

LOCAL OUTLINE PLAN JERUSALEM 2000

Chapter 8

Economy

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8.1 Introduction

This chapter is a continuation of reports number 2 and 3, and therefore a few points should be noted that were explained in great detail in the previous reports, in order to understand the proposed policy. In report number 1, the goals and objectives of the plan were defined, report number 2 in the economic section, dealt with Jerusalem's wealth and its distribution across the city and its constituent populations, with potential unexploited pockets found in the disadvantaged populations in the city, with the accelerating suburbanization and with the special nature of suburbanization in Jerusalem. Also, it presented a scenario of the city's development without any intervention. In report number 3, that dealt with employment programs, two scenarios were presented, the first describing an "open" and attractive city that will become the center for a bustling metropolis, and the other describing a "closed city – lonely and forlorn". Later in the analysis, an employment program was prepared according to the first scenario, on the assumption that many who live outside the city will come to interact within it, but also some of those living within the city will work outside it.

Additionally, an analysis was performed of the changes that have taken place in the structure of the Israeli market in the near and distant past, and attention was given to transformations in the relevant global environment (in economy, society and business) and attractive or potential industries were defined – advanced industries producing for external markets. As part of this analysis, the industries' skills requirements were studied as well as how they were affected by the global environment changes. According to the conclusions of report number 3, it was found that in Jerusalem the educational industry is the largest industry in the city. In the chapter dealing with higher education, an attempt was made to refer to it as an industry, to describe the structures of the markets in which it competes as well as its part in each of those markets, the assets held by it and the strategy that can serve to strengthen its competitive ability. The conclusion was that in Jerusalem, higher education is an advanced industry that produces for an external market and means were suggested, through which it might be possible to strengthen it. Finally, the report addressed the question of the likelihood that higher education will become the driving force that will bring forth the potential latent in the economically disadvantaged populations, the means to improve the interactions between academia and the rest of the market and the possibility that the creation of universities and student dormitories in the City Center will help strengthen and revive it.

8.1.1 Method

Populations and Prices

A city is comprised of people, not of spaces, not of transportation routes and not even of parks; People. People have a will of their own and each person chooses where to live, according to considerations that have nothing to do with the objectives of master plans. They choose according to the quality of the apartment, the human environment, the price, security, the proximity to centers of activity, according to the neighborhood park, the urban and open view and the feeling of open spaces.

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Planners must anticipate the overall result of the choices made by individuals and try to influence that result, as well as contain it.

The overall result brought about from individual choices is expressed in many things, two of which are rather easy to measure relatively – the dynamics of populations and prices. For technical reasons, the reference was to the dynamics between the city and its surroundings and the suburbanization in report number 2. This chapter will address mainly the dynamics of the population within the city and housing prices. These two factors influence the suburbanization process and therefore the three processes need to be recognized: the dynamics of the population within the city, the prices of housing in the city and outside it, and the dynamics of populations between the city and its surrounds (suburbanization) under a single context, then, the data regarding the dynamics will be analyzed (identity, age constitution and population growth rates) and pricing data, distributed according to sub-quarters in the city and relatively large towns in its surroundings, through this analysis an attempt will be made to identify the changes that have taken place between two periods of time and the trends implied thereby.

In order to receive as detailed and accurate information as possible, regarding pricing, we processed data from transactions, prior to taxation, and calculated the average prices per square meter of building, in sub-quarters in the city and in the suburbs. According to these prices we prepared a map of housing prices in the city and its suburbs.

Scenarios

Scenarios are tools that aid in dealing with uncertainty. In the scenario a coherent group of trends and events is described, who have a large influence on the city but who are not greatly affected by the city itself. A scenario also includes, besides these, a description of what the city can do, whether in response to a certain scenario and whether of its own accord. In order to utilize them in dealing with uncertainty, one must use more than one scenario.

In Jerusalem there is a level of uncertainty regarding what is happening to the east of the city. This uncertainty can be expressed economically in two questions: where is the border? And who will be able to pass through it? In report number 3, in the employment program chapter, reference is made to two scenarios: no entry, or controlled entry of workers from the Palestinian Authority. As we will see, the suburbanization process in Jerusalem is well underway.

This process can be a blessing to the city as well as a curse. It will depend on what the city will do, as was the case, for example, in Tel Aviv where this process occurred a long time ago, and caused a large number of workers to come from outside of the city, twice the number of workers who live within the city limits. Those who come from without, support the banking and business services industries in the city and these industries sustain the city's economy. In Jerusalem, the number of those coming to work from outside the city is relatively small. The banking and business services industries are far smaller, compared to Tel Aviv, while the residential property tax, is relatively lower than the property tax received from the banking and business services

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industries, which is why the relative scarcity of these latter industries makes it difficult for the city to provide adequate services to its residents. The suburbanization process can change all this. Should those moving to the suburbs choose to continue to work and act in the city, its economy will flourish, but should they remove themselves to the Tel Aviv metropolitan area, the city will wither.

We have chosen to demonstrate this through two scenarios: an open and attractive city and a closed and repulsive city (see report number 3, employment program chapter) and according to these two scenarios we calculated two forecasts for the number of workers in the city. The master plan chose the first scenario whose motto was "Even if they live outside, they will act within", but did not ignore the "bad" scenario. The result is shown in brevity in this chapter of the report, under article 8.6, titled "Advanced Industries Producing for the External Market".

8.2 Population and Price Dynamics

8.2.1 Population Dynamics

The population's dynamics is related to the economy on several levels. Lets take for example the level of urban quality and efficiency. In neighborhoods where residents are leaving, there are utilities and areas designated for public use that are not being utilized, and in neighborhoods that are "overflowing", the quality of housing goes down, as well as the quality of the urban environment. Analysis of the urban dynamics can help identify potential conflicts between the populations, for example conflicts that arise from immigration processes of one population sector into the territory of another. On the other hand, such an analysis can identify a potential for the separation of populations by identifying homogenization processes in neighborhoods or areas in the city.

The age constitution dynamics can indicate the economic power today, as well as future economic potential or burdens. The dependency ratio appearing in social analyses is the ratio between the population that is not of working age and the population that is of working age. This ratio does not explain the overall picture as one needs to deal separately with the younger age group that is not currently of working age but will be so in the future, and the group of those 65 years of age and older who might become a burden. The driving force behind the city's economy is the population of those leading the economy, education and research. These have many different characteristics two of which have been chosen as measures. The share of those who are employed, and the share of those who hold academic degrees in the total population.

Data from the CBS are a basis for the study of the population dynamics in the city. First studied were the data indicating the various identification groups in the city, and they are: the differentiation between Arabs and others and voting for Shas and Orthodox parties in the elections. According to these data, quarters were ranked in

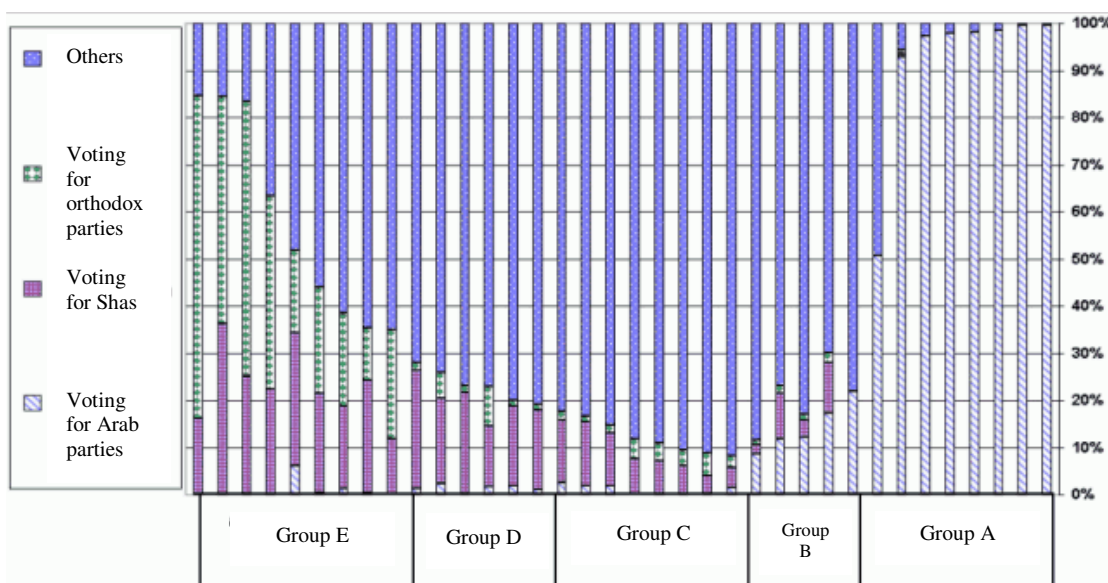
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the city in decreasing order according to the two criteria, the share of the Arabs and the share of those voting for Shas and the orthodox parties. The result is shown in Figure No. 1, on the right side of which the majority of the population is Arab and on the left side of which the majority of the population is those who voted for Shas and the orthodox parties, and in whose middle the majority of the population is not included in either of these groups, meaning Jews who did not vote for Shas or orthodox parties. According to these results, the city and towns in its greater metropolitan area were divided into seven identity groups who were given neutral names A, B, C and so on. For each of the different identity groups, data was gathered regarding the population size and the age distribution within the population in two time periods 1983 and 2000 and the result is shown in Figures No. 2 through 5. Each of these Figures displays the data for each sub-quarter from right to left according to the following order: data from 1983 including the percentage of those aged 0-24, 25-65 and 65+ followed by the data for 2000. To the left of these the difference is displayed in percentage between the population in the sub-quarter in 1983 and the population size in 2000. If this number is negative, it appears below the zero line.

In Figures No. 6 through 9, the economic strength of the population is displayed according to sub-quarters. For each quarter the data for 1983 is displayed from right to left, which is: the percent of those employed and the percent of those holding an academic degree, and to the left of these is the data for 1995, including: the percent of those employed and the percent of those holding academic degrees. Group G includes the major suburbs. Figure 1 shows the results of the last elections in the major Jewish suburbs of Jerusalem. Since the number of Arabs in these suburbs is negligible, the election results show to a great extent the identity of the population in these suburbs.

Identity Properties

Figure no. 1: Identity properties according to the 1999 election results in sub-quarters



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Figure No. 2: The change in population size and age distribution in Arab neighborhoods 1983-2000 (group A)

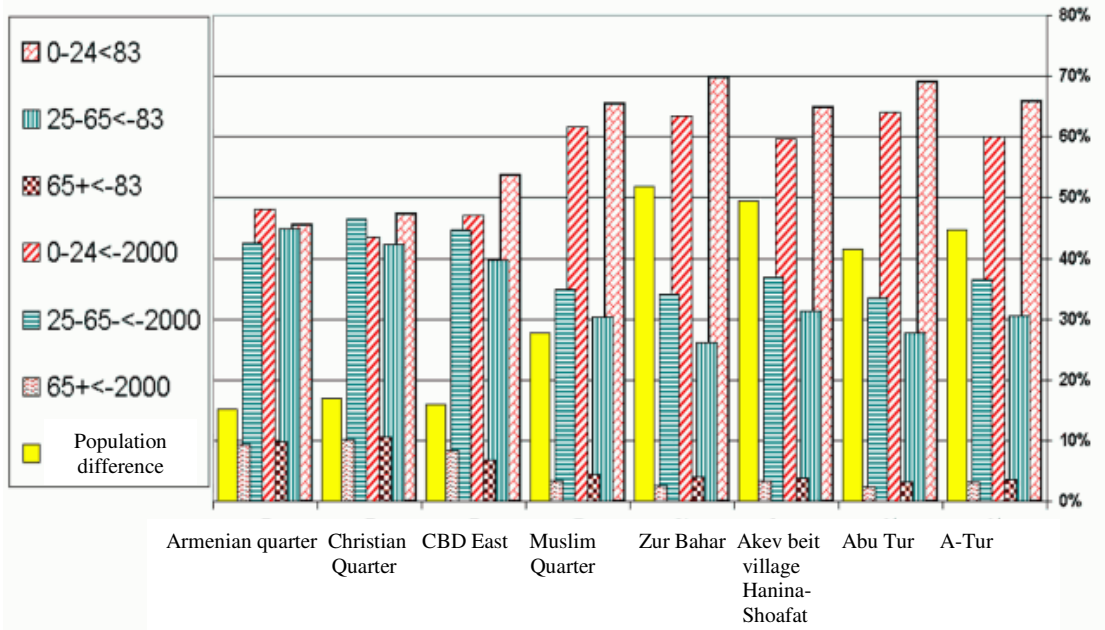
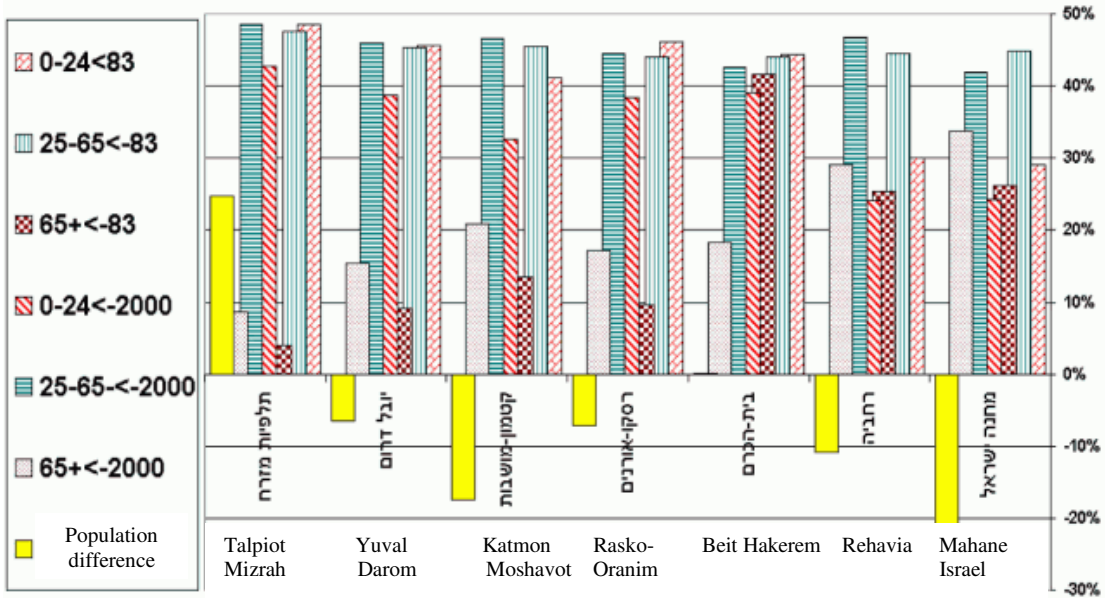


Figure No. 3: The change in population size and age distribution in non-orthodox Jewish neighborhoods 1983-2000 (group C)



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Figure No. 4: The change in population size and age distribution in orthodox Jewish neighborhoods 1983-2000 (group E)

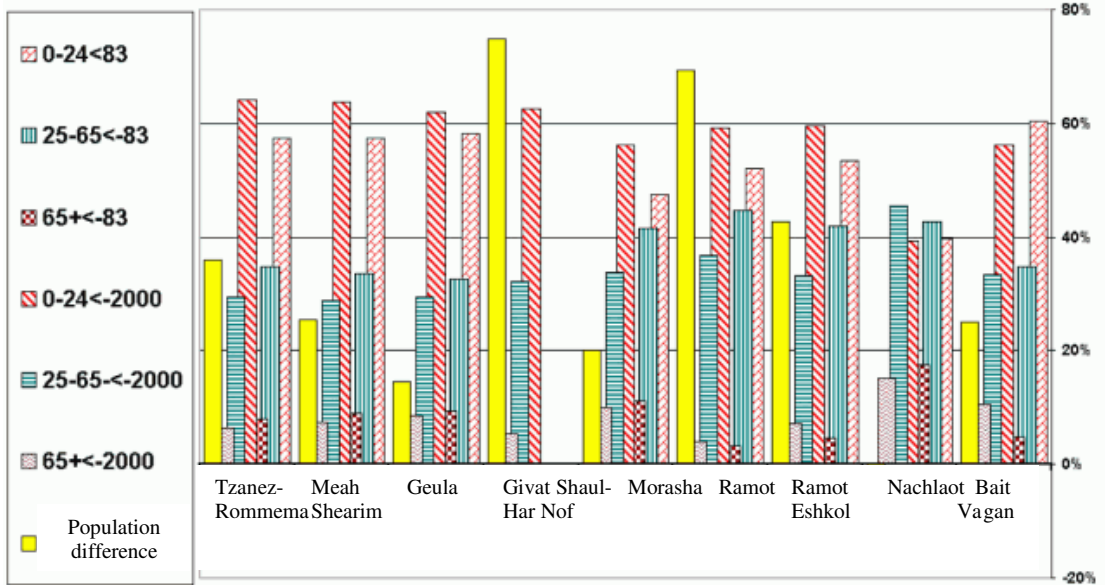
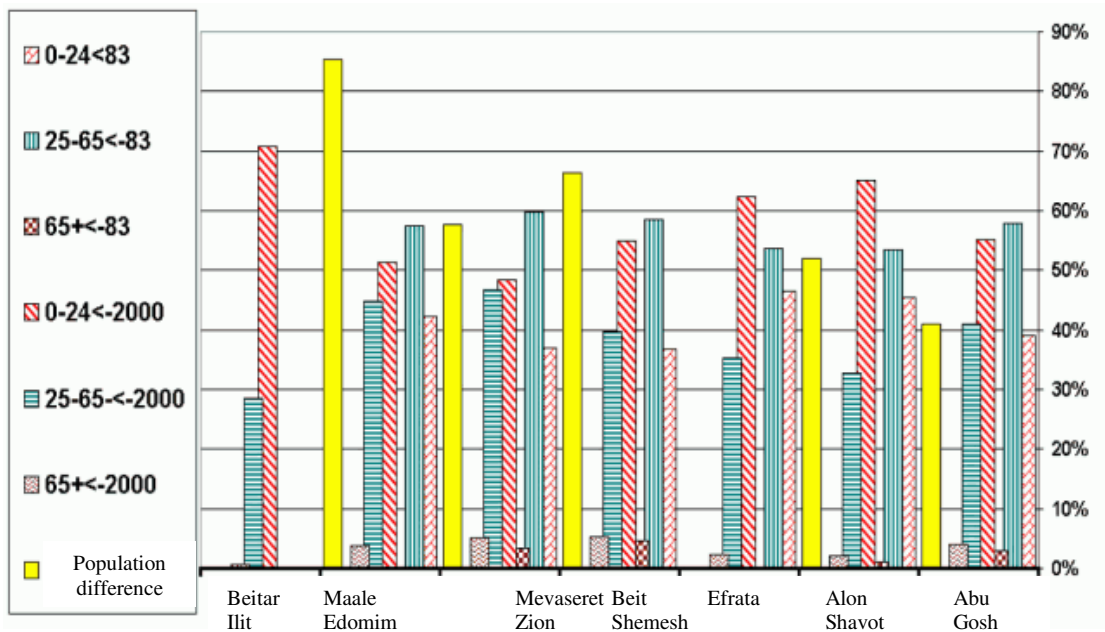


Figure No. 5: The change in population size and age distribution in towns in the Jerusalem area 1983-2000 (group G)

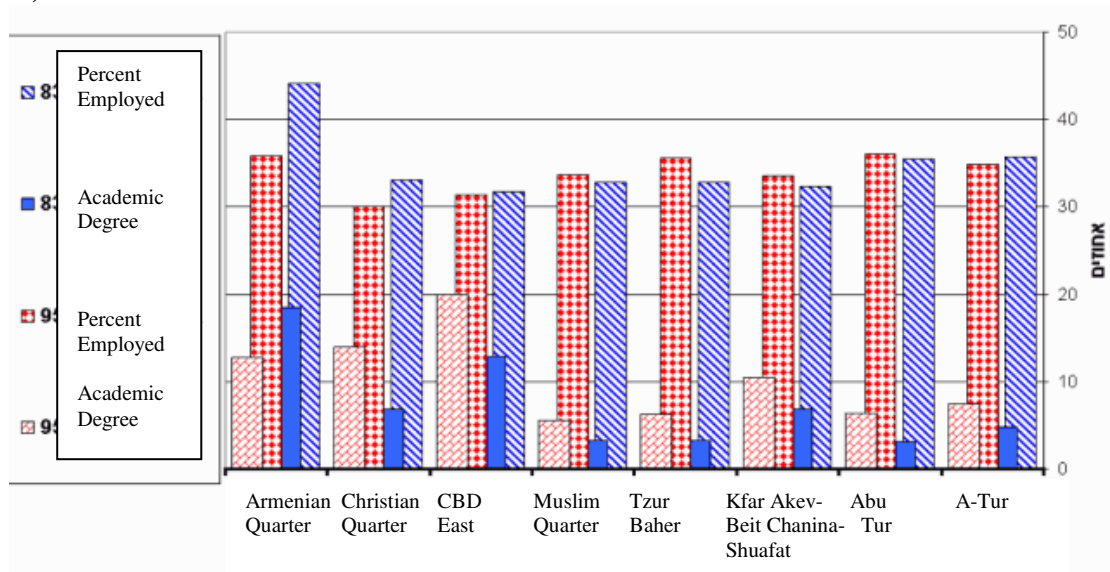


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Table No. 1: Election results in towns in the Jerusalem area (1999 elections)

Town	Shas	United Judaism	Torah	Other
Beit Shemesh	18.4	17.2		64.4
Beitar Ilit	35.8	54.6		9.6
Mevaseret	7.9	0.5		91.6
Modiin	3.2	0.6		84.2
Efrat	2	1		97
Maale Edomim	7.3	0.8		91.9
Kiryat Sefer	20.4	76.1		3.5

Figure No. 6: The "economic strength" of Arab neighborhoods 1983-1995 (group A)



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Figure No. 7: The "economic strength" of non-orthodox Jewish neighborhoods 1983-1995 (group C)

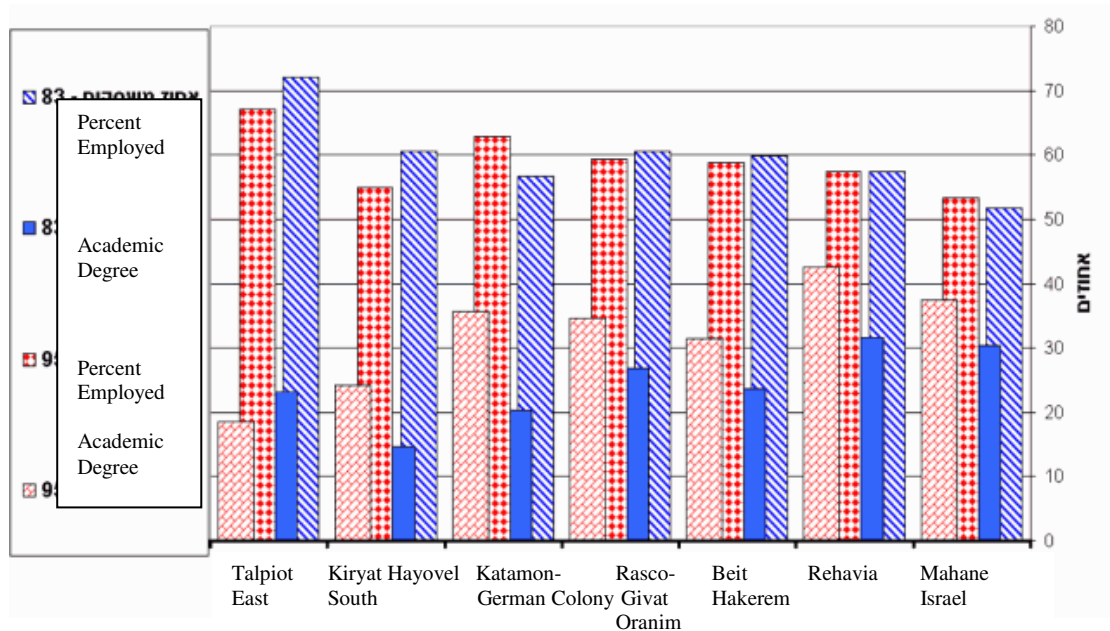
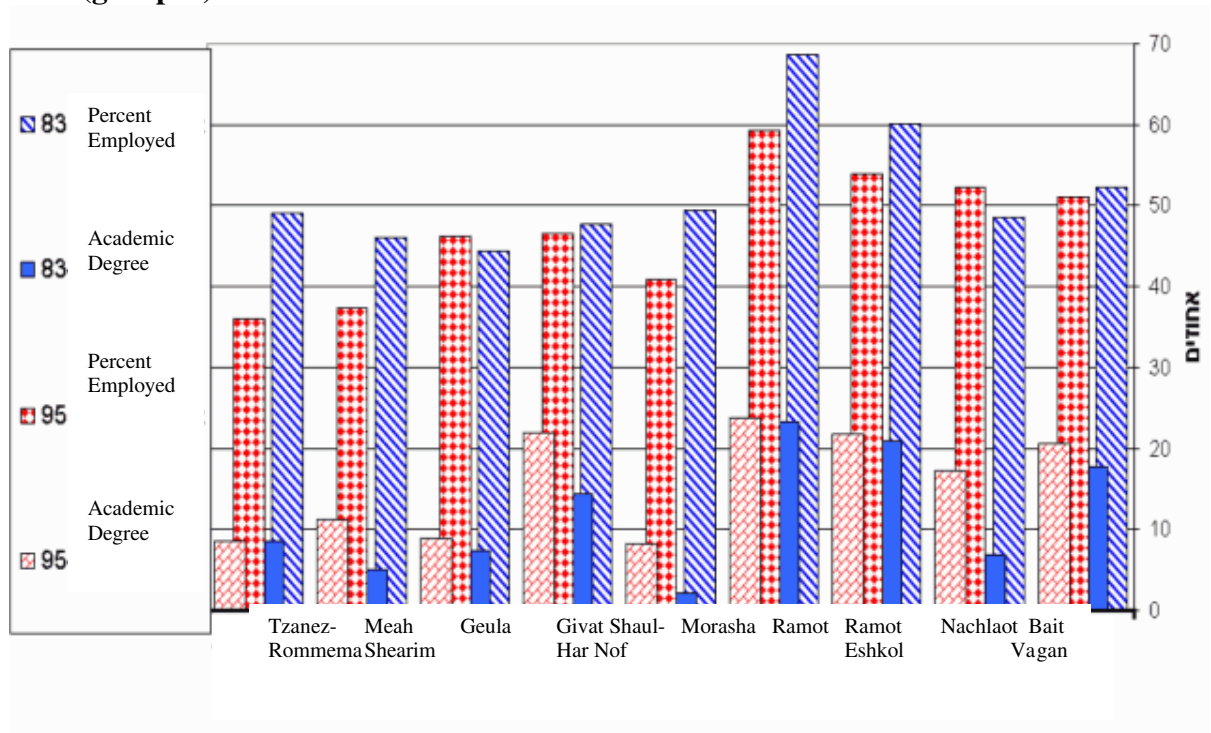
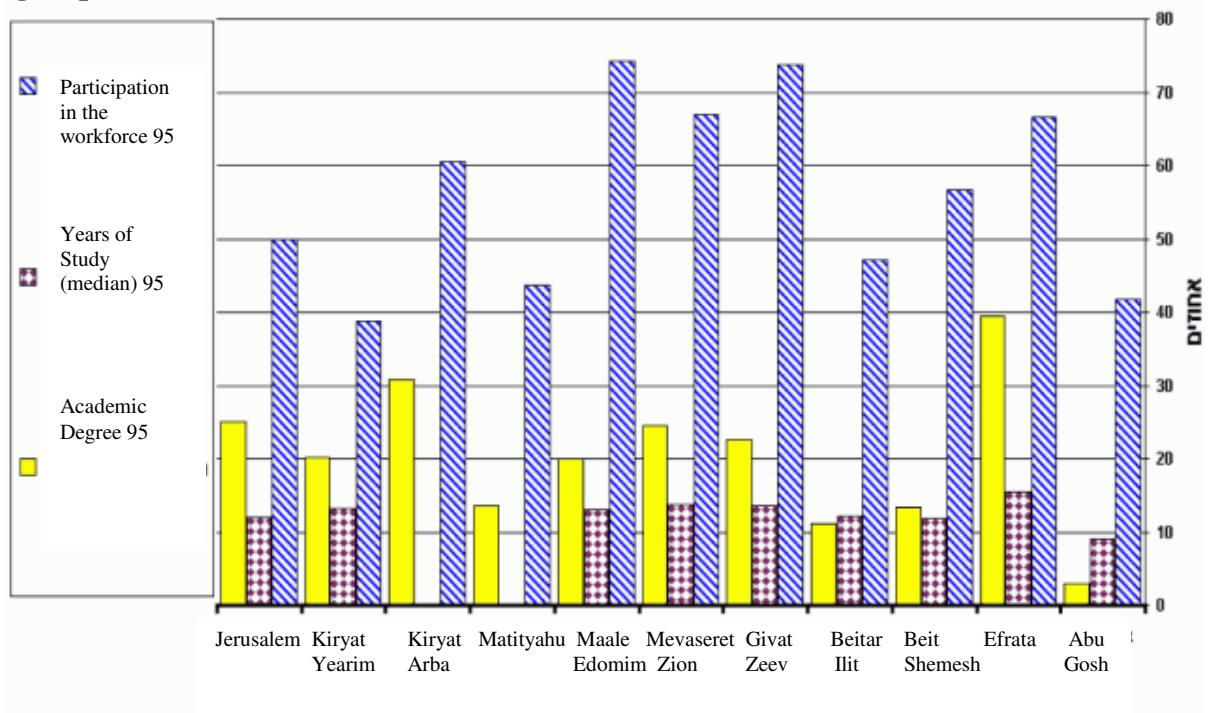


Figure No. 8: The "economic strength" of orthodox Jewish neighborhoods 1983-1995 (group E)



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Figure No. 9: The "economic strength" of towns in the Jerusalem area 1995 (group G)



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From analyzing the data in the above Figures, the following conclusions can be reached:

From reviewing Figure No. 1 we can deduce that the majority of the city's residents reside in more or less homogenous sub-quarters. It is safe to assume that a listing by neighborhood would have accentuated this phenomenon even further. But there are sub-quarters with a substantial minority. These are points of contact that can harbor conflicts and in a few of these sub-quarters this is indeed the situation. From the data we can also learn of groups of sub-quarters, where the vast majority is non-orthodox Jews (and these are mostly the older, veteran neighborhoods that are to the south of the City Center and are not far from it), where one can recognize a decrease in the size of the population. In neighborhoods that were demographically similar and were to the north of the City Center (Ramot Eshkol, for example), the population did not decrease, and this is due to the influx of a residential orthodox population. The population has greatly increased in quarters with an Arab majority and which are located outside the Old City and in quarters with an orthodox majority. In quarters with an orthodox majority, the age distribution is becoming younger and an opposite trend is visible in quarters with an Arab majority. One can also see that the population of economic leaders resides not only in non-orthodox Jewish neighborhoods, but also in orthodox neighborhoods such as Har Nof. Also, it is possible to see that in neighborhoods that have led the city in the past such as Rehavia, there is a high percentage of people holding academic degrees, but the percent of those employed is dwindling, hinting that these are neighborhoods that led in the past that house academic-educated retirees. The leader population also lives in the suburbs and the percent of those employed and those holding academic degrees in the suburban population is higher than in the leading neighborhoods in the city. This finding is mostly true in suburbs where the residents are non-orthodox Jews. However, this was not necessarily in the suburbs we expected. For example, the percent of degree-holders in Efrat is higher than that in Mevaseret-Zion and in Kiryat Arba it is higher than in Maale Edomim. This brings us to the big question: "Is the torch of leadership passing to the suburbs?".

The Urban Implications:

It appears that Jerusalem has three identity groups that live in homogenous neighborhoods. "The non-orthodox Jews group" acts as a majority, strives to apply universal norms on everyone, but in fact it is a receding minority. The other identity groups enclose themselves in one way or another, and maintain a controlled "internal environment" within their "walls", each according to its own taste. Simply speaking, besides the group of non-orthodox Jews, each one of the other population groups acts as a community. This situation reduces the number of contact points between the communities and allows them to live their lives as they wish, on the one hand, but on the other hand it does not prevent the members of these three communities from using one single municipal system. And indeed, in times of peace the members of the three communities drive on the same roads, mostly in the same busses, and are served by the same medical centers. Some of them attend the same university, work the same scaffolding and go to the same center. They come to the same center although there are areas within it specializing in the Arab or Orthodox community. This interaction is facilitated by the fact that the different parts of the City Center are next to each other. This situation, where the members of the three major communities live separately but use a single urban system, is more efficient than if each community

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were to create a separate urban system for itself. An orthodox majority in the center of the Old City will change the situation in Jerusalem, in that it will enable one population group to move the center, which is an important component in the urban system from "the public domain" into the possession of a "community".

In the urban domain there are no empty spaces, and neighborhoods that are being deserted by their occupants are filled with the residents of nearby overflowing neighborhoods. It will be emphasized that it is not the intention of the master plan to set the nature of the population type that will live in the various Jewish neighborhoods and their nature and character will be decided by the dynamics of the populations and the prices in the city.

8.2.2 Housing Costs in Jerusalem

The pricing data is based on transactions appearing in the Ministry of Finance database. According to these data, a price map was drawn, where prices are displayed in dollars per built residential square meter. The distribution according to city quarters, the suburbs and the towns in the city's metropolitan area (see Figures No. 10 and 11). The price map is based on observations conducted during 2000. A total of 5000 observations were conducted, of which about 3000 observations were inside the city and about 2000 observations were in the metropolitan area. Analysis of the housing cost data by use of a three-dimensional map reveals that the pricing system has a "mountainous" form, peaking close to the city center and sloping down towards the city outskirts (see Figure No. 10). This is an encouraging image as the three-dimensional image of pricing map in cities that have been harmed by the suburbanization process characteristic of cities in the United States (but not in Europe, see Report No. 2, Economic Chapter), is not a "peak" but a "crater". The factors that have brought this about in the United States were: clogging of transportation routes in the city, suburbanization and social benefits that included among other things a change of the population, and an influx of disadvantaged populations and crime to the city center. Upon closer inspection of the map, one finds troubling symptoms in Jerusalem as well. It appears that the "peak" is not over the city's center, but to the south-east of it, while to the north of the city center there is a valley, and to the north of that there is a series of "low hills". An expert familiar with the city's history, its system of neighborhoods and the relations between them, upon inspecting the map will be able to say: that to the south-east of the city center, are the older neighborhoods (Rehavia, Talbia, the Colonies and Katamon) that are populated by the past leaders; to the north of the city center are the old Orthodox neighborhoods populated by residents with a low average income and where prices are low. To the north of these neighborhoods lie a series of neighborhoods that have led the secular administration, economy and culture in the city since the Six Day War, and today urban dynamics are turning them into mixed Secular and Orthodox neighborhoods. At the city's outskirts, are relatively new neighborhoods where, until recently, was a large reserve of lands owned by the Israel Land Administration. These lands were available for residential construction and this is probably the reason behind the relatively low prices in the area. One must add "yet", as when these neighborhoods fill up, prices there will rise as well.

Of course, there are exceptions. There are religious neighborhoods and there are neighborhoods at the city's outskirts where prices are high, but these only require a

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little further inquiry to reveal that these are low-density, villa-type neighborhoods, with proximity to employment areas in Hadasa, and there is a large concentration of religious, educated immigrants from English or French-speaking countries.

From reviewing Figure No. 11, it appears that the prices in cities and suburbs in the Jerusalem metropolitan area, are lower than the prices in most of the neighborhoods within Jerusalem itself and are similar to the prices in the city outskirts. In the older neighborhoods in the city, where land reserves and been completely utilized, prices are high due to inflexible supply and high demand. Here, subsidies will not help, and aid can come only by increasing the supply, for example, by crowding. However, we must remember that the costs of crowding the older neighborhoods will be high, and therefore prices there will not be low. The price might be low in areas with large land reserves and concentrated building. Such large reserves of land may be found outside the city limits. There, supply is flexible and in the large centers (Modiyin and Beit Shemesh), construction and utility costs are not high.

These are the conclusions reached from analysis of the housing costs map of Jerusalem in 2000. During the planning horizon period, prices may change, and so may the pricing relations within the city and between the city and the suburbs. It is very difficult to predict the direction of change. We can only point to the competitors playing a part in deciding the prices, and these are: the city, where reserves are likely to be depleted during the planning horizon period and therefore prices in it are expected to go up. But a scenario is also possible where the dynamic trends, and the social consequences that they entail, will bring about a decrease in prices in the city. The open area to the west of the city (in proximity to the city), will it remain open, will it be developed? The building possibilities to the east of the city depend on the geopolitical scenario; and the land reserves in cities like Modiyin and Beit Shemesh, will they be immediately available to all, or will they be made available in the "controlled release" method? Thus, there seems to be a complex array of issues whose solutions are not self evident.

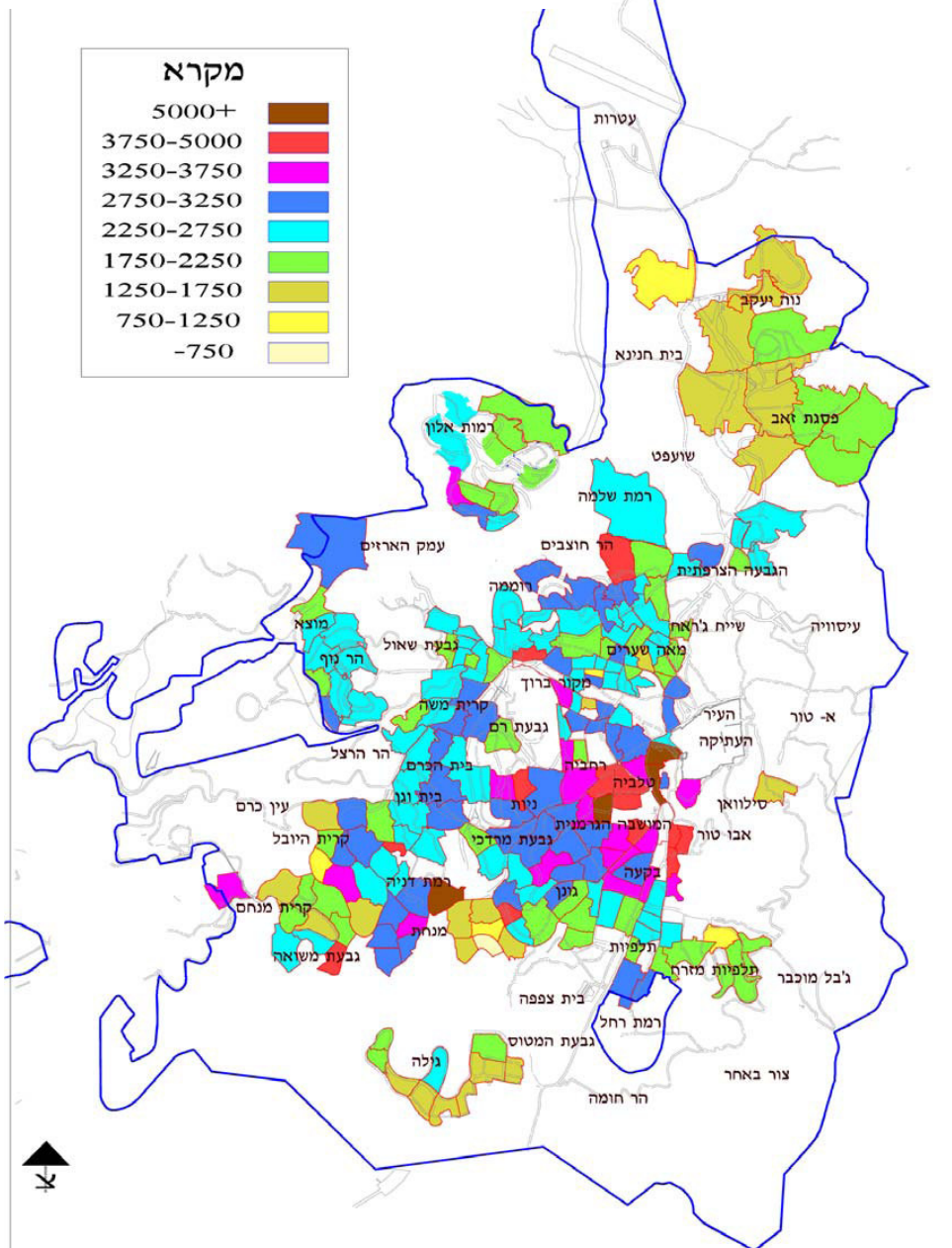
Suburbanization

In the "Suburbanization" part of Report No. 2, Economic Chapter, data is presented regarding the net emigration from Jerusalem. These data are briefly quoted below (see Figure No. 12). It seems that the acceleration in the negative immigration began in the early 90s, and was mainly eastward in nature. In the late 90s the immigration grew even more, but its direction changed and most of those leaving chose to live in the suburbs to the west of the city (including Modiyin). The suburbanization pattern in Jerusalem is not similar to the American pattern, where emigration to the suburbs was mostly by the affluent and educated population. It is also different from the European suburbanization pattern, where the elites remained in the city and the less affluent populations emigrated to the suburbs. Emigration from Jerusalem is characteristic of all population sectors: wealthy and poor, orthodox and secular (except for the Arabs). Each one of these groups has their own reasons for leaving, but one thing is certain (and is even evident in studies conducted in this matter), price has a substantial part in the emigration destination. It is possible that westward emigration points to two factors influencing the choice of the suburban destination, the security situation and proximity to Tel Aviv.

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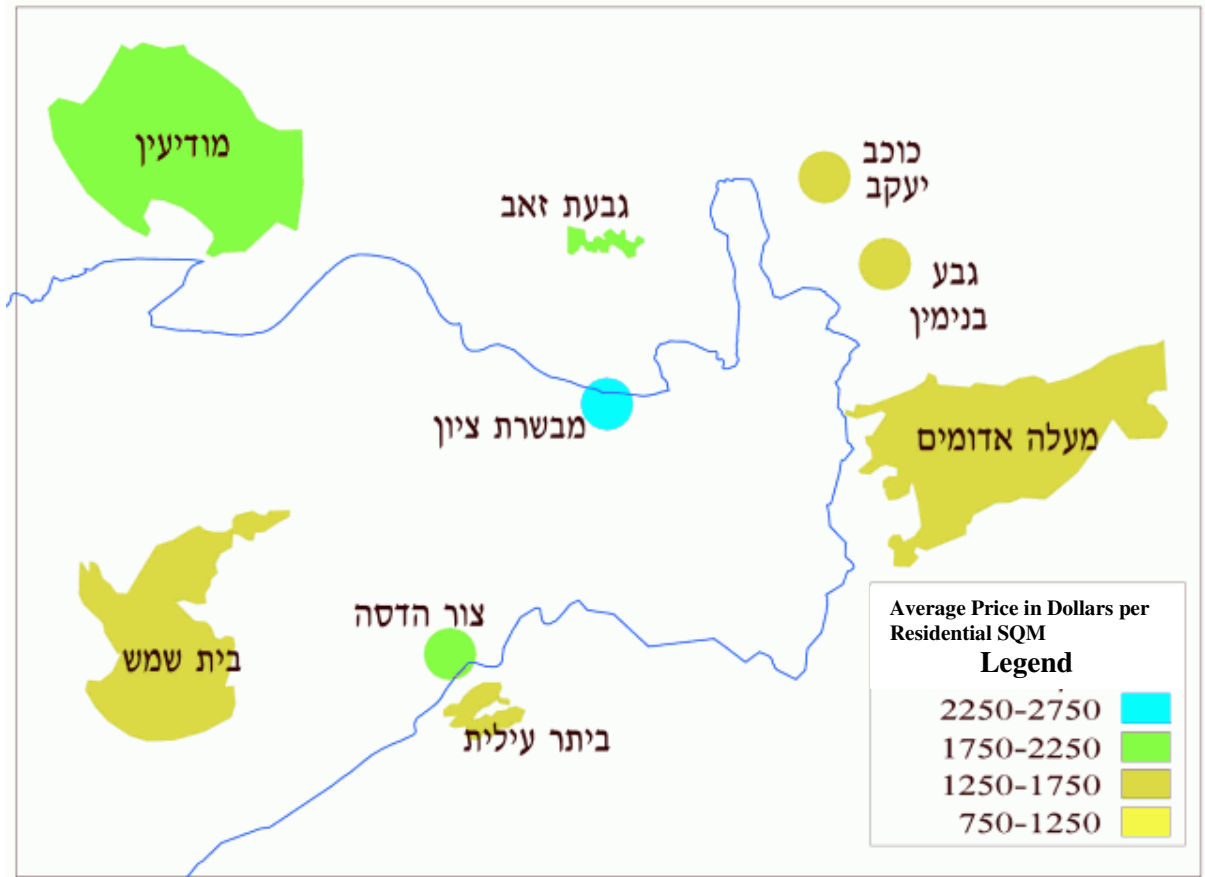
Figure No. 10: Housing Costs in Jerusalem (prior to registration blocks) in 2000

Average Price in Dollars per Residential SQM for 2000 – in Different Areas in the City



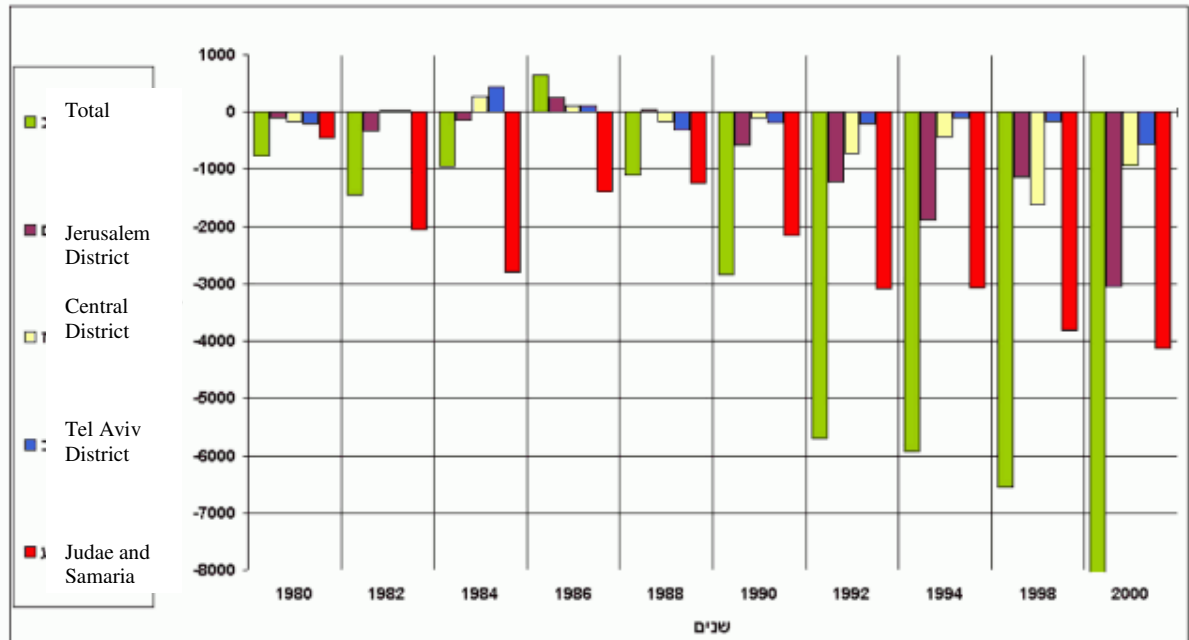
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Figure No. 11: Housing Costs in Select Towns in the Jerusalem Area – 2000



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Figure No. 12: Immigration Balance of Jews to and from Jerusalem (in select districts) 1980-2000



Source: The Jerusalem Annual – The Jerusalem Institute for Israel Studies 2000

8.3 Future Forecast

8.3.1 Initial Conditions

Assets

- **The "Jerusalem" brand:** there are few names recognized around the world like the name "Jerusalem". Jerusalem is a brand that can be economically helpful.
- **The City Center:** Jerusalem's center is located between three anchors: the Old City, the city entrance and the Government building area and the Hebrew University in Givat Ram, which make up a unique combination.
- **Advanced industries:** Manufacturing industries are relatively few in Jerusalem. But the share of advanced industries is significant. A variety of start-up companies and advanced production companies have already decided to locate to the city. There is a large concentration of these industries in Har Hozvim, but there are many distributed throughout the city.
- **Higher education, an advanced industry producing for the external market:** The educational industry, which is the largest industry in the city, includes the higher-education industry that also produces for the external market and meets most of the criteria identifying an advanced industry. This is also the case

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regarding the Hebrew University and the Bezalel Academy, as well as the higher yeshivas and the kollels.

- **The essence:** the culture of education, the attitude towards learning, students and teachers, and the perseverance in learning in the orthodox community.
- **Infrastructure:** large investments were made in recent years in infrastructure, and are still being made today, giving the city an advantage. Particularly prominent are investments in the transportation system (the road system and the mass transportation system).
- **Unexploited potentials:**
 1. Unexploited potential in the intellectual power of the "studying community".
 2. Unexploited potential in Arab women who do not participate in the workforce and in Arab men and women who do not hold academic degrees.
- **There is more than just economy!** Even though the orthodox population is economically disadvantaged, it is socially strong: the orthodox population is organized as a community (communities), that maintain a social cohesion, grow at a fast pace, adhere to the city and are accumulating political power.

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Problems

- **Community:** 3 different population groups that differ in culture, wealth, dynamics and unexploited potential. 2 of them act as communities (for better or for worse) and the third is trying to apply universal values.
- **The number war:** the population dynamics in the city threaten its cohesion and strength.
- **Wealth:** Jerusalem is a poor city.
- **Suburbanization:** many are moving to the suburbs.
- **Additional construction areas:** on the Jewish side these have almost been depleted, on the Arab side there is a potential that is not yet being exploited.
- **A competitive advantage to the suburbs:** in the west they are cheap, close to the heart of the country and enjoy a high level of security.
- **The City Center:** this is still the main concentration of activities and variety in the city, but is under threat from increasing competition.
- **We would like that the residents of the suburbs, "even if they live outside, will act within":** the trains from Beit Shemesh and Modi'in to Tel Aviv will do the opposite.
- **Unexploited potentials:** the workforce, and especially the intellectual power of disadvantaged populations, do not participate in the economy.
- **Interaction:** the interaction between academia and the rest of the economy is lacking.
- **Clustering:** lacking in the city is a concentration of activity centers including education and research institutions, start-up companies, advanced industries companies, and services specializing in all these, or in short, "clustering" (see the chapter dealing with employment).
- **Transportation:**
 - There is a lack of suburban trains.
 - There is no express train to Tel Aviv.
 - Planning of the light rail, as it is today, does not connect the clusters to the city center.
- **The intellectual strength of the disadvantaged populations:** the city does not have sufficient technological schools, that will empower the disadvantaged populations.

8.3.2 Strategy

The strategy chosen by the planning team is one that is intended to strengthen Jerusalem's unique qualities, as it cannot compete with the suburbs, not in price, not in proximity to Tel Aviv and not in "a feeling of open spaces". Jerusalem can compete with them if it can offer urban quality and efficiency. In order to achieve these, the planning team suggests the following:

- **A quality urban environment:** both built and open.
- **Concentration and variety:** of residential areas and centers of activity.
- **Industries:** attracting advanced industries producing for the external market.
- **Interaction:** between academia and the rest of the market.
- **Fast transportation:** in, and to, the city.

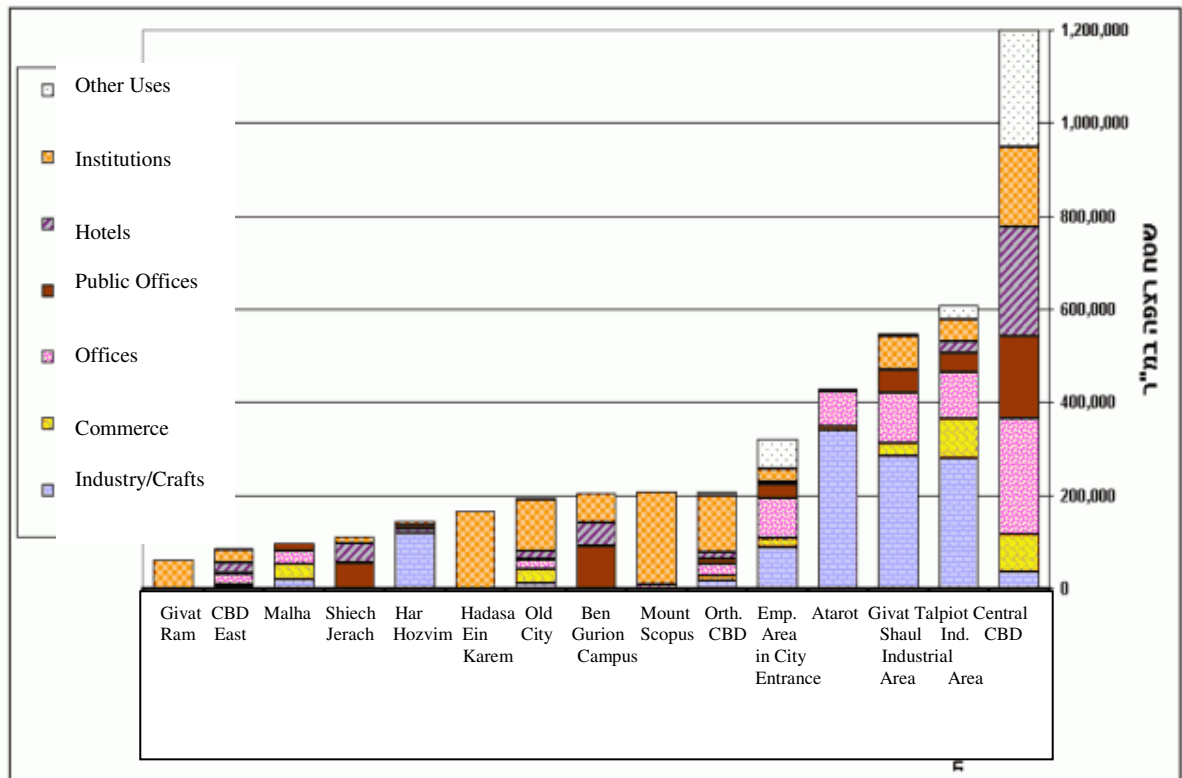
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- **Specialization:** in the city and by the city.
- **Potential:** tapping the potential hidden in disadvantaged populations.

8.4 Concentration, Variety and Specialization

8.4.1 The City Center

Figure No. 13: Land Utilization in the Main Employment Areas



From Figure No. 13, that displays the land utilization in Jerusalem's employment areas, we can see that while each of the areas has one or two types of land use, the central business center has a high concentration of all types of land uses. It seems that Jerusalem's city center is specializing in that it offers the widest selection of activities in its field, despite the emigration of important activities from the city limits (government offices, commerce, higher education, offices). By use of the first light rail line, it is possible to extend the center's boundaries, to shorten the distance between all its different parts in terms of transportation time, and to increase the variety of activities and employment opportunities in it. However, in order to achieve these goals, the city center must go through the government offices and the Hebrew University in Givat Ram (up to the employment area suggested in the plan, in the Millennial Housing Project, see Chapter 14 below).

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8.4.2 Specialization

It is impossible to maintain a high standard of living without specialization. Specialization of the centers of activity within the city, of the city vis-à-vis the suburbs, and of Jerusalem vis-à-vis the Tel Aviv metropolis.

Specialization in the City

The market engenders specialization, and specialization engenders completeness that increases the system's efficiency. If a mass transportation system leads into the city center, and the city center will have few parking spaces near the place of business, and in Malcha there are many such places and is accessible by a highway, then Malcha will specialize will specialize in shops for products "that are loaded in the trunk" (for example shops for electrical appliances and DIY products), and the city center will specialize in products that "can be carried in the pocket or in a bag" (jewelry, watches, books and clothing). In the field of commercial services, it will be possible to strengthen the competitiveness of the city center by advancing the creation of the suburban rail system and the express train from Jerusalem to Tel Aviv and by creation of mass parking lots in the city outskirts. The Government building area can be a base on which a competitive advantage can be built for specialized commercial services, needed in its proximity. A cluster planned for Givat Ram and its surroundings that will enjoy the proximity to the Government Campus, the University and the Shaarei Tzedek Hospital, will strengthen this advantage. The cluster will specialize in advanced industries from this wave and the next one and the presence of the Hebrew University, the Shaarei Tzedek and Hadasa hospitals in the city and their connection by a mass transit system will lead to a specialization in industries based on the life sciences. The "gem" in the cluster that will be created around Shaarei Tzedek will specialize in that field, but in a religious environment and will enable religious people to take part in the great variety offered by the center and the cluster without foregoing the possibility to work in an internal, controlled environment, as they wish.

Specialization in the Center

Within the city center's boundaries will be an area serving as a "forum". This will be the place where citizens encounter one another, meet each other, "window shop", go for recreation or protest; an area of restaurants, shops and pedestrian malls. The forum will be located more or less within the boundaries of the city center, as it is today. South-east of the forum lies the Old City, to its north is the orthodox center, to the east is the Arab Main Commercial Center and to its south and west the cluster will be formed. All these components will complement each other and together will constitute an extensive city center. This change will not happen on its own. The light rail that will shorten, among other things, the time distance between the cluster and the "forum", will be the driving force behind the change. Renovating the current city center, removal of the "flood of buses" from Jaffa Street and creation of streets that serve their purpose, and will not be transportation routes, can aid (in the western part of the main commercial center) the entrance to the city and will act as the link connecting the cluster and the forum, that will also be a critical element in the array of actions that will create the change. All in all, the cluster and the existing center do not compete with one another, rather, they complement each other. Creation of the

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intended employment cluster on national lands, facilitating its creation, can speed the "forum's" flourishing.

Influence

Large-scale matters and matters to which the government is party: Where can we have an effect on the city's specialization? It is possible to exert an influence mainly in large-scale and differentiated matters, or in matters to which the government is party. It is possible to prevent the creation of malls that will compete with the city center, it is possible to influence the district government offices to return to the center, and it is possible to create a university and dormitories in the city center (see chapter no. 5).

Indirectly: for example by planning the transportation and parking layout in, and to, the city by allocating the right areas. Even then, one needs to remember that if we do not give them what they want inside the city, they have a choice to find it outside.

Management company: It is possible to influence the creation of a management company that will manage the center and/or the cluster together and will decide who goes where (like a management company in a mall, for example). It is doubtful whether such a complex and varied thing as a city center can be managed, better than the market. What the center's manager will be able to do better than the market is managing land and the public services offered in it.

Facing the Country's Heart

In face of the country's heart, Jerusalem can employ a variety of specialization strategies, according to its existing, or potential, competitive advantage in each and every industry.

The Best

Jerusalem has industries in which she can excel, with a little effort. Two prominent ones are: secular higher education and religious higher education. Jerusalem has concentration of high-yeshivas and kollels that attract students from Israel and from abroad, and about 70 percent of Hebrew University students are from outside the county. The third, if less prominent, industry is the concentration of basic and practical research in biological fields in the Hebrew University and in the hospitals (primarily in Hadasa). In next-generation industries, that will apparently be based on biological and information sciences, Jerusalem is indeed in the forefront. Another field in which Jerusalem has a distinct advantage is the study of arts in Bezalel and in the Academy of Music and Dance. Additionally, the tourism industry in Jerusalem has an advantage in the quantity and quality of sites, over every other place in the country, as every tourist that visits Israel comes to see Jerusalem.

Stragglng Leader

In terms of upcoming industries of this generation, the ICT (Information & Communication Technologies) industries, Jerusalem is not at the forefront. When the ICT industries recover, Jerusalem could be like Raanana and Kfar Saba, and "eat the crumbs from Tel Aviv's figure". But in order to achieve this, Jerusalem requires a

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fast, constant and reliable connection to the heart of the country and the cluster, which will have a wide, unique variety of activities.

Leading Its Niche

In the field of commercial services, Jerusalem can employ a "leading the niche" strategy. Jerusalem houses most of the government, and even if the government were to diminish in size, there would still be many people dependent on it. Lawyers working with the Supreme Court, industrialists working with the Ministry of Industry and Trade, start-up industries working with the Chief Scientist, and so forth. This association can be exploited in order to nurture commercial service industries that will benefit from the possible interaction with the government bodies in Jerusalem. Should this strategy succeed, it will have a synergic effect on all other industries in the city.

Tourism

The "tourism industry" is an integrated industry that includes, besides hotel accommodation, restaurants and cafes, transport (buses, cabs, airlines), travel agents, tour guides and international conferences. We estimate that for every dollar spent by a tourist in a hotel, there are four more dollars spent on peripheral services.

From analysis of the data in Report No. 3, it appears that the tourism industry is growing in recent years, despite considerable fluctuation. Tourism has been a leading industry throughout the years and the export component in it is relatively large.

The tourism industry in Jerusalem has a number of unique characteristics that are worth mentioning:

- ◆ Exploitation of an existing local resource – the "Jerusalem brand" is a brand of location that cannot be "transferred" elsewhere. This brand has a large global market whose exploitation will enable to strengthen Jerusalem's international status.
- ◆ A very large variety of tourism sites.
- ◆ A place sacred to the three monotheistic religions that, in times of peace, can be a global focal point for tourism.
- ◆ Strengthening the city's status as a center for international congresses and conferences.
- ◆ Employment – Enables division of the unskilled workforce, to be employed according to their abilities.
- ◆ Economy – Strengthening Jerusalem's attraction enables the establishment of the city's economic status.
- ◆ Activity and reputation – Tourism increases the activity taking place in the city. The creation of tourism functions and upgrading the streets and the public spaces serving tourists, also benefits the city's residents, who get to meet people from all over the world who, on their part, spread the city's reputation back in their home countries.

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Facing the Suburbs

Concentration and Variety

Vis-à-vis the suburbs, Jerusalem will specialize in the concentration and variety of the activities it offers. The City Center will be larger and more varied than anything possible in a suburb. The academic education system in the city will be better than anything found in the suburbs. The cultural life, arts and entertainment offered by the city, to the whole variety of populations and cultures, both local and foreign (tourists), will be larger than any found in any one single suburb, or all of the suburbs combined.

Transportation

So that the residents of the suburbs will come to interact in the city, a constant, fast and reliable transportation system is required, that will bring those residents to the city. Such a system exists today, but it connects the large suburbs, Beit-Shemesh and Modiin, to Tel Aviv.

East and West

We must distinguish between those suburbs that lie to the west of the city, and those that lie to the east. Jerusalem's attraction will be sufficient to bring those living in the suburbs to the east. Regarding those that live to the west of the city, the competition with the country's center will be very difficult.

8.5 Unexploited Potential

8.5.1 Population Characteristics in Jerusalem

From analyzing the data in Table No. 2 below, and from analyzing the demographic and economic characteristics of the population in Jerusalem, we can draw the following conclusions:

Table No. 2: Per Capita Income, in Jerusalem, Tel Aviv and in Israel (1995)

City	Per Capita Income (NIS/month)
Jerusalem	1,355
Jerusalem Arabs	472
Jerusalem Orthodox Jews	620
Jerusalem Non-Orthodox Jews	2,161
Israel	1,900
Tel Aviv	2,520

Source: Analysis according to the CBS

The average income in Jerusalem is lower than that of Israel in general or that of Tel Aviv. When considering the causes of Jerusalem's relative poverty and the relative poverty of the Arab and Orthodox populations in it, we must remember four factors that influence the living standards in the city: the population composition, the share of the potential workforce (those 15 years of age and older) in the population, the percentage of participation in the workforce (out of the total potential workforce), and the percentage of those holding academic degrees in the potential workforce. It

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appears that Jerusalem's poverty is not an unfortunate event, it can be explained, as well as the poverty of every population group in the city, through those factors.

Table No. 3: The Causes of Jerusalem's Relative Poverty

Factor	Out Of	Units	Orthodox Jews	Arabs	Non-Orthodox Jews
Population Size		Thousands	167	207	289
PWF ¹	Population	Thousands	51	59	76
Participation in the Workforce	PWF	Percentage of Sector	41	34	61
Academic Degree Holders	PWF	Percentage of Sector	13	9	24
Multi-year Studies					
13-15	PWF	Percentage	22	10	21
16+	PWF	Percentage	13	8	20

(1) The Potential WorkForce – or PWF in short. Source: Adapted from the 1995 Population and Residency Survey.

- A. The income of Orthodox Jews is lower than that of Non-Orthodox Jews and the income of Arabs is lower than that of the Orthodox Jews.
- B. The share of Arabs and Orthodox Jews in Jerusalem's population is larger than that of Tel Aviv and Israel in general.
- C. For the Orthodox and Arab populations, the share of young people in the population is large, and this explains the small share of the potential workforce (15+ years) from whence come the workforce participants.
- D. There is a low participation of Orthodox Jews in the workforce.
- E. There is a very low participation of Arab women in the workforce.
- F. The share of academic degree holders in the potential workforce is small in the Arab and Orthodox populations, compared with Non-Orthodox Jews.

As opposed to building a new city, like Modiin, in a large, existing city like Jerusalem it is very difficult to raise the average living standard, through changing the population composition. It is possible to raise the living standards in the city, mainly through tapping the unexploited potential of the city's existing population.

8.5.2 The Orthodox Population

Why have they chosen to live in such poverty?

According to the existing economy (inspired by positivism) "If they have so chosen, that means that this is the best alternative for them". But they did not choose to be poor. They chose a special way of life, unique to them, that under the conditions existing today, causes them to live in poverty. We cannot tell Orthodox people to

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behave like non-orthodox Jews so that their standard of living will go up. This attitude will not attain the goal.

A profound understanding of the orthodox life style is required, and according to this understanding an alternative must be found that will enable them to raise their level of income, without disturbing their way of life, their culture or their community. We must try to present an alternative that is not available to them today. By so doing, we will also decrease their dependence on the non-orthodox society. This dependency is not healthy for the orthodox society nor for the non-orthodox society.

They Do Not Come Empty Handed

We must remember that the orthodox population can bring the workforce a significant "dowry" that has proven itself throughout the ages both in Israel and in exile: the "learning society". This culture that centers on learning, where the community respects smart students, its method of teaching, the self-discipline and the commitment to learning that characterize the yeshiva, the logic that is the essence of the Talmudic debate, the father who "sacrifices himself for the sake of the Torah", the woman who strives to be like the wife of Rabbi Akiva, and the mother that will do anything so that her son will be wise in the Torah. All these are assets that do not go to waste in a wise student who, at the end of his studies, chooses to study law (according to a study by Prof. Amiram Gonen¹, there are law faculties in US universities where students receive credit for yeshiva studies). These assets are good not only for studying law, but for the study of any subject, from biology of computers to business management and marketing. And when these assets are turned to useful tools, they have an economic, scientific and cultural value that cannot be overestimated. The "hybrid wealth" that is formed when the gate is opened that separates the orthodox Jewish culture and the general Western culture, has tremendous strength, as many examples from Jewish history will prove. One can mention, in this context, the "hybrid wealth" that arose from the openness towards Muslim culture in Spain in the middle ages, and consequently towards Christian culture in Spain; the emancipation of Jews in Central Europe and the cultural thriving that characterized Jewish communities in Germany and Austro-Hungary afterwards; the Jewish immigrants from Eastern Europe to the US and also Israel. Albeit, this does not work for very long and after two or three generations we become "like all nations".

Universities and/or Colleges for Orthodox Jews

In order for orthodox Jews to receive "a tool that can be put to good use" it is important to adhere to the following rules:

- ◆ Not to do so inside the yeshiva.
- ◆ To enable higher studies and/or academic studies in an orthodox atmosphere.
- ◆ Not to "stuff them" with secular culture, only to hand them the "tool".

All this can be done in one orthodox university that serve the entire orthodox population or in several orthodox colleges, that will each target a certain sector of that population. Obviously, by orthodox we mean both men and women of the orthodox community, and naturally, these will not study together.

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The Orthodox Higher Education Industry in Numbers

It is hard to provide data on the number of students in the "learning society". In the report dealing with higher education (see Chapter 9 below) and in previous reports, we used CBS data according to Ministry of Religions data. Here, we present, with the help of Yeira Veizental, the numbers as they were provided by the yeshivas themselves:

Table No. 3: The Number of Yeshiva Students in Jerusalem

Type of Institution	Number of Institutions	Number of Students
Large Yeshivas	21	10,000
Large Yeshivas with Kollels	160	10,000
Only Kollels	250	10,000
Total Large Yeshivas and Kollels	377	30,000
Small Yeshivas	50	6,000

Source: The Committee of Yeshivas in Israel

According to this source, there are about 30,000 students in the large yeshivas and Kollels, of which about 6,000 are students from outside of Israel.

8.5.3 The Arab Population

Participation in the Workforce

An important factor in the low participation of Arabs in the workforce is the lack of participation by the majority of Arab women. Here too, it is possible to give up and say that this is "a cultural matter", but it is also possible to try and create the conditions that will enable them to increase their participation. For example, by creating workplaces that are close to home.

Brain Power

The El-Kuds University was consolidated into one single university only recently (1995). It was consolidated through the unification of several pre-existing institutions, located in several campuses, inside the city limits and outside them. El Kuds integrates the following institutions: the Theological College of Beit Chanina, the Medical, Science and Technological Colleges of Abu-Dis and El-Bira, Hind El Hussein Women's College (School of Arts) and the Center for Islamic Archeology in Sheich-Jerach. There are many fields of study and the university plans on becoming a Center of Excellence for the Palestinian people. Planned, is a \$60 million investment in construction in the Old City, in Beit Chanina and in Sheich-Jerach, and today there are 5,200 students attending the El-Kuds University, and the plan is to reach a goal of 6,000 students in two years. How many students will study in this university by 2020? Where will they come from? From Jerusalem or from outside of Jerusalem. Whence will the additional places required for the academic studies of

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Jerusalem's Arabs come from? All this depends on a geopolitical scenario, or in layman's terms, it depends on the location of Israel's eastern boarder and what will be permitted to pass through it (in this context, see Chapter 9).

8.6 Advanced Industries Producing for the External Market

8.6.1 Industries to be Attracted

The criteria for selecting those industries that the planning team believes need to be encouraged are:

- Fast growth rate.
- Ability to pay the manufacturing elements.
- Industries producing for the "external market".
- Global players.
- Survivability "under all conditions".
- Low, or controllable, environmental pollution.
- Esteemed by their employees or by the public.
- Synergy with additional industries.

We liked the ICT industries. They met all the criteria except one, "survivability under al conditions".

Table No. 4: ICT Industries Compared to the General Market (in percents, unless stated otherwise)

	1990	2000
GDP	5.0	13.6
Employees	3.5	6.0
Export	14.0	30.0
Product per Employee*	1.8	2.3

* The ratio between product per employee in the ICT sector and the general product per employee in the market.

Source: ICT Sectors (1990-2000), CBS.

In order to correctly estimate the higher-education industry, we must consider it according to the above mentioned criteria:

- Rate of Growth – not sufficiently fast in the college sector and slow in the Hebrew University.
- Ability to Make Payment – pays fair wages.
- Production for the External Market – yes, many students come from outside Jerusalem.
- A possible global player through appropriate marketing.
- Survivability Under All Conditions – much better than the tourism and ICT industries.

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- Low Environmental Pollution – yes.
- Esteemed by Its Employees and by the Public – the secular public values universities and the orthodox public values the yeshivas.
- Synergy with Other Industries:
 - Universities and colleges produce the manpower and the research that constitute a "fertile ground" for additional advanced industries.
 - Yeshivas produce "the diamond in the rough", through the synergy of the learning society and the general secular culture, a "hybrid wealth" may be formed that has a general cultural value that can have economic value as well.

The high-yeshivas meet most of the criteria set for the industries we prefer. They employ more and more people, they pay fair wages, they are clean and are esteemed both by their employees and by the orthodox community in general, they survive "under all conditions", and apparently they are also industries that produce for the external market. In the well-known high-yeshivas in Jerusalem, there are students from all over the country, as well as from abroad, however, they do not provide their students with a "useful tool".

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8.6.2 The Job Market in Jerusalem

Analysis of the market structure in Jerusalem is brought in depth in Reports No. 2 and 3 and in the chapter dealing with higher-education in this report. We find it appropriate to present some data that serve as a point of departure in deciding the planning policy.

Table No. 5: Employees in Israel and in Jerusalem, in percents by economic sector, 1999-2000.

Economic Sector	Jerusalem	Israel
	1999-2000	1999-2000
Agriculture		23
Manufacturing Industries	9.1	18.2
Electricity and Water		0.9
Construction	4.2	5.5
Wholesale, Retail and Repairs	10.6	13.4
Hotel and Food Services	5.5	4.4
Transportation, Storage and Communications	5.9	6.5
Banking, Insurance and Financial Institutions	3.1	3.4
Business Services	10.9	11.2
Public Administration	13.2	5.5
Education	17.8	12.5
Health and Welfare Services	11.5	9.8
Community, Social and Personal Services	6.7	4.8
Household Services by Private Workers	13	1.7
Total	100	100

Source: Statistical Annual of Jerusalem, 2000

Table No. 6: Manufacturing Industries in Jerusalem, Employee Number Estimate for Each Area and Sector, 2000

	Givat Shaul	Malcha	Har Chotzbim	Atarot	Talpiot	Other	Total	Percent
Software	944	1,377	3,220	0	349	278	6,169	26%
Hardware	273	571	3,635	0	116	65	4,661	19%
Biotechnology	143	0	664	75	48	85	1,026	4%
Traditional Industries	3,088	35	1,032	4,348	2,293	1,296	12,095	51%
Total	4,447	1,983	8,554	4,423	2,807	1,724	23,950	100%
Percent	19%	8%	36%	18%	12%	7%	100%	

Source: "Survey of Industries and Hi-Tech Companies in Jerusalem", Dialog, Organizational Development, Training and Advisory Company. The definitions used by this source differ from that of the CBS.

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8.6.3 Conclusions

Starting Point

- A. The education industry is the largest industry in the city and is the relatively large compared to Israel in general.
- B. Jerusalem's share in the public administration and in the education industry is very large, in absolute numbers as well as in relative share compared to Israel in general. On the other hand, the manufacturing and commercial industries' share is small, compared to their national average.
- C. About 49% of those employed in the manufacturing industries in Jerusalem, are employed in advanced industries.
- D. Those employed in advanced industries work in employment centers dispersed throughout the city.
- E. Jerusalem's share in current generation upcoming industries (software), is small compared to its share in the general population in Israel.
- F. Jerusalem's share in next-generation upcoming industries (biotechnology), is much larger.
- G. From analysis of the data presented in the chapter dealing with higher education, it appears that in the Hebrew University, the number of students studying biological sciences is much larger than Jerusalem's share in Israel's population, while the number of those studying mathematics and computer sciences is approximately equivalent to its share in the population (in the lower academic degrees).
- H. It is possible that it is no coincidence that in the current-generation upcoming industries, that are based on studies in mathematics, computers and engineering, Jerusalem's share is smaller than her share in the population, while Jerusalem's share in biology-based industries is larger. Support for this can be found in that the Weizmann Institute causes Rehovot's share to be larger as well.

I. Looking Towards the Future

- J. By 2002, between 170 to 220 thousand employees will be added to those currently working in Jerusalem. About 100 thousand of these additional employees will come from outside of Jerusalem, and about 30 thousand people will work outside the city. From the additional 170 thousand employees, about 100 thousand will work in industries producing for the local market while approximately 80 thousand will work in industries producing for the external market.
- K. The industries producing for the local market will grow according to the population's needs, and most of them have exclusivity in the local market.
- L. The living standard in Jerusalem will not improve if the city will not have the foresight to attract those industries producing for the external market.
- M. The suggested planning policy is to attract those industries that can better pay the manufacturing elements, grow and add employees, are global players, survive "in all conditions", do not pollute the environment and are esteemed by their employees.
- N. Each time a new generation of start-up industries emerges that meets these criteria, but what is common to all advanced industries is that they are based on human capital, mainly – scientists, engineers, business managers, accountants and

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- even lawyers. This trait will not change in the future and the higher-education institutions must be prepared.
- O. The industry in Jerusalem that has a competitive advantage and must be strengthened is the higher-education industry.
 - P. The interaction between academia and the rest of the market, is lacking.
 - Q. The city is lacking a cluster, meaning: a large concentration of activity centers (education, research, employment and services) that are "in reach".

8.6.4 Interaction Between Participants in the Technological Innovation Process

The Paradox: Capturing the benefits of technological innovation and research openness.

In the European Union report analyzing the success and failure factors of high-tech industries in various countries, emphasis is placed on the interaction between the universities and the research institutions, and the start-up companies. The conclusion of this report was that in countries such as Finland, Sweden and Denmark, this interaction is strong, while it is weaker in countries such as Germany, Spain and Italy. This interaction is not a simple one and we are actually faced with the following paradox: a start-up company intends to profit from a technological innovation that it has developed. In order to harness the innovation for its own benefit, it must prevent competitors from obtaining the knowledge that it has. This is done by registering a patent or by maintenance of confidentiality, but how can we expect the knowledge to be transferred between the various companies? The answer is "at the watercooler", meaning by informal interaction. In such informal interactions not all of the knowledge is transferred, but only the "peripheral" knowledge, and the secret is kept. Not without reason is this phenomenon more successful in smaller countries where people know each other, have confidence in each other and relations are less formal.

How do we strengthen this interaction?

- ◆ One solution is the creation of a cluster. It will be not be created "anywhere", but in close proximity to the City Center and near the university and the government offices, and by the highway leading to Tel Aviv.
- ◆ The creation of education and research institutions that have an organization culture that is friendly to the rest of the market.
- ◆ To employ people laid-off from the high-tech industry in academia – there they will change the organizational culture.

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8.7 How to Survive the Crisis?

We are in a state of crisis. The diagnosis shows all the characteristic symptoms: deflation, shrinking demand, decreasing prices, unemployment and negative growth intensify one another. These are the symptoms of a classic crisis, similar to the one that occurred in the 1930s. In order to solve this crisis, we must increase the deficit and invest in infrastructure, mainly in education. This investment in infrastructure creates immediate employment, while the end-product is not felt in the market for several years (until finishing the train or the road, for example). This, assuming that there is no market for investing in the infrastructure itself. Today, there are those who mock the employment methods of the 1950s, where unemployed people were sent to work in forestation, but the product received from forestry (wood) was utilized by the market after 20-40 years, while if we were to employ the people in the manufacture of vegetables, the endproduct (vegetables) would reach the market in that same year and put the existing vegetable growers out of work. What is required is to employ unemployed people in the manufacture of products that require a large number of workers, that do not reach the market quickly and that promotes production elements that enable a quick expansion of the market at the end of the crisis. The investment in education is an example for an investment in infrastructure. This is an investment that does not reach the market quickly, and strengthens our productivity in the future. In this crisis, the investment in education has several unique advantages compared to investments in other types of infrastructure. These are:

It is relatively work-intensive and therefore employs more people per shekel spent;

It can utilize unemployed people from the high-tech industry as manufacturing elements in the education process;

The product created by this industry will add to our strength in the start-up industries, at the end of the crisis.

We must remember that some parts of the education industry have a market, such as the colleges for example, but the investment in universities that teach and perform basic research, and the investment in the basic research institutions (such as the Weizmann Institute, for example), have no market, and here the government can invest and employ workers and accumulate intellectual capital that will strengthen the market in the future.

The high-tech industry suffers the most from this crisis. The blow it received is affecting other areas of the market as well. The brainpower of its employees has no other alternative here, but they can move and work elsewhere. If they go, it is doubtful that they will come back when we need them (we have not yet forgotten Amdocs' initiative to import programmers from India and create a development center for them in Cyprus).

Investment in all levels of education, including lowering tuition fees for students, and utilization of many of those laid-off from the high-tech industry who cannot find alternative employment in Israel, will be achieve several goals simultaneously. We would utilize a manufacturing element that today is free, we would prevent the emigration of educated people with proven industrial abilities, we would invest in a work-intensive infrastructure and so increase consumption more than if we were to invest in other types of infrastructure, and we would create manufacturing elements that will be required by advanced industries. We must remember that at their pinnacle, when the leaders of the high-tech industries we asked "what do you require?", they replied "education, education and more education". It should be added

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that even though we advocate privatization, the privatization of the education system in a time of crisis will miss the mark.

Research and Development in a Time of Crisis

The investment in research and development creates products that do not reach the market today (in the pharmaceutical industry, 16 years are required to create a product) and therefore in times of crisis when there are no private investors to fund the research and development, it is advisable for the government to take their place. This will provide employment for unemployed manufacturing elements (those laid off by the high-tech industry), it will increase our strength in the high-tech industries in the future and will complement and strengthen the academic system.

8.8 Summary

The economic chapters of the previous reports review and analyze Jerusalem's primary assets and the main problems facing it. The main conclusions stemming from this analysis are that the city is comprised of three communities, distinguished from each other in culture, wealth, dynamics and in their unexploited potentials. The share of disadvantaged populations is large, due to the city's unique demographic structure. The rate of workforce participation is small compared to the potential workforce and the percent of those holding academic degrees is low in two of these populations relative to the city average and compared to the national average. Thus, an important part of the workforce and intellectual wealth of the disadvantaged populations, is not utilized in providing subsistence.

The City Center still has the largest and most varied concentration of activities, but it is under threat and is finding it difficult to face the competition. By 2020, an additional 170 to 220 thousand people will seek work in the city, and we must locate and prepare the optimal locations for the employment centers where these people will work. Today, the interaction between the participants in the technological innovation is lacking, due to structural and organizational changes between the academic institutions and the industry. The education and research centers and advanced-industry factories are dispersed all over the city. Even the Hebrew University is divided into three separate, and distant, campuses.

The areas for additional residential construction have been almost completely depleted in the Jewish side of the city. This is a restriction that hinders the growth of the Jewish population in the city and causes a rise in housing costs, which is why annexing the areas to the west of Jerusalem is vital to the city's continued development. On the Arab side, there is a large construction potential which is yet to be exploited. This is a central reason for the Jerusalem's negative immigration, both of Jewish emigrants with relatively high incomes and of Jews with low incomes and especially by the orthodox population. Many of those leaving relocate to the suburbs. Even if room or incentives are not provided for all of them to live in Jerusalem, the preferred solution is that suburban residents, "even if they live outside, will act within".

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Since Jerusalem cannot compete with the suburbs in price nor in proximity to the activity centers in the "country's heartland", Jerusalem will be able to attract and concentrate economically strong populations, if it will have the foresight to offer a proven advantage in urban and environmental quality and efficiency.

The means required are not all contained in the narrow definition of economy. Some touch upon the educational field, some pertain to transportation, some to land allocation and some to organization. Following are the main means proposed, that have been discussed in detail in this chapter:

The quality of the urban environment – crowding the city, while maintaining the living standard. Organization and protection of the open landscape quality inside, and between, the neighborhoods.

Concentration and variation of the activity centers in the City Center – The City Center concentrates within its boundaries and in its surroundings a wide variety of activity and employment centers. It includes unique sites such as the Old City and the Government Campus, as well as high-quality religious campuses containing high-yeshivas, Betzalel and the Music and Dance Academy. In close proximity lie the city entrance complex, the Government Campus and the Hebrew University's Givat Ram Campus. Not far from the City Center lie the Mount Scopus Campus, the Shaarei Tzedek Hospital and most of the academic colleges.

The planning team suggests creating an employment, study and research cluster surrounding existent clusters, such as: the city entrance, the Government Campus, the Hebrew University, the Givat Ram Center for Science Industries and the Shaarei Tzedek Hospital. Begin Avenue will connect the cluster to the city entrance and to the Tel Aviv highway and the first light rail line that is under construction. It will also shorten the time distance between the activity and employment centers in the Center and in the cluster, so as to render them "nextdoor". Thus, the City Center will expand in area and in the variety of activities offered, and will include the Mount Scopus Campus, the city entrance and the Government Campus.

Specialization – Jerusalem must attract and invest in advanced industries producing for the external market, as Jerusalem is more competitive than Tel Aviv in the higher-education industry, both secular and religious, and is also possibly more competitive in next-generation industries (biotechnology and bioinformatics), both of which are advanced industries producing for an external market. Also, Jerusalem has a clear advantage in the tourism industry, including international conferences.

The Higher-Education Industry – in order to strengthen and establish Jerusalem's competitive advantage in higher education, it is advised to take the following steps:

- To create a technology and administration university in the City Center.
- To move the School of Agriculture to Jerusalem.
- To create a Jewish/international university where studies will be carried out in English, in the City Center.
- To encourage and aid the creation of student dormitories, in the City Center.
- To create the art colleges and additional small colleges, in the City Center.
- To strengthen the interaction between academia and the rest of the economy.
- To create an institute for matrix-based research.

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- To provide the orthodox population with a proper alternative, whether by university or by colleges.
- To provide the city's Arab population with a proper higher-education alternative, whether in an existing institution (El-Kuds), or otherwise.

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“Tapping the Unexploited Potentials” – There are large population groups in the city wherein lie unexploited potentials, that, when utilized, will contribute greatly to those population groups and to the city in general. Tapping the potential brainpower can be promoted through the creation of orthodox universities and colleges, creation of workplaces that are close to the home, and a “cluster gem” in a religious environment.

Fast Transport – improving accessibility inside the city through a mass-transit system, connecting the suburbs with the City Center, by use of a suburban rail system (on the rail route that will serve suburban trains) and connecting Tel Aviv and Jerusalem, by an express train.

Organization – the populations' dynamics inside the city and between the city and its surroundings, evokes a new consideration of the municipal and metropolitan organization. The unflattering performance of the education system give cause to rethink its reorganization. The shabby state of the City Center demands a creative rethinking of the Center's organization. The obstacles and the bureaucratic complications demand a rethinking of the planning and registration system's organization.

Government Aid – the Knesset passed the Basic Law: Jerusalem (1980) from an understanding of the complexity of the problems facing Israel's capital. The law enabled, and even created, an aid mechanism unique to Jerusalem. Analysis of the city's economic reality shows that only with the government's help can the city face its problems, and especially:

- Investing in the transportation infrastructure: an express train to Jerusalem, main traffic arteries and the completion of a mass-transit system.
- Preferential encouragement ('A' level development area) for investing in high-tech companies, and especially in the field of biotechnology.
- Aid to academic institutions, including investment in high-tech and bio-tech research and development.
- Nurturing the city's human capital, and especially aiding the professional training of disadvantaged populations.
- Strengthening the city's status as Israel's capital city, by moving economic, institutions, moving government company offices and the IDF's high-education institutions.
- Providing aid to strengthen the city's status in higher education, by moving the School of Agriculture to Jerusalem, creating an English-speaking international university in the City Center, creating an orthodox university and/or colleges in the orthodox environment and strengthening the interaction between academia and the other sectors of the economy.
- Increasing the government's participation in the Small Businesses Aid Fund.

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- Giving preference and grants to advanced industries through real estate prices, development costs, expropriation for public purposes, etc.