

Projections of Israel's Population until 2025

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1. PREFACE

Population projections are a major tool for future policy-making and socio-economic planning on a national level, as well as for research and analysis of future trends in society. The last projection was published in 1999, based on data from the 1995 Population and Housing Census. This publication presents a set of updated projections for the population of Israel up to 2025. These projections were calculated on the basis of population estimates for the end of 2000, taking into account the demographic trends recorded in recent years.

Although these projections are not intended to predict the future, they provide a framework for planning socio-economic policies for the next two decades. The projections are presented according to three variants (high, medium, and low), each of which reflects an anticipated population growth rate.

2. FINDINGS¹

2.1 Main Findings

One main projection finding relates to the continuing rapid growth of the Israeli population, which has been accompanied by an increase in the share of the elderly population. The labour force in Israel will age gradually over the next 25 years. The “burden” of the elderly population (aged 65 and over) will increase, and the “burden” of children (aged 0-14) will decline.

By the end of 2025, the population of Israel will range from 8.8 to 9.8 million, depending on the variant, i.e., the population growth rate will range from 38% to 54% between 2000 to 2025.

The Israeli population is in the process of aging, as in most Western countries. This process will continue in the future, as expressed in the declining percentage of children aged 0-14 (between 23% and 28% in 2025, compared with 28.5% in 2000). Concomitantly, the proportion of elderly persons aged 65+ will continue to rise (from 10% in 2000 to 12%-13% in 2025).

The median age of the total population will rise by three years, so that by the end of 2025 half of the Israeli population will be under age 31, and half will be over that age (according to the medium variant).

¹ Note: The analysis of the findings refers to the medium variant, unless otherwise specified.

Additionally, changes are expected in the composition of the Israeli population, by population group.

The relative share of “Jews and Others”² in the total population will continue to decline, and by the end of 2025 that population group will comprise about 75%-76% of the total population (from 6.7 million to 7.3 million, depending on the variant), compared with 81% at the end of 2000.

At the end of 2025, the Jewish population of Israel will range from 6.3 to 6.8 million, and the relative share of Jews in the total population will decline to 69%-71%, compared with 78% at the end of 2000.

Concomitantly, the Arab population will continue to grow at a higher rate than the population of Jews and Others, and the relative share of Arabs will increase. By the end of 2025, the Arab population of Israel will range from 2.1 million to 2.5 million (depending on the variant). Thus, within 25 years, the Arab population will have grown by over one million persons. The proportion of Arabs in the total population will increase from 19% in 2000 to 24%-26% at the end of the projection period.

2.2 Changes in Population Size

Total Population

- By the end of 2025, the **population of Israel** is expected to be 9.3 million – almost 1.5 times more than in 2000 - based on an average annual growth rate of 116 thousand persons.
- The average annual growth rate is expected to decline from 1.6% in 2001-2015 to 1.3% in 2016-2025. This rate is considerably lower than the growth rate of the **Israeli population** in the 1990s, which was 2.8% on the average. The slowdown in the growth rate can be attributed primarily to a substantial decline that is expected in the number of immigrants.
- The migration balance will contribute about 9% to the total increase in the **Israeli population** between 2001 and 2015, and only 3% to the increase between 2016 and 2025. By comparison, during the 1990s, when there was a major wave of immigration (mainly from the former USSR), the migration balance contributed nearly 50% to the total increase in the Israeli population (about 48%).

² The population of “Jews and Others” includes Jews, non-Arab Christians, and those not classified by religion.

Jews and Others

- At the end of 2025, the **population of Jews and Others** is expected to reach 6.9 million. During that year, Jews and Others will comprise 75% of the total population of Israel (compared with 81% in 2000). Thus, the population of Jews and Others is expected to increase by 34% over a period of 25 years, at a rate of 70 thousand persons per year.
- The average annual growth rate is expected to be 1.3% between 2001 and 2015, and 1.0% between 2016 and 2025.
- **The Jewish population** in 2025 is expected to number 6.5 million (94% of the population of Jews and Others, and 70% of the total Israeli population). By comparison, at the end of 2000 Jews comprised 96% of the population of Jews and Others, and 78% of the total Israeli population).
- **The population of “Others”**³ in 2025 is expected to number 435 thousand (6% of the population of Jews and Others, and 5% of the total Israeli population). In 2000, that group comprised 4% of the population of Jews and Others, and 3.5% of the total Israeli population.
- The growth rate of Jews is expected to be the lowest of all religions, and will average 1.1% per year between 2001 and 2025.

Arab Population

- By the end of 2025, the **Arab population of Israel** is expected to number 2.3 million. Thus, between 2001 and 2025 the Arab population will have doubled, and the average annual rate of increase will be about 45 thousand persons.
- According to our projections, the average annual rate of increase is expected to decline from 2.9% between 2001 and 2016 to 2.5% between 2016 and 2025.
- **The Moslem population** is expected to number 2 million in 2025, comprising 86% of the total Arab population and 22% of the population of Israel. By comparison, in 2000 the Moslem population comprised 82% of the Arab population and 15% of the population of Israel.
- The growth rate of the Moslem population will be the highest of all religions, and is expected to reach an average of 2.9% per year between 2001 and 2025.

³ Including “Other (non-Arab) Christians” and “Not Classified by Religion”, see Population Group and Religion in Section 4.1 – “Definitions and Explanations”.

2.3 Changes in Age Composition (Population Aging)

Total Population

- Until 2010, the proportion of children aged 0-14 years is expected to remain stable (about 28% of the total **population of Israel**), and persons aged 65 and over will continue to comprise somewhat less than 10% of the **total population of Israel**, as they did in 2000.
- In contrast to the short-term projection, the aging process of the Israeli population will gain momentum between 2011 and 2025, and by the end of that period persons aged 65 and over are expected to comprise 13% of the overall population (compared with 10% in 2000 and in 2010). The proportion of very old persons **aged 75 and over** in the overall population is expected to increase to 5.5% in 2025 (compared with 4% in 2000 and 4.5% in 2010).
- Concomitantly, the proportion of children **aged 0-14** in the total population is expected to decline from 28.5% at the end of 2010 to 26% at the end of 2025. In 2000, children **aged 0-4** comprised 36% of the population in the 0-14 age group (about 10% of the total population). This proportion is expected to drop to 34% (about 9% of the total population) by the end of 2025.
- Between 2001 and 2025, there will be a substantial increase in the **70-79** age group, which is expected to grow by 90% within 25 years. The reason for this exceptionally significant increase is that by 2025 the “baby boomers” (those born after World War II, who arrived in Israel with the large influx of immigration that accompanied the establishment of the State)⁴ will be in this age range.
- Regarding the **80 and over** age group, even though the growth rate is expected to exceed that of the total population, it will be lower than in the 70-79 age group (78% by 2025). These were the “lean” cohorts, born during the period of economic crisis prior to World War II and during the war.
- The dependency ratio⁵ (ratio of “dependents” to “supporters”) is expected to decline slightly, from 886 “dependents” per 1,000 “supporters” at the end of 2000, to 867 “dependents” per 1,000 “supporters” in 2025.
- The median age of the **Israeli population** is expected to increase to 31 years (compared with 28 in 2000).

⁴ For a definition of the term “baby boom” see the “Definitions and Explanations” chapter of this publication.

⁵ For a definition of the term “dependency ratio” see the “Definitions and Explanations” chapter of this publication.

Jews and Others

- Among the population of **Jews and Others**, which was relatively old in 2000, the aging process will continue in the future. The proportion of persons aged 65+ in that population will remain about 11% until 2010, as it was in 2000. However, in the longer term the share of this elderly population (aged 65+) will reach 15% by 2025. Concomitantly, the share of children aged 0-14 will decline, from 26% in 2000 to 23% at the end of 2025.
- The dependency ratio of this population will remain almost unchanged: 827 “dependents” per 1,000 “supporters” at the end 2025, compared with 832 “dependents” per 1,000 “supporters” at the end of 2000.
- During this period, the median age of the **Jews and Others** population is expected to increase from 30 years in 2000 to about 35 years in 2025.
- The proportion of persons aged 65+ in the **Jewish** population is expected to increase gradually, from 12% in 2000 to 15% in 2025. Concomitantly, the proportion of Jewish children aged 0-14 is expected to decline from 26% to 23%.
- In addition, the population of **Others**, which was very young in 2000 (only 5% were aged 65+), is expected to begin aging, so that according to our projection, by the end of 2025 the percentage of persons in the 65+ age group will increase to 14%. Concomitantly, the proportion of children aged 0-14 in this category is expected to decline from 23% to 18%.

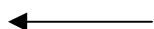
Arab Population

- **The Arab population**, which was characterized by a low percentage of older persons up to 2000 (3% were aged 65+ at the end of 2000) and a very high percentage of children (41% were aged 0-14 at the end of 2000), is expected to undergo a slow process of aging.
- At the end of 2025, the percentage of persons aged 65+ in this population is expected to increase to 5%, while the population of children aged 0-14 is expected to decline to 35%.
- The dependency ratio among the **Arab population** is expected to decline, from 1,165 “dependents” per 1,000 “supporters” at the end of 2000 to 998 “dependents” per 1,000 “supporters” in 2025.
- The median age of the **Arab population** is expected to remain almost unchanged until the end of 2010 (about 20 years of age). However, by the end of the projection period (in 2025), the median age is expected to increase to 23.

SUMMARY TABLE A.- POPULATION IN BASE YEAR 2000(1),
AND PROJECTION FOR 2010 AND 2025,
BY VARIANT, POPULATION GROUP,
RELIGION AND AGE

לוח סיכום א. - אוכלוסייה בשנת הבסיס 2000(1),
ותחזית לשנים 2010 ו-2025,
לפי חלופה, קבוצת אוכלוסייה,
דת וגיל

Thousands								אלפים
Age	2025			2010			2000	גיל
	נמוכה Low	בינונית Medium	גבוהה High	נמוכה Low	בינונית Medium	גבוהה High	שנת בסיס Base year	
Total population(2)								כל האוכלוסייה(2)
Grand total	8,803.2	9,261.7	9,787.7	7,465.0	7,542.3	7,616.8	6,365.8	סך כולל
0-19	2,759.7	3,124.4	3,507.9	2,681.4	2,724.2	2,764.9	2,367.1	19-0
20-64	4,884.0	4,961.2	5,079.5	4,063.3	4,092.3	4,121.1	3,375.9	64-20
65+	1,159.5	1,176.0	1,200.3	720.2	725.8	730.7	622.8	+65
Jews and others								יהודים ואחרים
Grand total	6,681.1	6,941.6	7,287.7	5,891.5	5,953.6	6,015.7	5,180.6	סך כולל
0-19	1,917.9	2,084.7	2,288.2	1,904.8	1,932.4	1,960.7	1,765.6	19-0
20-64	3,722.8	3,800.1	3,918.3	3,325.0	3,354.0	3,382.8	2,828.6	64-20
65+	1,040.3	1,056.9	1,081.1	661.7	667.3	672.2	586.4	+65
Thereof: Jews								מזה: יהודים
Total	6,285.7	6,506.9	6,754.2	5,567.5	5,615.4	5,654.8	4,955.4	סך הכל
0-19	1,822.7	1,978.2	2,143.6	1,814.3	1,837.5	1,858.0	1,695.3	19-0
20-64	3,479.0	3,531.3	3,595.6	3,115.6	3,135.5	3,150.7	2,684.7	64-20
65+	984.0	997.4	1,014.9	637.6	642.4	646.2	575.4	+65
Arab population(2)								אוכלוסייה ערבית(2)
Grand total	2,122.1	2,320.0	2,500.0	1,573.5	1,588.6	1,601.0	1,185.2	סך כולל
0-19	841.8	1,039.7	1,219.7	776.6	791.8	804.2	601.5	19-0
20-64	1,161.1	1,161.1	1,161.1	738.3	738.3	738.3	547.4	64-20
65+	119.2	119.2	119.2	58.5	58.5	58.5	36.4	+65
Moslems								מוסלמים
Total	1,813.7	2,003.3	2,175.0	1,318.2	1,332.7	1,344.3	970.0	סך הכל
0-19	743.9	933.5	1,105.2	679.0	693.5	705.1	511.5	19-0
20-64	979.4	979.4	979.4	597.0	597.0	597.0	433.7	64-20
65+	90.4	90.4	90.4	42.2	42.2	42.2	24.8	+65
Christians - total								נוצרים - סך הכל
Grand total	193.9	198.4	212.3	162.3	162.7	165.1	135.1	סך כולל
0-19	56.2	59.4	65.1	53.7	54.0	54.7	48.0	19-0
20-64	112.3	113.5	120.3	93.6	93.7	95.1	77.0	64-20
65+	25.3	25.5	26.9	15.0	15.0	15.2	10.2	+65
Thereof: Arab Christians								מזה: נוצרים ערבים
Total	149.7	152.3	154.9	128.0	128.3	128.5	111.4	סך הכל
0-19	45.1	47.7	50.3	45.0	45.2	45.4	42.1	19-0
20-64	87.4	87.4	87.4	72.4	72.4	72.4	61.8	64-20
65+	17.2	17.2	17.2	10.7	10.7	10.7	7.5	+65
Druze								דרוזים
Total	158.7	164.4	170.1	127.2	127.7	128.2	103.8	סך הכל
0-19	52.8	58.5	64.2	52.7	53.2	53.7	47.9	19-0
20-64	94.3	94.3	94.3	68.9	68.9	68.9	51.9	64-20
65+	11.6	11.6	11.6	5.7	5.7	5.7	4.1	+65
Religion unclassified								ללא סיווג דת
Total	351.2	388.7	476.1	289.7	303.8	324.4	201.5	סך הכל
0-19	84.1	94.9	129.8	81.8	86.1	93.5	64.4	19-0
20-64	218.9	242.6	289.7	188.2	197.1	209.5	128.7	64-20
65+	48.2	51.2	56.6	19.8	20.5	21.5	8.4	+65



SUMMARY TABLE A.- POPULATION IN BASE YEAR 2000(1),
AND PROJECTION FOR 2010 AND 2025,
BY VARIANT, POPULATION GROUP,
RELIGION AND AGE (Cont'd)

לוח סיכום א. - אוכלוסייה בשנת הבסיס 2000(1),
ותחזית לשנים 2010 ו-2025,
לפי חלופה, קבוצת אוכלוסייה,
דת וגיל (המשך)

Percentages								אחוזים
Age	2025			2010			2000	גיל
	נמוכה Low	בינונית Medium	גבוהה High	נמוכה Low	בינונית Medium	גבוהה High	שנת בסיס Base year	
Grand total	Total population(2)						כל האוכלוסייה(2)	
0-19	31.4	33.7	35.8	35.9	36.1	36.3	37.2	19-0
20-64	55.5	53.6	51.9	54.4	54.3	54.1	53.0	64-20
65+	13.2	12.7	12.3	9.6	9.6	9.6	9.8	+65
Grand total	Jews and others						יהודים ואחרים	
0-19	28.7	30.0	31.4	32.3	32.5	32.6	34.1	19-0
20-64	55.7	54.7	53.8	56.4	56.3	56.2	54.6	64-20
65+	15.6	15.2	14.8	11.2	11.2	11.2	11.3	+65
Total	Thereof: Jews						מזה: יהודים	
0-19	29.0	30.4	31.7	32.6	32.7	32.9	34.2	19-0
20-64	55.3	54.3	53.2	56.0	55.8	55.7	54.2	64-20
65+	15.7	15.3	15.0	11.5	11.4	11.4	11.6	+65
Grand total	Arab population(2)						אוכלוסייה ערבית(2)	
0-19	39.7	44.8	48.8	49.4	49.8	50.2	50.7	19-0
20-64	54.7	50.1	46.5	46.9	46.5	46.1	46.2	64-20
65+	5.6	5.1	4.8	3.7	3.7	3.7	3.1	+65
Total	Moslems						מוסלמים	
0-19	41.0	46.6	50.8	51.5	52.0	52.5	52.7	19-0
20-64	54.0	48.9	45.0	45.3	44.8	44.4	44.7	64-20
65+	5.0	4.5	4.2	3.2	3.2	3.1	2.6	+65
Grand total	Christians - total						נוצרים - סך הכל	
0-19	29.0	29.9	30.7	33.1	33.2	33.2	35.5	19-0
20-64	57.9	57.2	56.7	57.7	57.6	57.6	57.0	64-20
65+	13.1	12.9	12.6	9.3	9.2	9.2	7.5	+65
Total	Thereof: Arab Christians						מזה: נוצרים ערבים	
0-19	30.2	31.3	32.5	35.1	35.2	35.3	37.8	19-0
20-64	58.4	57.4	56.4	56.5	56.4	56.3	55.5	64-20
65+	11.5	11.3	11.1	8.3	8.3	8.3	6.7	+65
Total	Druze						דרוזים	
0-19	33.2	35.6	37.7	41.4	41.6	41.9	46.1	19-0
20-64	59.5	57.4	55.5	54.2	53.9	53.7	50.0	64-20
65+	7.3	7.0	6.8	4.4	4.4	4.4	3.9	+65
Total	Religion unclassified						ללא סיווג דת	
0-19	23.9	24.4	27.3	28.2	28.4	28.8	32.0	19-0
20-64	62.3	62.4	60.9	65.0	64.9	64.6	63.9	64-20
65+	13.7	13.2	11.9	6.8	6.7	6.6	4.2	+65

(1) The population estimates for base year, end of 2000 do not include foreign workers, which amounted to 214,000 at the end of 2000 (including workers residing in Israel for less than a year).

(2) Total population and Arab population in the base year, do not include Lebanese (3,500 at the end of 2000).

(1) אומדני האוכלוסייה בשנת הבסיס, סוף 2000, אינם כוללים את העובדים הזרים, שמספרם הגיע לכ-214,000 נפש בסוף שנת 2000 (כולל עובדים השוהים בארץ פחות משנה).

(2) סך כל האוכלוסייה והאוכלוסייה הערבית בשנת הבסיס לא כוללים אוכלוסיית לבנונים שמנתה כ-3.5 אלף איש בסוף 2000.

3. Comparison of CBS Population Projections with UN Population Projections for Various Regions of the World⁶

3.1 Population Growth

Table 1: Comparison of Percentages of Average Annual Population Growth, in Medium Variant

Percentages

	CBS	UN			
Years	Israel	Total world	“More developed” regions ⁷	“Less developed” regions ⁸	Selected Middle Eastern countries (weighted average) ⁹
2001-2005	1.8	1.2	0.25	1.5	2.1
2006-2010	1.6	1.1	0.20	1.3	2.0
2011-2015	1.5	1.1	0.16	1.2	1.8
2016-2020	1.4	0.9	0.11	1.1	1.5
2021-2025	1.3	0.8	0.06	1.0	1.3

- The anticipated growth rate of the Israeli population according to the population projections of the Central Bureau of Statistics is considerably higher than the rate projected for regions defined by the United Nations as “more developed”. According to the medium variant of UN projections, the average growth rate for countries in “more developed” regions will be positive but negligible: 0.25% from 2001-2005, and 0.06% from 2021-2025. According to the CBS projections, the medium variant for anticipated

⁶ The UN data were taken from *World Population Prospects: The 2002 Revision*, Population Division, Department of Economic and Social Affairs, United Nations Secretariat, New York, 2003.

⁷ “More developed” regions include Europe, North America, Australia, New Zealand, and Japan.

⁸ “Less developed” regions include Africa, Asia (excluding Japan), Latin America, the Caribbean Islands, Melanesia, Micronesia, and Polynesia.

⁹ “Selected Middle Eastern Countries” includes, Jordan, Egypt, Syria, and Lebanon.

population growth rate in Israel is 1.8% between 2001 and 2005, and 1.3% between 2021 and 2025.

- The anticipated growth rate for the Israeli population according to the CBS projections is similar, albeit somewhat higher than the rate projected for regions defined by the UN as “less developed” during the entire projection period.
- The population growth rate in Israel is expected to be lower than the UN projection for “selected Middle Eastern countries”. During the last period (2021-2025), however, the average annual growth rates for Israel and the other Middle Eastern countries are expected to be equal (1.3%).

3.2 Percentage of Children (aged 0-14) and Percentage of Elderly Persons (aged 65 and over) in the Total Population

Table 2: Percentages of the Population of Elderly Persons (aged 65 and over), Comparative Data – Medium Variant

	CBS	UN			
End of Year	Israel	Total world	“More developed” regions	“Less developed” regions	Selected Middle Eastern countries (weighted average)
2000	10	7	14	5	4
2005	10	7	15	6	4
2010	10	8	16	6	5
2015	11	8	17	6	5
2020	12	9	19	8	6
2025	13	11	21	9	7

Table 3: Percentages of Children (Aged 0-14), Comparative Data – Medium Variant

End of Year	CBS	UN			
	Israel	Total world	“More developed” regions	“Less developed” regions	Selected Middle Eastern countries (weighted average)
2000	29	30	18	33	37
2005	28	28	17	31	34
2010	28	27	16	29	33
2015	27	26	16	28	32
2020	27	25	16	27	30
2025	26	24	16	26	27

- The percentage of children aged 0-14 in Israel is similar to the percentage in regions defined as “less developed” (albeit somewhat lower). However, the percentage of elderly persons in Israel is substantially higher than in those regions. This phenomenon may be attributed to the relatively high fertility rate in Israel, which is similar to that in “less developed” regions, whereas the high life expectancy in Israel is similar to that of “more developed” regions.
- Comparison of the percentages of children and elderly persons in Israel with the percentages of those populations in the total world projection indicates that those percentages are similar throughout the entire projection period, although the percentage of persons aged 65 and over in Israel is somewhat higher than the total projection for the world.
- The Israeli population is characterized by a higher proportion of children than in “more developed” regions. However, the share of the elderly population in Israel is lower than in those areas. If the projections presented here materialize, the gap between Israel and “more developed” areas in the population of elderly persons is expected to increase substantially.

3.3 Median Age

Table 4: Comparisons of Median Age according to the Medium Variant

End of Year	CBS	UN			
	Israel	Total World	“More developed” regions	“Less developed” regions	Selected Middle Eastern countries (weighted average)
2000	27.7	26.4	37.3	24.1	21.0
2005	28.5	27.4	38.7	25.1	22.4
2010	29.2	28.4	40.0	26.3	23.7
2015	29.9	29.5	41.2	27.5	25.2
2020	30.5	30.7	42.3	28.8	26.7
2025	31.0	31.9	43.3	30.0	28.2

- According to the CBS projections, the median age in Israel is expected to remain somewhat higher than the UN projections for the median age in “less developed” regions.
- The median age in Israel is not substantially higher than the overall median age for the world. However, as of 2020, the median age for the world is expected to be higher than that of Israel.
- However, the median age is expected to remain substantially lower than the median age in regions defined by the UN as “more developed”, where the median age is expected to rise from 37.3 to 43.3 between 2001 and 2025.
- The anticipated median age in Israel according to the CBS projection is substantially higher than in “selected Middle Eastern countries”, although this gap is expected to diminish toward the end of the projection period, between 2021 and 2025.

4. Definitions and Projection Assumptions

4.1 Definitions and Explanations

Population Group and Religion

As of the 1995 Census, due to the arrival of many immigrants not listed as Jews in the Ministry of the Interior, the definitions of religion and population group were altered. Christians were divided into two groups – Arab Christians and Other Christians, according to several criteria: locality of residence, nationality, and country of birth. An “Arab Christian” is defined as any Christian living in an Arab locality or anyone who lives in another locality but is listed as having an Arab nationality in the Ministry of the Interior. If these details are missing, whoever was born in an Arab country or in Israel to a father born in an Arab country, was included in the group of Arab Christians. The rest of the Christians are defined as “Other Christians” (non-Arabs). Another group presented separately since 1995 is the group of persons who are not classified by religion in the Ministry of the Interior. The persons in this group are usually family members of Jewish immigrants, as is the case with most “Other Christians”.

As a result, the population of Israel is classified by religion according to six groups, as follows: Jews, Moslems, Arab Christians, Other Christians, Druze, and Religion Unclassified.

In addition to the classification by religion, there is also a breakdown by two population groups: *Jews and Others*, which includes Jews, Other Christians (not Arabs), and those unclassified by religion; and *the Arab population*, which includes Moslems, Arab Christians and Druze.

Population Growth

The change in the population size deriving from birth, death, or migration during a given period. This change can be positive (population increase) or negative (population decline).

Natural Increase

The difference between births and deaths during a given period. Natural increase is one of the components that influences population growth.

Migration Balance

The difference between the number of people entering a specific place (in our case Israel), and the number of people departing from that place during a given period. The migration balance is one of the components that affect population growth.

Age

The number of years a person completed on a given date.

Dependency Ratio

The ratio of persons aged 0-19 and aged 65+ (considered “dependent” populations) to persons of working age – 20-64 (considered “supporting” populations).

Total Fertility Rate

The average number of children a woman is expected to bear during her lifetime. The rate is based on the assumption that child-bearing among all women in a given generation will occur between the ages of 15 and 49, according to the specific birth rates of the women in the population in a given year (synthetic cohort).

Replacement Level

Given constant mortality and fertility, this is the level of fertility required for the population to replace itself without growing or diminishing (zero population growth). In populations with a low mortality level, the replacement level is equal to a total fertility rate of 2.1.

Baby Boom

A drastic rise in the fertility rate, which occurred at the end of the 1940s and beginning of the 1950s after the end of World War II. This phenomenon was evident particularly in the Western world.

4.2 Base Populations and Projection Range

The population projections were calculated separately for seven base populations:

- (a) Jews
- (b) Moslems living in the Southern District (almost all of them are “Bedouins”)
- (c) Other Moslems (excluding Moslems living in the Southern District)
- (d) Arab Christians
- (e) Other Christians
- (f) Druze
- (g) Religion Unclassified

Projections for the base populations are presented separately in the tables, except for projections related to the two Moslem groups, which are presented in the tables as one group – Total Moslems.

Additionally, projection results were presented for broader population groups, according to the following breakdown:

- a. Population of Israel, comprising all seven of the base populations.
- b. Jews and Others, comprising Jews, Other Christians, and Religion Unclassified.
- c. Arab Population, comprising Moslems, Arab Christians, and Druze.
- d. Total Christian Population, comprising Arab Christians and non-Arab Christians.

For each of the base populations, assumptions about fertility, life expectancy, and migration were constructed.

Based on these assumptions, a 25-year projection was calculated from the end of 2000 (the base year) to the end of 2025, at intervals of five years. Three variants were calculated – high, medium, and low. Each variant respectively reflects the size of the population obtained in the calculations.

4.3 Projection Assumptions

Combined Assumptions (Table 8)

This publication presents three population projections, based on three combinations of assumptions with regard to growth components: a high variant, a medium variant, and a low variant.

- **In the high variant**, fertility was assumed to increase from 2.9 to 3.1 births per woman on the average over the entire projection period; immigration was assumed to be high (699 thousand immigrants by 2025), and emigration low (315 thousand émigrés by 2025).
- **In the medium variant**, the assumptions were: a moderate decline in fertility (from 2.9 to 2.7 births per woman on the average), intermediate level of immigration (543 thousand immigrants by 2025), and higher emigration than in the previous variant (339 thousand “émigrés” by 2025).
- **In the low variant**, fertility was assumed to decrease sharply (from 2.9 to 2.2 births per woman on the average); immigration was assumed to be low (459.5 thousand immigrants by the end of the projection period), and emigration high (372 “émigrés” by the end of the projection period).

In all of the variants, assumptions were identical for life expectancy, as specified later in the section on Mortality.

Assumptions about Fertility Level (Table 9)

Israel's fertility level is higher than that of other developed countries. In Israel, there are significant differences in fertility levels among the different population groups and according to religion.

In this projection, separate assumptions were made about fertility levels for each of the religious groups, as was the practice in previous projections conducted by the CBS. In addition, separate assumptions were made about fertility levels for Moslems residing in the Southern District (most of whom are Bedouins), which are characterized by especially high fertility rates, and for “Other Moslems”.

Jews

After three decades of almost continuous decline at varying rates, fertility stabilized among the Jewish population during the 1980s, at 2.8 births per woman on the average. In the 1990s, the total fertility rate declined to 2.6 births per woman on the average, due to the effect of women who immigrated from the (former) USSR, whose fertility rates are typically low. This rate is the average of the high fertility level among the ultra-Orthodox population and the declining fertility level among the secular population.

As for assumptions about the fertility levels of the Jewish population, the rate of 2.6 births per woman was considered the high limit, while the medium and low variants were based on the premise that fertility levels would continue to decline.

- **High assumption:** Fertility will remain constant over the entire projection period, at a level of 2.6 births per woman on the average, as in the 1990s.
- **Medium assumption:** Based on the continued historical trend of declining fertility, the fertility level will drop to 2.35 births per woman on the average.
- **Low assumption:** Within 25 years, the fertility level of the Jewish population will decline to the replacement level (2.1 births per woman on the average).

Moslems – Not Including Moslems from the Southern District

The fertility rate of Moslem women (not including Moslems from the Southern District) between 1996 and 2000 was 4.2 births per woman on the average. The projection assumptions refer to fertility data in recent years (1996-2000) as the high limit, from which estimates could only be reduced.

- **High assumption:** Fertility will remain constant over the entire projection period, at the level observed in 1996-2000 (4.2 births per woman on the average).
- **Medium assumption:** After a period of stability, fertility rates will gradually drop again to a level of 3.2 births per woman on the average between 2001 and 2025.
- **Low assumption:** Fertility will drop, consistent with the process in the countries bordering Israel (in those countries there was a sharp decline in fertility levels, whereas the fertility level of Moslem women in Israel has remained stable since the mid-1980s). According to this variant, the fertility level of Moslem women (not including those in the Southern District) will decline to 2.1 births per woman on the average between 2021 and 2025.

Moslems – Southern District

Contrary to previous projections, this projection was based on separate assumptions for fertility rates among Moslems in the Southern District (who are almost all Bedouins), because their fertility and mortality patterns distinguish them from other Moslems in Israel.

In 2001-2002, the average number of births per woman among Moslems living in the Southern District was 9.1, although there has been an overall decline in fertility among that population over the last decade. The projection assumptions for the next 20 years refer to a level of 9.0 births per woman on the average as the upper limit, although the possibility that there will be a substantial decline in this fertility level cannot be ruled out.

- **High assumption:** Fertility rate will remain constant over the entire projection period, at a level slightly lower than the average fertility rates in 2001-2002 (9.0 births per woman on the average).
- **Medium assumption:** Fertility will drop at a constant rate every five years, to a level of 7.0 per woman on the average in 2021-2025.
- **Low assumption:** Among the population of Moslems living in the Southern District, there will be a process similar to that which occurred among the Moslem population in Israel from the beginning to the 1960s to the beginning of the 1980s. During that period, fertility levels among the overall Moslem population dropped from 9.2 births per woman on the average to 5.5 births per woman on the average. That is, the average number of births per woman among the population of Moslems in the Southern District will decline from 9.0 to 5.0 over a period of 25 years.

Christian Arabs

The fertility level of Christian Arab women is slightly lower than that of Jewish women (2.5 births on the average per Christian Arab woman, compared with 2.6 births per Jewish woman). Therefore, it was decided to make similar assumptions regarding fertility rates for both of those populations.

- **High assumption:** Fertility will remain constant over the entire projection period (2.5 births per woman), as in 1990.
- **Medium assumption:** Based on a continuation of the historical trend toward declining fertility, the rate will drop to 2.3 births per woman.
- **Low assumption:** Fertility will decline to the replacement level (2.1 births per woman on the average) within 25 years.

Other Christians (non-Arab)

This small population group consists primarily of female immigrants from the (former) USSR who arrived in the 1990s and have a low fertility level, as well as a small number of Ethiopian immigrants with a high fertility level. The fertility level among the population of Other Christians is close to the replacement level, i.e., 2.1 births per woman on the average. Because the chance that the fertility level will drop below that rate is slim, it was decided to assume that fertility will remain constant (2.1) for all variants and for all periods.

Druze

Until the mid-1980s, the fertility level of Druze women was slightly lower than that of Moslem women. Since that period, larger gaps have developed between the two populations. The fertility level of Druze women continued to decline to 3.0 births per woman on the average in 2000, whereas the fertility level of Moslem remained stable (4.7).

- **High assumption:** The fertility level will stabilize at 2.9 births per women – slightly lower than the level at the end of 2000.
- **Medium assumption:** Based on a continuation of the downward trend in fertility that has characterized this population to date. According to this variant, fertility will continue to decline until it reaches 2.5 births per woman on the average (similar to the fertility level of Jewish women today).
- **Low assumption:** Fertility will continue to decline until it reaches the replacement level of 2.1 births per woman on the average.

Not Classified by Religion

This population group consists primarily of immigrants who arrived in Israel in the 1990s, and whose religion was not recorded at the Ministry of the Interior. The fertility level of this population is particularly low, and has been about 1.7 births per woman since the mid-1990s.

- **High assumption:** According to this assumption, the immigrant women will adopt fertility patterns of the Jewish population. Consequently, fertility will rise to the replacement level (2.1 births per woman on the average) between 2021 and 2025.
- **Medium and low assumptions:** Fertility will remain at the same level as it is today – 1.7 births per woman on the average.

Assumptions about Life Expectancy (Table 10)

For all variants, one assumption about life expectancy at birth was made. To formulate assumptions about life expectancy, historical trends of changes in mortality levels in Israel and abroad were analyzed. The data reveal a constant rise in life expectancy in Israel, accompanied by a persistent gap between Jews and Others on the one hand and Arabs on the other (with an advantage for Jews and Others), as well as between women and men (with an advantage for women).

Based on these trends, it was assumed that life expectancy would continue to rise (although at a continuously declining rate), and the gaps by religion and sex will remain constant.

Jews and Others

For all of the religions in the “Jews and Others” population groups - Jews, Other Christians (non-Arab), and Not Classified by Religion - the same assumptions were formulated. In recent years, there has been a slight but constant rise in life expectancy among that population. Between 1996 and 2000, life expectancy was 76.7 years for males and 80.7 years for females in this group. The projection assumption is that the gradual rise in life expectancy will continue in the future, and will increase from 77.6 in 2001-2005 to 80.2 years in 2021-2025 for males, compared with 81.6 in 2001-2005 to 84.2 years for women in 2021-2025.

Arabs

Identical life expectancy assumptions were made for Moslems (not including those living in the Southern District), Christian Arabs, and Druze who comprise the Arab population.

Between 1996 and 2000, life expectancy was 74.7 years for males and 77.4 years for women in this group.

The projection assumption, like the assumption for “Jews and others” is that the gradual rise in life expectancy will continue, from 75.6 for males in 2001-2005 to 78.3 years in 2021-2025, compared with 78.2 in 2001-2005 to 80.9 in 2021-2025 for women.

Moslems Living in the Southern District

In this projection, besides assumptions about life expectancy for Jews and Others and for the overall Arab population, separate assumptions were made for the population of Moslems residing in the Southern District (almost all of whom are Bedouins). The lower life expectancy for this population compared with the rest of the Arabs can be attributed to the relatively high mortality rate, particularly among infants.

The life expectancy of “Moslems residing in the Southern District” between 1996 and 2000 was 70.2 years for males and 72.7 years for women. Thus, the gap in life expectancy between this population and the “rest of the Arabs” was maintained, also for assumptions regarding life expectancy up to 2025, which was expected to increase from 71.2 years between 2001 and 2005 to 73.9 years between 2021 and 2025. During the same period, women’s life expectancy was expected to rise from 73.6 to 76.3.

Migration Balance (Immigration and Emigration) (Table 13)

Different assumptions about immigration and emigration were used for each of the religions in the population group “Jews and Others”. For the Arab population, whose historical migration balance data are extremely low, the assumption was zero migration balance.

The migration balances in the high and medium variants are positive for the entire projection period. However, in the low variant, a negative migration balance is expected as of 2016-2020, which can be attributed to the negative migration balance in the Jewish population (among “Other Christians” and “Not Classified by Religion” the positive migration balance assumption was also used in the low variant.

Immigration (Tables 11 and 13)

In all of the variants, it was assumed that there would be a gradual decline in the number of immigrants to Israel. This assumption is based on immigration figures from the end of the 1990s and the beginning of the 21st century. These data reveal a clear and significant downward trend in immigration from the (former) USSR, which was the absolute majority of the immigrant population throughout the 1990s. This trend can be attributed to the substantial decline in the supply of potential immigrants from those countries. Therefore, in all of the variants it was assumed that the number of immigrants from the (former) USSR would decline, albeit at different rates according to the variants.

The flow of immigrants from other countries (mainly Europe and America) remained more or less stable throughout this period. In the high variant, it was assumed that the number

of immigrants from “other countries” would remain stable throughout the projection period, i.e., about 10 thousand per year, continuing the trend of stability that has persisted over at least the last 15 years. In the medium and low variants, it was assumed that there would be a gradual decline in the number of immigrants from “other countries”.

The calculation of assumptions regarding immigration also included the component of immigrant citizens¹⁰, because their number has become more substantial than in the past (about 3 thousand per year). For all of the variants, it was assumed that this level would remain constant throughout the projection period.

In addition to these components, the immigration also includes persons who arrived in Israel under the “family unification” law. This component has become relevant among the population of “Jews and Others” following the influx of immigrants from the (former) USSR and from Ethiopia in the 1990s. After these immigrants arrived, many of their non-Jewish family members arrived. At the end of the 1990s, the number of immigrants who arrived under this law amounted to about 2.5-3.0 thousand per year. For all of the variants, the assumption was that the number of persons who enter Israel under the family unification law would decline, albeit at different rates for each variant, as a result of the anticipated continuation of the decline in immigration from the (former) USSR.

In each of the variants, it was assumed that throughout the projection period the composition of immigrants by age and sex would remain constant, as in 1996-2000.

Data from recent years reveal a decline in the percentage of Jews among the immigrants to Israel. Between 1990 and 1995, Jews were 94% of the immigrant population, whereas between 1996 and 2000, the percentage of Jewish immigrants declined significantly to 65% (those remaining immigrants were either Christian or not classified by religion). This decline can be attributed to a growing percentage of immigrants who arrived in Israel under the Law of Return or with Jewish spouses. Most of these immigrants were from the (former) USSR, although a few were from Ethiopia.

This trend notwithstanding, the projection assumption for all of the variants was that the percentage of Jews among the immigrants would rise, because it was expected that the number of immigrants from the (former) USSR would drop.

¹⁰ Immigrant citizen – a person who was born to an Israeli citizen during a stay abroad and entered Israel with the intention of settling in the country.

Assumptions regarding the net balance of Israelis staying abroad for extended periods (“emigration”) (Tables 12 and 13)

The projection regarding the number of “émigrés” in the future was calculated on the basis of assumptions about the expected emigration rate, taking into consideration the projected population size. Assumptions about “emigration” rates are based on past trends, and take into account the differences between religions.

Assumptions about emigration rates were formulated for three religions: Jews, persons unclassified by religion, and non-Arab Christians.

For all of the variants (high, medium, and low), it was assumed that emigration from Israel would decline, albeit at varying rates. Thus, in the high variant it was assumed that emigration rates would be lowest.

In all variants for each of the three religions, it was assumed that the composition of émigrés by age and sex would remain constant throughout the projection period (as it was between 1996 and 2000, on the average).

Jews

Among this population, the average rate of emigration in recent years (1996-2000) was relatively stable, and ranged from 2.0 to 2.4 émigrés per thousand residents.

In all variants, the assumptions regarding emigration rates during the first projection period (2001-2005) are within the range of the above-mentioned rates. Regarding the subsequent projection periods (2006-2025), it was assumed that the number of émigrés would decline, albeit at varying different rates. Thus, in the high variant it was assumed that emigration rates would be lowest.

The assumption that emigration rates will drop is based on the expectation that there will be a decline in the proportion of new immigrants, who show a much greater tendency to emigrate than do veteran Israelis.

Other Christians (Non-Arabs)

The assumptions regarding emigration of non-Arab Christians were based on the number of émigrés among that population in recent years (1996-2000), where the number of émigrés is expected to decline gradually due to the projected drop in the rate of immigration among “Other Christians”.

Not Classified by Religion

The average rate of emigration among that population was high between 1996 and 2000 (over 10 émigrés per thousand persons). It should be emphasized that this population consists mainly of immigrants from the 1990s and after, and past experience has shown that the longer the period of residence in Israel, the lower the rates of emigration.

Therefore, for all of the variants the assumption was that there would be a gradual decline in emigration, and that by the end of the projection period the emigration rates among the population not classified by religion would be close to those of the Jewish population.

SUMMARY TABLE B.- MAIN ASSUMPTIONS FOR THREE POPULATION PROJECTION VARIANTS, BY RELIGION

לוח סיכום ב.- תמיצית ההנחות לשלוש החלופות של תחזית האוכלוסייה, לפי דת

Population	Variant	תוחלת חייה (שנים) Life expectancy (years)			מאזן הגירה (אלפים) Migration Balance (thousands)			פרייה כולל (לידות לאישה) Total fertility (births per woman)			חלופה	אוכלוסייה
		תוחלת אחרון (2025-2021) Last five years	תוחלת ראשון (2005-2001) First five years	מין Sex	תוחלת אחרון (2025-2021) Last five years	תוחלת ראשון (2005-2001) First five years	תגמה Trend	תוחלת אחרון (2025-2021) Last five years	תוחלת ראשון (2005-2001) First five years	תגמה Trend		
Jews	High	80.2	77.6	Males זכרים	35	51	יורדת Decrease	2.6	2.6	קבועה Constant	גבוהה	יהודים
	Medium	84.2	81.6	Females נקבות	3	38	יורדת Decrease	2.4	2.6	יורדת Decrease	בינונית	
	Low	84.2	81.6	Females נקבות	-12	21	יורדת Decrease	2.1	2.6	יורדת Decrease	נמוכה	
Other christians	High	80.2	77.6	Males זכרים	5.4	4.8	עולה Increase	2.1	2.1	קבועה Constant	גבוהה	נוצרים אחרים
	Medium	84.2	81.6	Females נקבות	2.4	4.8	יורדת Decrease	2.1	2.1	קבועה Constant	בינונית	
	Low	84.2	77.6	Females נקבות	2.4	4.8	יורדת Decrease	2.1	2.1	קבועה Constant	נמוכה	
Religion unclassified	High	80.2	77.6	Males זכרים	28	53	יורדת Decrease	2.1	1.7	עולה Increase	גבוהה	ללא סיווג דת
	Medium	84.2	81.6	Females נקבות	11	45	יורדת Decrease	1.7	1.7	קבועה Constant	בינונית	
	Low	84.2	81.6	Females נקבות	6.5	39	יורדת Decrease	1.7	1.7	קבועה Constant	נמוכה	
Moslems - total(1)	High	78.3	75.6	Males זכרים	-	-	-	5.0	4.7	עולה Increase	גבוהה	מוסלמים - סך הכל (1)
	Medium	80.9	78.2	Females נקבות	-	-	-	3.8	4.7	יורדת Decrease	בינונית	
	Low	80.9	78.2	Females נקבות	-	-	-	2.6	4.7	יורדת Decrease	נמוכה	
Moslems (excl. Moslems from Southern District	High	78.3	75.6	Males זכרים	-	-	-	4.2	4.2	קבועה Constant	גבוהה	מוסלמים (לא כולל מוסלמים ממחוז הדרום)
	Medium	80.9	78.2	Females נקבות	-	-	-	3.2	4.2	יורדת Decrease	בינונית	
	Low	73.9	71.2	Males זכרים	-	-	-	2.1	4.2	יורדת Decrease	נמוכה	
Moslems from Southern District	High	73.9	71.2	Males זכרים	-	-	-	9.0	9.0	קבועה Constant	גבוהה	מוסלמים ממחוז הדרום
	Medium	76.3	73.6	Females נקבות	-	-	-	7.0	9.0	יורדת Decrease	בינונית	
	Low	76.3	73.6	Females נקבות	-	-	-	5.0	9.0	יורדת Decrease	נמוכה	
Druze	High	78.3	75.6	Males זכרים	-	-	-	2.9	2.9	קבועה Constant	גבוהה	דרוזים
	Medium	80.9	78.2	Females נקבות	-	-	-	2.5	2.9	יורדת Decrease	בינונית	
	Low	80.9	78.2	Females נקבות	-	-	-	2.1	2.9	יורדת Decrease	נמוכה	
Arab Christians	High	78.3	75.6	Males זכרים	-	-	-	2.5	2.5	קבועה Constant	גבוהה	נוצרים ערבים
	Medium	80.9	78.2	Females נקבות	-	-	-	2.3	2.5	יורדת Decrease	בינונית	
	Low	80.9	78.2	Females נקבות	-	-	-	2.1	2.5	יורדת Decrease	נמוכה	
Total population (weighted average for fertility and life expectancy assumptions)	High	79.8	77.2	Males זכרים	68.4	108.8	יורדת Decrease	3.1	2.9	עולה Increase	גבוהה	סך כל האוכלוסייה (ממוצע משוקלל להנחות ממוצע משוקלל לחייה) פרייה ותוחלת החיים
	Medium	83.8	81.2	Females נקבות	16.4	87.8	יורדת Decrease	2.7	2.9	יורדת Decrease	בינונית	
	Low	83.8	81.2	Females נקבות	-3.1	64.8	יורדת Decrease	2.2	2.9	יורדת Decrease	נמוכה	

(1) Weighted average for Moslems from Southern District and "other Moslems".

(1) ממוצע משוקלל של מוסלמים ממחוז הדרום ו"שאר מוסלמים".

5. METHODOLOGY

The Population Projection Matrix Model¹¹, which applies the method of components within demographic cohorts, was used to prepare population projections presented here.

The projections were calculated separately for men and women in each of the seven base populations, and for five-year periods in the 25-year range.

To calculate survival rates by sex for each five-year period, we used the United Nations MORTPAK program. The program is designed for calculation of demographic indices, with special emphasis on mortality. Calculation of future survival rates was based on empirical mortality tables constructed on the basis of the average current mortality rates in 1996-2000.

Methodology Assumptions

- Fertility, mortality, and immigration balance will remain constant throughout the entire five-year period.
- The distribution of immigrants will be uniform throughout the five-year period. That is, to calculate population increments due to immigration, about half of the immigrants are added to the population at the beginning of each five-year period, so that they are part of the fertility and mortality processes. The other half of the immigrant population is added at the end of the five-year period.
- Population projections were calculated separately for each religion. Thus, the method essentially ignores potential changes in religious affiliation of individuals in the population.
- The distribution of specific fertility rates (fx) will remain constant throughout the projection period, as it was between 1996 and 2000 on the average. This assumption means that when fertility rates change among a given religious population, parallel calculations of the change are made for each age group, based on the same ratio.
- There will be a constant distribution of immigrants and émigrés by sex and age throughout the projection period, equivalent to the average rate between 1996 and 2000.

11 US bureau of the Census, *The Methods and Materials of Demography*, Henry S. Shryock, Jacob S. Siegel, and Associates, Volume 2, pp. 719-720. US Government Printing Office, Washington, D.C. 1973.