (1985). *Decentralisation, The Territorial Dimension of the State.* London: George Allen and Unwin.

Stevens, P. A. (2005). Assessing the Performance of Local Government. *National Institute Economic Review.* 193(1), pp. 90-101.

Stoker, G. (1996). Redefining local democracy. In: *Local democracy and local government* (pp. 188-209). Macmillan Education UK

Treisman, D. (2007). *The architecture of government: Rethinking political decentralization.* Cambridge University Press.

Wollmann, H. (2000). Local government Modernization in Germany: Between Incrementalism and Reform Waves. *Public Administration*, 78, Issue 4, pages 915–936.

Zeedan, R. (2013). Israel's 2003 Plan for unification of Local Governments. *Israel Affairs,* 19:1, 170-190.

Zeedan, R., Vigoda-Gadot E. & Ben-Artzi Y. (2014). Causes of (and Solutions for?) Financial Crises in Local Governments: Insights from Local Arab Governments in Israel. *Administration and Society.* doi: 10.1177/0095399714556501.

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TABLES

Table 1. Structure of Israel's local governments in 2003 and 2012[4]

Size	2003		2012	
	Number of Local Governments	Percentage	Number of Local Governments	Percentage
Very Small (under 1,000)	3	1%	0	0%
Small (from 1,000 to 5,000)	57	22%	37	15%
Medium (from 5,000 to 20,000)	133	50%	126	50%
Large (from 20,000 to 100, 000)	57	22%	77	30%
Very large (more than 100,000)	14	5%	14	5%
Total	264	100%	254	100%

[4] According to the Central Bureau of Statistics in Israel (excluding two local industrial councils). Includes the results of three additional amalgamations implemented after 2003 that were not part of this research.

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Table 2. Sample[5]

#	Name	Population Size (2012)	Size	Local Governments before Amalgamation	Changes after the Amalgamation
	Local Governments After Amalgamation				
1	*Shagor*	32,700	Large	*Majd el-Krum* *Deir el-Asad* *Bi'na*	Disaggregated into the 3 separate local governments that existed before amalgamation
2	*Emek Hayarden*	11,800	Medium	*Emek Hayarden* *Kinneret*	
3	*Binyamina-Givat Ada*	14,000	Medium	*Binyamina* *Givat Ada*	
4	*Carmel*	27,300	Large	*Daliat al-Carmel* *Usfiya*	Disaggregated into the 2 separate local governments that existed before amalgamation
5	*Baqa al-Gharbiya-Jat*	34,400	Large	*Baqa al-Gharbiya* *Jat*	Disaggregated into the 2 separate local governments that existed before amalgamation
6	*Hof Hacarmel*	27,000	Large	*Hof Hacarmel* *Athlith* *"Kfar Galim"*	
7	*Modi'in-Macabbim-Reut*	82,900	Large	*Modi'in* *Macabbim-Reut*	
8	*Drom Hasharon*	28,000	Large	*Drom Hasharon* *Ramot Hashavim*	
9	*Kadima-Tsoran*	18,000	Medium	*Kadima* *Tsoran*	
10	*Yehud-Monoson[6]*	27,900	Large	*Neve Ephraim Monoson* *Yehud*	
11	*Savion*	3,300	Small	*Savion* *Ganei Yehuda*	

[5] *Ha-Hamisha*, a new amalgamated local government, was excluded from the analysis due to its disaggregation within one year after amalgamation
[6] Excluding Ganei Yehuda and Tzur Yigal

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Table 3. Summary of statistics of all amalgamated local governments (n=24) before and after amalgamation (1999–2012; voter turnout: 1998–2013)

Before / After amalgamation	Mean	Median	SD	Min	Max
Before Amalgamation					
Population size	9,884	8,786	7,616	471	34,109
Residents per councilor	759	691	513	74	2,623
Voter turnout	0.83	0.85	0.12	0.55	0.97
Tax collection	0.62	0.66	0.28	0.08	1.00
After Amalgamation					
Population size	24,255	22,707	17,216	3,000	82,900
Residents per councilor	1,505	1,266	1,090	333	4,876
Voter turnout	0.64	0.62	0.10	0.51	0.90
Tax collection	0.70	0.75	0.22	0.11	0.95

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Table 4. Empirical analysis of amalgamated local governments (1999–2012; voter turnout: 1998–2013)

Independent Variable	Model 1	Model 2	Model 3	Model 4
Panel A: The effect of population size on log of Residents per councilor				
Population size	0.7531*	0.6418*	0.9600*	0.7895*
	(0.10)	(0.14)	(0.12)	(0.11)
Municipality size cluster	No	Yes	No	No
Municipality type	No	No	Yes	No
Ethnicity	No	No	No	Yes
R^2	0.57	0.41	0.92	0.62
N	98	57	68	81
Panel B: The effect of population size on log of Voter turnout				
Population size	-0.7121*	-0.8645*	-0.8996*	-0.7498*
	(0.24)	(0.33)	(0.27)	(0.24)
Municipality size cluster	No	Yes	No	No
Municipality type	No	No	Yes	No
Ethnicity	No	No	No	Yes
R^2	0.51	0.75	0.81	0.56
N	20	12	14	17
Panel C: The effect of population size on log of Tax collection				
Population size	0.1613**	0.2825**	0.3299**	0.1567**
	(0.11)	(0.14)	(0.13)	(0.12)
Municipality size cluster	No	Yes	No	No
Municipality type	No	No	Yes	No
Ethnicity	No	No	No	Yes
R^2	0.03	0.08	0.11	0.02
N	90	54	60	75

*- $P<0.05$. **- $P<0.1$. Standard errors in parentheses

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Figure 1. Summary charts

(see attahce .JPEG file, as required)