

# Arab Population In the West Bank & Gaza *The Million and a half Person Gap*

## FULL STUDY & PRESENTATION

**The 1997 Palestinian Authority  
Census & Projection**  
*2004 Population = 3.83 Million*

*Presented at*

**Update of 1997 PA Projection  
with Official Data**  
*2004 Population = 3.06 Million*

***The American Enterprise Institute\****  
*Washington, DC*

**Residents Only Update from 1996**  
*2004 Population = 2.73 Million*

*January 10, 2005*

**Update of Israel Projection from 1990**  
*2004 Population = 2.41 Million*

### USA Team

- Bennett Zimmerman,  
*(Project Leader)*
- Roberta Seid, Ph.D.
- Michael Wise, Ph.D.

Bennett Zimmerman  
& Roberta Seid, Ph.D.  
Copyright 2004

*This document may not be forwarded, shared, or copied  
without the expressed written consent of its authors.*

### Israel Team

- Yoram Ettinger  
*(Israel Team Leader)*
- Brig. Gen (Ret.) David Shahaf
- Prof. Ezra Sohar
- Dr. David Passig
- Avraham Shvout

*\*The information presented here represents the views of its authors only. The American Enterprise Institute only hosted this presentation and in no way supports or rejects the views contained in this presentation.*

**Arab Population**  
**In the West Bank & Gaza**  
*The Million and a half Person Gap*

**Table of Contents**

- 1) Executive Summary
- 2) The Population Scenarios
- 3) Explaining the Differences
- 4) Corroboration of Population Scenarios
- 5) Regional & Worldwide Comparisons
- 6) Final Count *with* Implications & Conclusions
- 7) The Research Team
- 8) Observations & A Final Word
- 9) Appendices

**Arab Population**  
**In the West Bank & Gaza**  
*The Million and a half Person Gap*

**1. Executive Summary**

# Arab Population In the West Bank & Gaza *The Million and a half Person Gap*

## Background

Academicians and policy makers routinely accept the Palestinian Authority's (PA) reported population figures for the West Bank and Gaza. These figures are based on the 1997 PA Census and subsequent projections published by the Palestinian Central Bureau of Statistics (PCBS) which contain assumptions of high birth rates, low death rates and heavy migration that would place Palestinian population growth rates at 4 – 5% per year, well above any other society in the world. This anomaly gives reason to examine whether these figures are accurate.

The PA reports that, as of mid-year 2004, the Palestinian Arab population in the West Bank and Gaza was 3.8 million. This count has been combined with the 1.3 million Arabs in pre-1967 Israel to suggest that the Arab population between the Jordan River and the Mediterranean Sea is approaching parity with the Jewish population of Israel. Furthermore, the PA projection applies assumptions about population growth that lead to a scenario in which Jews will rapidly become a minority in the land.

After Israel's Civil Administration ended in 1994 through 1995, the PA assumed responsibility for counting and reporting the population of the West Bank and Gaza. Well-meaning researchers and demographers have simply *plugged* the PA data into their own reports without questioning the figures or the assumptions behind them.

We formed a team of Israeli and American researchers (the Team) to formally examine the data and assumptions of the 1997 PA Census and its projections. The Team exhaustively studied data from Palestinian, Israeli and third-party sources to determine the most accurate figure for Palestinian Arab population in the West Bank and Gaza. Hopefully, this study will be the first of many audits on this critical issue.

# Arab Population In the West Bank & Gaza *The Million and a half Person Gap*

## Methodology & Sources

The formula for measuring population is straightforward:

*Base Population*

*plus Births*

*less Deaths*

*plus Immigration*

*less Emigration*

*equals Current Population Base*

No other factors affect growth. The measurement of any population requires accurate recording and verification of each of these factors.

We investigated the often cited 1997 PA Projection, factor by factor, and compared it to actual data first from Palestinian sources and later from Israeli sources. 3<sup>rd</sup> Party data was used for comparative purposes.

### Our primary sources of Palestinian Arab data were:

- Palestinian Central Bureau of Statistics (PCBS)
- Palestinian Ministry of Health (PA MOH)
- Palestinian Central Election Commission (CEC)

### Our primary sources of Israeli data were:

- Israel Central Bureau of Statistics (ICBS)
- Israel Civil Administration for West Bank and Gaza
- Israel Border Police and Israel Ministry of Interior

### •Our primary sources of 3<sup>rd</sup> Party data were:

- UN Population Division & United Nations Relief Works Agency (UNRWA)
- CIA World Factbook
- 1993 World Bank Report: “*Developing the Occupied Territories: An Investment in Peace.*”

# Arab Population In the West Bank & Gaza *The Million and a half Person Gap*

## New Findings

The Team found that the PA's growth assumptions in the West Bank and Gaza did not occur for even one year during the period from 1997 through 2004. Further, PA sources also acknowledged a current 2.4% natural growth rate in 2003 (1) which contradicts the growth assumptions in the 1997 PA projection.

By applying the PA's erroneous assumptions over many years, the error in population forecasting compounds exponentially. These errors have created a gap of almost 1.5 million people between what is commonly cited for Palestinian population in the West Bank and Gaza and what our data shows to be the actual population today.

In the Team's research we found:

- Less Births: The number of births reported by the PA Ministry of Health were substantially less than the figures originally forecast by the PA in 1997. *More than anything else in our study*, the publication of birth statistics each year by the PA Ministry of Health contradicts the accuracy of the 1997 PA Projection.
- Lower Fertility Rates: Trends in fertility and birth rates among Palestinian women showed a dramatic decline from the mid-90s through 2003 in line with other Arab societies throughout the Middle East.
- Net Emigration: Instead of a large immigration into the West Bank and Gaza as originally forecast in 1997 by the PA, the territories experienced a steady and consistent emigration of residents.
- Double-Count: Jerusalem's Arabs are counted by the PA in their population reports even though this group is also included in Israel's Population Registry. Academics and others often forget to remove this double count when calculating population totals for Israel, the West Bank, and Gaza.
- Inclusion of Non-Residents: Palestinians *living abroad* (those with ID cards who have remained abroad for over one year) are systematically counted by the PA in its population surveys.

# Arab Population In the West Bank & Gaza *The Million and a half Person Gap*

## Base Case: The Original PA 1997 Census & Projection

In 1997, the PA published a population projection with assumed rates for births, deaths and migration into the PA territories. These rates assumed growth of between 4 and 5% per annum in the PA territories. The result was a projection of 3.8 million people for mid-year 2004.

## *New Population Scenarios*

Using Palestinian, Israeli and other data the Team developed three different scenarios to calculate the most accurate Arab population in the West Bank and Gaza at the beginning of 2004:

### Scenario #1: Update of PA 1997 Census & Projection with Official Data: Result 3.06 million.

Our primary goal was to take the PA Census figures as a base and replace the PA *projections* with *actual data* from PA sources wherever possible. Using *actual* births and deaths recorded by the PA Ministry of Health each year from 1998 through 2003 and actual entry and exit data at border crossings for those same years, we calculated a population of 3.06 million for the West Bank and Gaza at the beginning of 2004.

Scenario #1 accepts PA data at face value and demonstrates that the the PA projections did not occur according to its own published data. For those who accept PA published figures, Scenario #1 represents the *highest possible estimate* of population in the West Bank and Gaza including residents *living abroad*.

This scenario indicates that the Arab population in the West Bank and Gaza is 772 thousand less than the figure projected by the PA.

# Arab Population In the West Bank & Gaza *The Million and a half Person Gap*

## **Scenario #2: Residents Only Update from 1996: Result 2.73 million.**

With the 1997 PA Census, the PA reported a base population that was substantially higher than previous Israeli and Palestinian estimates. Significantly, the PA included many Palestinians *living abroad* in their population count, even if these individuals had been away for many years. [See Appendix A]

Scenario #2 determines a *Residents Only* Base Population between the *highest* Israeli estimate and below the *lowest* Palestinian estimate for *residents* at the beginning of 1996. The average of 2.124 million was consistent with data issued by the PA for Parliamentary Elections in 1996 and recent data issued in October 2004 for Municipal and Presidential elections.

Except for a new *Residents Only* population base, the methodology for Scenario #2 is the same as for Scenario #1. That is, we used PA Ministry of Health Births & Deaths as given for each year, 1996 – 2003, and Actual Entries & Exits at border crossings for the same period to arrive at a total of 2.73 million for the West Bank and Gaza in 2004.

This scenario indicates that the Arab population in the West Bank and Gaza is **1.1 million** less than the figure projected by the PA.

## **Scenario #3: Update of Israel Projection from 1990: Result 2.41 million.**

Israel's population estimates for the territories from 1967 until the early 1990s were corroborated with the issuance of ID cards for adults. School and immunization records corresponded to the number of births recorded each year. Most importantly, the PA's October 2004 voting reports indicated that Israel's population age breakdowns from the early 1990's were among the most accurate projections of adults resident in the West Bank and Gaza today. Finally, given a pattern of *retroactive* restatement of birth figures by PA agencies, the Team thought it necessary to fully consider the birthrates observed and corroborated by Israel during its administration of the West Bank and Gaza.

Scenario #3 updates Israel's 1990 Projection using Israel's recorded birth data from the early 1990s and then aligns Palestinian birth data to be consistent with Israeli data, adds actual border data, and computes a population of 2.41 million at the beginning of 2004.

This scenario indicates that the Arab population in the West Bank and Gaza is **1.4 million** less than the figure projected by the PA.

## **Verification with Spectrum Demographic Software**

The Team used Spectrum Demographic Software against all three population scenarios to check that there were no errors in our mathematical calculations. All three scenarios were almost exact matches to the same data run with Spectrum.

# Arab Population In the West Bank & Gaza *The Million and a half Person Gap*

## Corroboration of Population Scenarios

### October 2004 PA Central Election Commission Report

The CEC press release of October 14, 2004 reported that nearly one million voters out of 1.5 million eligible voters (adults 18 and above) were registered for upcoming municipal elections. The press release revealed that of 1.5 million eligible voters, fully 200 thousand, or 13% of the total, were adult Palestinians *living abroad*. The remainder, or 1.3 million, were the number of adults living in the West Bank and Gaza.

The Team evaluated various population age breakdowns to determine if the “population bulge” measured in earlier years did indeed come of age in 2004. In other words, the number of 18 year-olds in 2004 should approximate the number of 10 year-olds counted eight years earlier in 1996 with adjustments made for deaths and migration.

The October 2004 Voting Report invalidated the original 1997 PA Projection, confirmed that the 1997 Census Base included Palestinians *living abroad* and demonstrated that Scenarios #2 and #3 are the only possible estimates compatible with current voter rolls.

### Israel Central Bureau of Statistics Population Projections (1984 – 2002)

The ICBS developed five possible growth projections for the West Bank and Gaza from 1984 - 2002. We tested all our population scenarios against these prior ICBS projections. The results were:

- The original PA Projection and Scenario #1 were out of range for both the West Bank and Gaza.
- For the West Bank, Scenario #2 at 1.58 million is at the top of the range and Scenario #3 at 1.35 million is in range.
- For Gaza, Scenario #2 is out of range and only Scenario #3 is in range at 1.06 million.

### Trend Impact Analysis (TIA)

- The Team generated a *Trend Impact Analysis (TIA)* to test our growth scenarios. Using the growth rate of Jordan as a base-line, the TIA applied extraneous factors such as immigration and emigration to determine that Scenario#2 was a “best fit” to the actual population growth in the West Bank and Gaza.

### Population Center Comparisons

- The PA’s current population reports for the West Bank and Gaza diverge significantly from journalistic and other reports of population in these areas. As example, the PA reports the population of greater Hebron at almost the size of Jerusalem and the population of greater Nablus to be as large as Tel Aviv.

# Arab Population In the West Bank & Gaza *The Million and a half Person Gap*

## Worldwide & Regional Comparisons

### Middle East 1970 - 2005

- While Total Fertility Rates, Birthrates, and Population Growth Rates have declined dramatically throughout the Middle East, the Palestinian Central Bureau of Statistics continues to report high rates for the West Bank and Gaza.
- Contradicting the PCBS, the Palestinian Ministry of Health reports that those rates have dropped dramatically since the mid-1990s.
- Scenario #3, the Update of the Israel's Projection from 1990, is the only scenario that matches the lower statistics reported by the PA Ministry of Health and the statistics measured throughout the region.

### World 2004

- Higher birth societies in the 3<sup>rd</sup> World universally share characteristics of higher death rates, lower life expectancy, higher infant mortality, and lower immigration rates. The only consistent exceptions are the PA statistics for the West Bank and Gaza. The PCBS reports 3<sup>rd</sup> World statistics when it comes to births and 1<sup>st</sup> World characteristics when it comes to death and life expectancy. This discrepancy should have been one signal for academics and demographers to examine statistics reported to world bodies by the PA.
- Other Arab societies that have achieved higher life expectancy exhibit lower birthrates characteristic of more modern societies.
- There is a particularly low birthrate in Jordan, a society that shares many characteristics with Palestinian Arabs.

## Final Scenario Selection

- The Team evaluated each population scenario against a variety of corroborative data from Palestinian, Israeli and 3<sup>rd</sup> Party sources to determine that Scenario #3, the Update of Israel's Projection from 1990, and Scenario #2, the *Residents Only* Update from 1996 have the most corroboration among all the population scenarios. Scenario #1, the Update of the 1997 PA Projection, is only possible if one counts *non-resident* Palestinians in the population. The original 1997 PA Projection fails when tested against even Palestinian sources.
- The Team averaged the results of the only two plausible scenarios for a *Resident Only* population, **and subtracted the impact of internal migration** from the West Bank and Gaza into pre-'67 Israel, to calculate the most likely Palestinian Arab population in the West Bank and Gaza at the beginning of 2004 as 2.42 million with 1.35 million for the West Bank and 1.07 million for Gaza

# Arab Population In the West Bank & Gaza *The Million and a half Person Gap*

## Implications/Conclusions

- Jews have maintained their demographic position in Israel and the territories since 1967. This ratio has remained stable throughout the years.
- Jews & Jewish Affiliated Groups maintain a 60% majority
  - The diverse Israeli Arab group, including Druze, Christian Arabs, and Moslems, have also been a fast growing segment in Israeli society.
  - The proportion of Palestinian Arabs in the West Bank and Gaza has remained stable at one quarter of the population in the land.
- Jews are a majority in the area between the Jordan River and the Mediterranean Sea.
    - There are 3 Jews for every 2 Arabs in Israel, the West Bank, and Gaza
    - Jews outnumber Arabs 2 to 1 in the area of Israel and the West Bank.
    - Jews are a dominant majority within the border of Israel (including all of Jerusalem) outnumbering Arabs 4 to 1.
  - Israel is more *multicultural*, but not more “Palestinian Arab”. Some researchers have misplaced any non-Jew in the “Palestinian” category.
  - As in 1967, Israel faces a very real issue on the status of a large *minority* population in the West Bank & Gaza.

## Growth in 1990 - 2004

- All groups in Israel grew at a robust pace from 1990 through 2004: *Jews grew at a 2.5% rate, West Bank Arabs grew at a 2.7% annual rate, Israeli Arabs at a 3.1% annual rate, and Gaza Arabs at a 3.9% annual rate.*
- Growth rates for the West Bank and Gaza were dramatically below levels forecast by the PA in 1997
- Israeli Jews have maintained their growth rate and are not being *overwhelmed* demographically by Arab growth.

## Growth in 2000 - 2004

- All groups have experienced a slowdown in growth over the past few years except for the Israeli Arab sector: *Jews grew at a 1.7% annual rate, West Bank Arabs at a 1.8% annual rate, Israeli Arabs at a 3.1% rate and Gaza Arabs at a 3.0% rate.*
- Growth rates in the West Bank Arabs are no faster than growth rates for Israeli Jews.
- The difference in growth rates of the above listed groups are low enough that demographic change will be slow and gradual.

## Impact of Immigration

- Previous immigration waves of Jews to Israel have dramatically increased the growth rate of Israeli Jews well beyond Arab growth rates.
- Every 25 thousand annual increase in Jewish immigration increases the Jewish annual growth rate by 0.5%

# Arab Population In the West Bank & Gaza *The Million and a half Person Gap*

## Accounting for Internal Migration

Without crossing any formal border, many West Bank and Gaza Arabs have obtained Israeli citizenship and residency rights. Many are ‘illegal’ immigrants who are not registered by authorities. Others are those with Israeli ID cards who have moved back to areas within Israeli jurisdiction – especially in the area of Jerusalem. Still others have changed their status to become new Israeli citizens or permanent residents of the State. Those with ID cards are counted in Israel’s population survey.

In November 2003, the Israel Ministry of Interior Population Administration Division counted the number of Arab nationals who had received Israeli IDs under family reunification programs from 1993 as 150 thousand. This number is overwhelmingly made up of internal migrants from the West Bank and Gaza.

The issue bears close investigation because this migration would explain the high Israeli Arab growth rate and it would also further reduce our understandings of growth rates in the West Bank and Gaza. One of the major factors of the high Israeli Arab growth rate has been the internal migration from the West Bank and Gaza into pre-’67 Israel and Jerusalem. Assessing the impact of the internal migration, the Team calculated that *the natural growth rate (the growth rate before migration) for Israeli Arabs is only 2.1% -- less than the 2.5% growth rate for Israeli Jews since 1990.*

## A Final Word

We expect that academicians will welcome our Team’s work. It is the Team’s hope that this study will help to initiate further research on this important topic of demography in the Middle East. Certainly there should be more research to reconcile the widely differing population indicators reported by various PA agencies. It is impossible to reconcile between different Palestinian agencies.

Projections are often wrong. In the case of the 1997 PA Projection for the West Bank and Gaza, our Team found that the PA’s predictions just didn’t occur according to the *actual* data recorded by Palestinian agencies. Furthermore, we found corroboration that showed the Israeli projections for the areas were more accurate and need to be considered by any serious demographer.

Demographers should ask the following *Four Questions* of the PA:

- #1) Why did the PA Central Bureau of Statistics not update its forecast with PA Ministry of Health birth data?
- #2) Why did the PA not use net emigration figures in place of the forecasted 1.5% annual immigration into the West Bank and Gaza?
- #3) Why does the PA not report a *de facto resident* population figure for the West Bank and Gaza?
- #4) Why does the PA retroactively restate birth data and growth statistics that differ from annually reported figures?

Given that the topic of demography in the West Bank and Gaza is contentious, we anticipate intense scrutiny of our work. We welcome that scrutiny and demand only that the same scrutiny be applied to PA data as well.

# Arab Population In the West Bank & Gaza *The Million and a half Person Gap*

Millions of People

5.0

4.0

3.0

2.0

1.0

0

## Summary of Results Population in 2004

3.83 Million



3.06 Million



2.73 Million



2.41 Million



Gaza

West Bank

Palestinian  
1997  
Census &  
Projection

Update of  
1997 PA Projection  
**Scenario #1**

*Residents Only*  
Base Update  
**Scenario #2**

Update of  
Israel Projection  
**Scenario #3**

# Arab Population In the West Bank & Gaza Primary Palestinian Sources

Palestinian data is inconsistent because PA agencies report statistics that differ significantly from each other. More than anything else, the publication of current information by Palestinian agencies has contradicted the growth assumptions contained in the original PCBS Projections.

## *“Palestinian vs. Palestinian”*

### Palestinian Central Bureau Of Statistics (PCBS)

- Conducted PA 1997 Census & Projection
- Published growth assumptions for births, deaths, and migration
- Current publications repeat these original projections without any modification for changing birthrates and changing migration patterns

### Palestinian Authority Ministry Of Health (PA MOH)

- Reports annual statistics for births and deaths in West Bank in Gaza
- Annual statistics are consistently below figures published by PCBS
- Growth rates and fertility rates are consistently below figures published in by PCBS

### Palestinian Central Election Commission (CEC)

- Voting Reports with statistics on eligible voters 18 and above.
  - October 2004 Municipal & Presidential Elections
  - PA Parliamentary Elections January 1996

- The Palestinian Central Bureau of Statistics (PCBS) issued the original 1997 projection of population for the PA territories with generous assumptions for natural growth and immigration. The PA has not modified their count or projection.
- In each year since 1997, the PA Ministry of Health has reported statistics that do not confirm the large growth assumptions in the original 1997 PA Projection.
- The Palestinian Central Election Commission has reported statistics on eligible voters (all those 18 and above) that directly contradict the population projections issued by the PCBS.

# Arab Population In the West Bank & Gaza Primary Israeli Sources

Israel Central Bureau of Statistics (ICBS) population estimates for the territories from 1967 until the early 1990s were matched by the issuance of ID cards and school records for incoming students. Most importantly, recent October 2004 Voting Reports issued by the PA indicate that Israel's previous population age breakdowns were among the closer projections of adults that would be resident in the territories today.

Therefore, the Team decided to fully examine statistics gathered by Israel for the West Bank and Gaza.

## Israel Central Bureau of Statistics (ICBS)

- Publishes annual statistics for all population segments in Israel
- Published annual statistics for population in West Bank and Gaza through 1993

## Israel Civil Administration for West Bank and Gaza

- Conducted formal census of West Bank and Gaza in 1967
- Issued ID Cards to residents
- Maintained school records
- Performed numerous population studies:
  - last for West Bank in 1990
  - last for Gaza in 1987

## Israel Border Police

- Maintains records on Exits/Entries at all the borders to Israel, West Bank and Gaza

## Israel Ministry of Interior

- Maintains records on ID Cards issued to internal migrants from West Bank and Gaza into Israel

- Israel kept detailed records on the West Bank and Gaza until the formation of the Palestinian Authority. These responsibilities were transferred in Gaza as of May 1994 and in the West Bank from the end of 1994 gradually until the end of 1995.
- The Israel Border Police continues to maintain records for all border crossings into and from PA areas to outside countries.
- The Ministry of Interior maintains records on ID cards issued to all Israel's residents. They performed this function for residents of the West Bank and Gaza until the transfer of responsibilities to the Palestinian Authority in 1994 and 1995.

**Arab Population**  
**In the West Bank & Gaza**  
*The Million and a half Person Gap*

**2. The Population Scenarios**

- Base Case: 1997 PA Census & Projection
- Scenario #1: Update of 1997 PA Projection *with* Official Data (1998 – 2004)
- Scenario #2: *Residents Only* Update (1996 – 2004)
- Scenario #3: Update of Israel Projection (1990 – 2004)

# Population Scenarios

## A Comparison of Methodologies & Sources

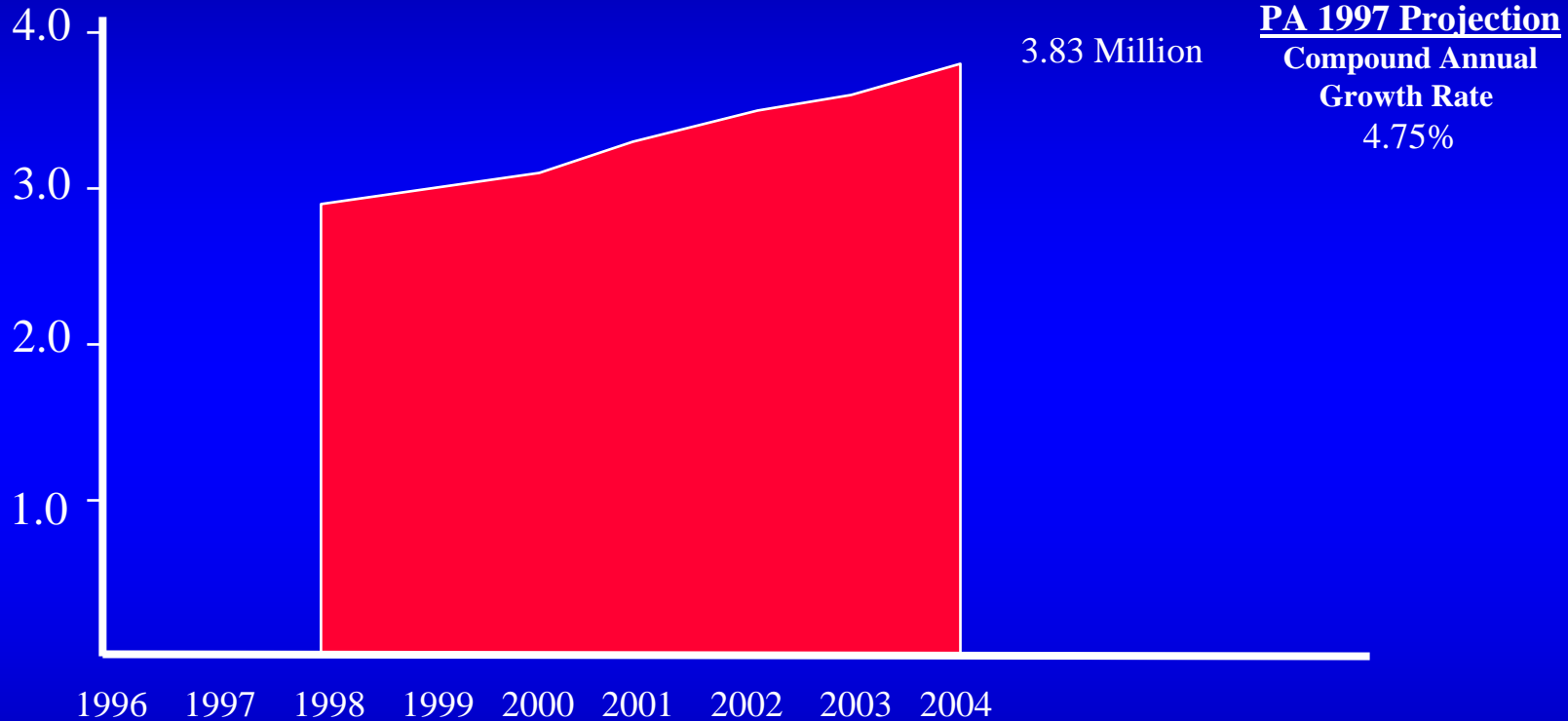
	Population Base	Births	Deaths	Immigration/ Emigration*	Double Counts
<b>PA 1997 Projection (1997-2004) 3.8 Million</b>	Dec. 1997 Population Base of 2.89 Million	Assumes High Birthrate will continue all years of Projection (4-5% annually)	Assumes Low Death-Rate (0.4% to 0.5% annually)	Assumes High Annual Immigration reaching over 50 thousand a Year	Double-Counts Jerusalem Arabs counted in Israel Population Survey
<b>Scenario #1 Update of PA Census (1998-2004) 3.06 Million</b>	Uses PA Census Base of 2.6 Million for West Bank & Gaza without question	Uses <i>actual</i> Births as reported by PA Ministry of Health	Uses <i>actual</i> Deaths as reported by PA Ministry of Health	Uses <i>actual</i> data recorded at border crossings to Jordan, Egypt, and Ben Gurion Airport	Removes Jerusalem Double-Count
<b>Scenario #2 Residents Only Base Update (1996-2004) 2.73 Million</b>	Uses <i>Residents Only</i> Base between Israeli and PA estimates for begin-year '96  Base corroborated with World Bank data and PA Voting Records	Uses <i>actual</i> Births as reported by PA Ministry of Health	Uses <i>actual</i> Deaths as reported by PA Ministry of Health	Uses <i>actual</i> data recorded at border crossings to Jordan, Egypt, and Ben Gurion Airport	Removes Jerusalem Double-Count
<b>Scenario #3 Update of Israel Projection (1990-2004) 2.41 Million</b>	Uses Israel Civil Admin. Survey from 1989/1990  Base corroborates to Israel ID Cards and School Records	Uses actual Births as Recorded by Israel Civil Admin '90-'93  Adjusts PA Births '94-2003 to be consistent with previously recorded data	Uses actual Deaths as Recorded by Israel Civil Admin '90-'93  Uses <i>actual</i> Deaths as reported by PA Ministry of Health '94-2003	Uses <i>actual</i> data recorded at border crossings to Jordan, Egypt, and Ben Gurion Airport	Never included Jerusalem Double-Count

\*Note: None of the scenarios account for the internal migration from the West Bank and Gaza into pre-'67 Israel and Jerusalem. This migration will be subtracted as a last step after evaluation of all population scenarios.

# Base Population Projection

## 1997 PA Census and Projection (1997 - 2004)

Millions of People



Source: Palestine Central Bureau of Statistics 1997 Census and Projection (2)

- The PA 1997 Census & Projection forecast a Palestinian Arab population of 3.8 million by mid-year 2004.

# Base Population Projection

## *1997 PA Census*

In December 1997, the PA conducted a census of the population in the West Bank & Gaza. This Census included Palestinians *living abroad* who had ID cards to return to the West Bank and Gaza, even if they have been away for long-term periods over one year. (3) [See Appendix A]

The PA reported a total of 1.6 million people in the West Bank and 1.0 million in Gaza, for a total base population of 2.6 million people at year-end 1997.

The PA added 83 thousand “*post-enumerated*” (4) individuals after the conclusion of the census. The PA also included 210 thousand Arabs living in Jerusalem to get a total population count in mid-year 1998 of 2.89 million.

As Jerusalem’s Arabs are counted in Israel’s population survey it is important not to *double-count* these persons in any population estimate for the West Bank and Gaza. In all our projections, we will consistently include the population of the West Bank outside the municipal boundaries of Jerusalem.

We use the PA’s year-end 1997 figure of 2.6 million as the base, without question, in our first population scenario.

PA December 1997 Census	West Bank	Gaza	Total
<b>Population Counted in Census</b>	1,600,100	1,001,569	2,601,669
<b>Post Enumeration Jerusalem</b>	63,167 210,209	20,638	83,805
<b>Final Results incl. Jerusalem</b>	1,873,476	1,022,207	2,895,683
<b>Final Results w/o Jerusalem</b>	1,663,267	1,022,207	2,685,474

Sources: Palestine Census 1997 (4)

# Base Population Projection

## *1997 PA Projection*

With the release of its 1997 Census, the PA published a population projection with assumed rates for births, deaths and migration. These rates projected growth of between 4 and 5% per annum in the West Bank and Gaza.

The PA also assumed that immigration would increase greatly into the PA territories beginning in the year 2000, the same year that hostilities broke out again in the region.

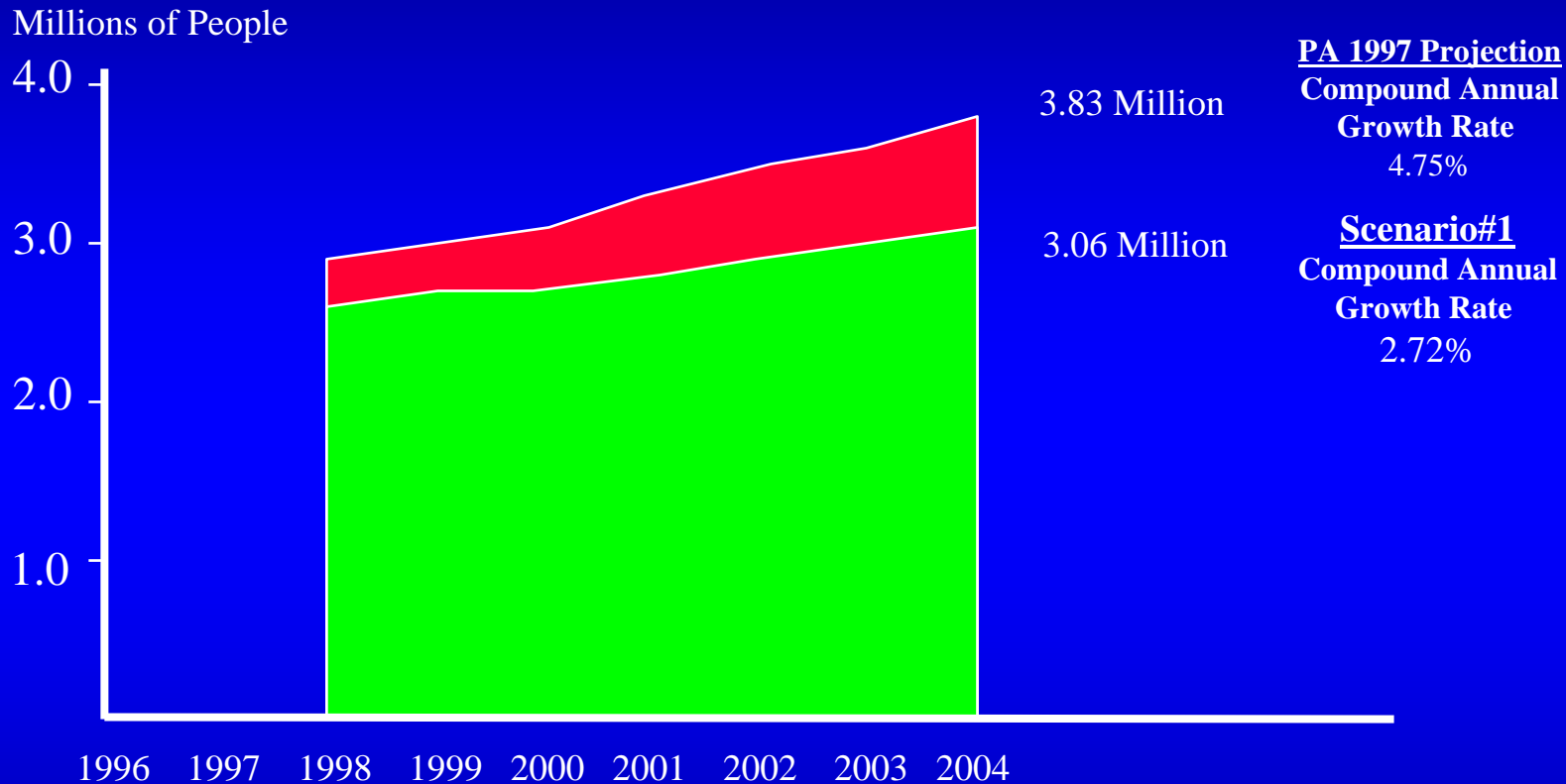
The result was a projection of 3.8 million people for mid-year 2004.

These projections have served as the basis for many demographers in their analysis of population trends for the West Bank and Gaza. The PA has not updated or changed these projections since their original release.

<b>1997 PA Census &amp; Projection</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>
	2,783,084	2,897,452	3,019,704	3,150,056	3,298,951	3,472,121	3,647,875	3,827,914
<b>Crude Births</b>	118,810	121,722	124,865	128,270	132,420	138,433	143,106	
<b>Crude Deaths</b>	13,303	13,473	13,619	13,797	14,087	14,826	15,175	
<b>Net Migration</b>	8,861	14,003	19,106	34,422	54,837	52,146	52,108	
<b>New Base</b>	2,897,452	3,019,704	3,150,056	3,298,951	3,472,121	3,647,875	3,827,914	
<b>PCBS Growth Rate</b>	4.1%	4.2%	4.3%	4.7%	5.2%	5.1%	4.9%	
<b>PCBS Crude Birth Rate</b>	4.3%	4.2%	4.1%	4.1%	4.0%	4.0%	3.9%	
<b>PCBS Crude Death Rate</b>	0.5%	0.5%	0.5%	0.4%	0.4%	0.4%	0.4%	
<b>Implied Migration Rate</b>	0.3%	0.5%	0.6%	1.1%	1.7%	1.5%	1.4%	

Sources: Palestine Central Bureau of Statistics  
Demographic Indicators of the Palestinian Territory, 1997 – 2015 (2)

# Scenario #1: Update of 1997 PA Projection *with* Official Data (1997 - 2004)



Source: Palestine Central Bureau of Statistics 1997 Census and Projection (2)  
 PA Ministry of Health Reports 1996 – 2003 (5)  
 Border Data for Jordan, Egypt & Ben Gurion Airport (6)

- Scenario #1 updates the December 1997 PA Census with PA Ministry of Health data for births and deaths and actual border data to calculate a population of 3.06 million at the beginning of 2004

## Scenario #1: Update of 1997 PA Projection *with* Official Data: Result 3.06 Million

Our goal in Scenario #1 was to use Palestinian sourced data wherever possible as the basis for our projections.

For the base count at year-end 1997, we use the PA December 1997 Census base count of 2.6 million for the West Bank (*without* Jerusalem) and Gaza as given. (4)

Next, we looked up the number of births and deaths published by the PA Ministry of Health for each year, 1998 – 2003, and actual entries & exits at border crossings to Jordan, Egypt and at Ben Gurion Airport for those same years to arrive at a total population of 3.06 million for the West Bank and Gaza at the beginning of 2004. (5) (6)

The result was 772 thousand less than the PA Projection of 3.827 million for 2004.

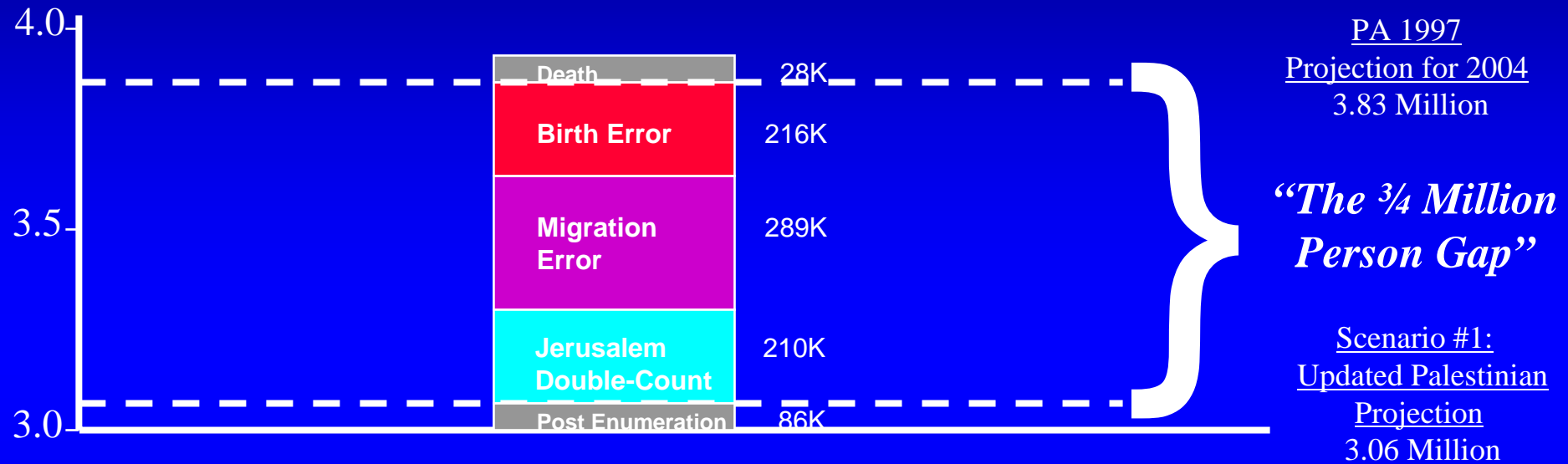
Scenario #1 accepts PA data at face value. It demonstrates that the PA forecast did not occur because there were fewer births and no immigration. For those who choose to rely only on PA published figures this scenario represents the *highest possible estimate* of population in the West Bank and Gaza, including residents *living abroad*.

Scenario #1: Updated Palestinian Projection								
	1997	1998	1999	2000	2001	2002	2003	2004
<b>West Bank</b>								
<b>Base</b>		1,600,100	1,651,855	1,685,058	1,731,974	1,773,118	1,810,996	1,855,751
<b>Births</b>		58,780	56,448	54,349	53,986	52,670	59,421	
<b>Deaths</b>		4,890	5,303	5,488	5,329	6,408	5,786	
<b>Net Migration</b>		(2,135)	(17,942)	(1,945)	(7,514)	(8,384)	(8,880)	
<b>New Base</b>	1,600,100	1,651,855	1,685,058	1,731,974	1,773,118	1,810,996	1,855,751	1,855,751
<b>Gaza</b>								
<b>Base</b>		1,001,569	1,035,981	1,064,460	1,098,152	1,130,358	1,165,084	1,200,128
<b>Births</b>		38,953	37,810	38,169	38,497	41,736	42,226	
<b>Deaths</b>		3,650	3,685	3,630	3,894	4,397	4,398	
<b>Net Migration</b>		(891)	(5,646)	(847)	(2,396)	(2,613)	(2,784)	
<b>New Base</b>	1,001,569	1,035,981	1,064,460	1,098,152	1,130,358	1,165,084	1,200,128	1,200,128
<b>Total</b>								
<b>Base</b>		2,601,669	2,687,836	2,749,518	2,830,126	2,903,476	2,976,080	3,055,879
<b>Births</b>		97,733	94,258	92,518	92,483	94,406	101,647	
<b>Deaths</b>		8,540	8,988	9,118	9,223	10,805	10,184	
<b>Net Migration</b>		(3,026)	(23,588)	(2,792)	(9,910)	(10,997)	(11,664)	
<b>New Base</b>	2,601,669	2,687,836	2,749,518	2,830,126	2,903,476	2,976,080	3,055,879	3,055,879

# Scenario #1: Update of 1997 PA Projection

*“The ¾ Million Person Gap”*

Millions of People



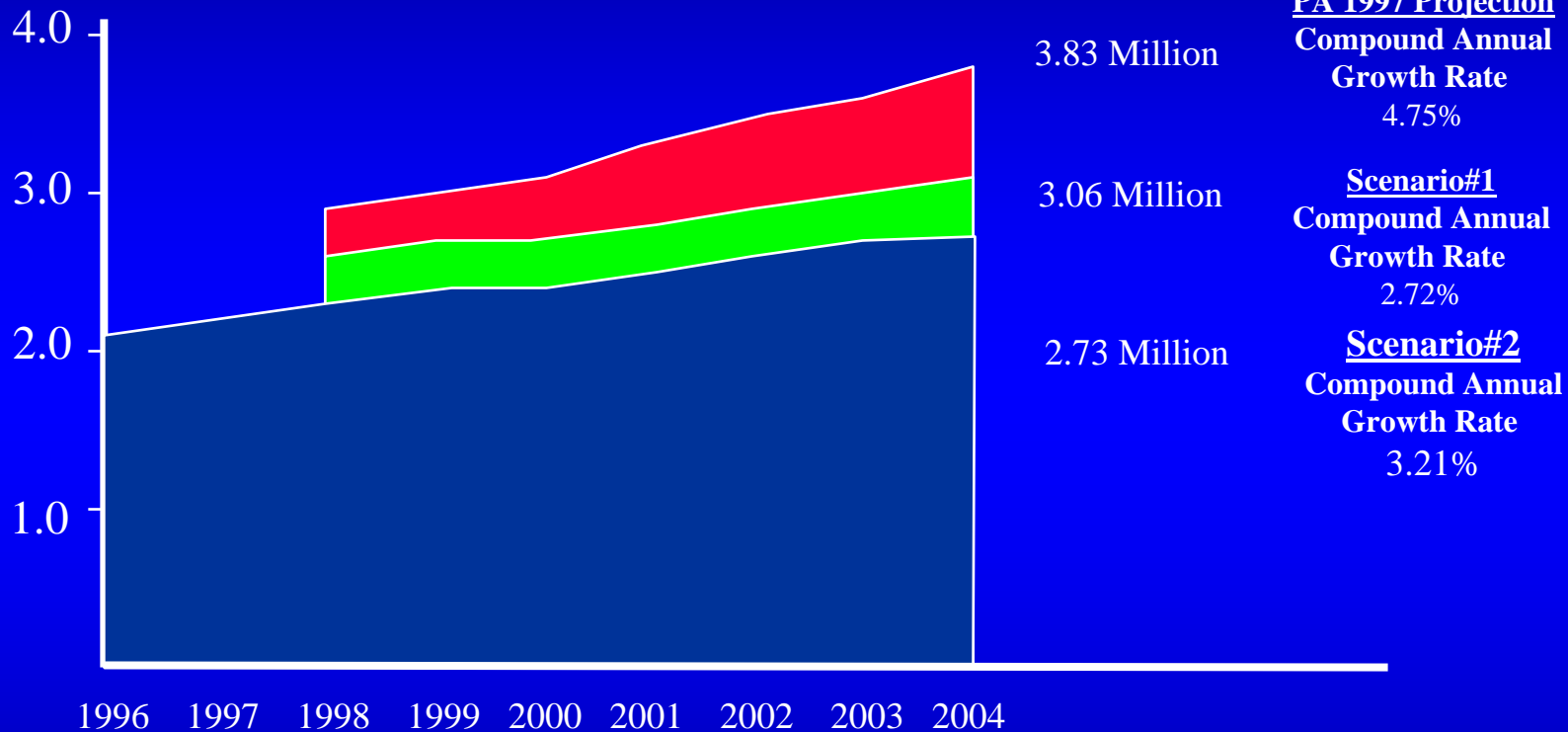
Rationalization of PA 1997 Census & Scenario #1	PA Proj.	Jerusalem	Mid-Year Adjustment	Scen. #1	Difference
Dec 1997 Base	2,897,452	210,209	85,574	2,601,669	295,783
Births	788,816			573,045	215,771
Deaths	(84,977)			(56,858)	(28,119)
Immigration/Emigration	226,622			(61,977)	288,599
2004 Population	3,827,914			3,055,879	772,035

The result was 3.055 million – a full 772 thousand less than PA Projection of 3.827 million for 2004.

- 216 thousand less births were reported by Palestinian Ministry of Health than number projected by PA in 1997
- 28 thousand less deaths were reported by PA Ministry of Health than projected by PA in 1997 (*thereby increasing final count*)
- Net migration was 289 less than projected; instead of a large immigration of 227 thousand a net 62 thousand left the country from 1998 - 2003
- The PA 1997 Projection included Jerusalem Arabs that are already counted in Israel’s Population Registry
- After the 1997 Census, the PA added 86 thousand as “post-enumerated” individuals to their December count to calculate a mid-year figure. We adjust figures to the beginning of the year by removing post-Census enumeration.

## Scenario #2: Residents Only Base Update (1996 - 2004)

Millions of People



Source: Palestine Central Bureau of Statistics 1997 Census and Projection (2)  
 PA Ministry of Health Reports 1996 – 2003, PA Voting Report for January 1996 (5)  
 Border Data for Jordan, Egypt & Ben Gurion Airport (6)  
 Israel Central Bureau of Statistics 1996 (7)

- Scenario #2 determines a *Residents Only* Base Population between the *highest* Israeli estimate and below the *lowest* Palestinian estimate for *residents* at the beginning of 1996. The average of 2.124 million was matched with data issued by the PA for Parliamentary Elections in 1996.
- Next, we used the *same* methodology as in Scenario #1 where we used PA Ministry of Health statistics for number of births and deaths for 1996 through 2003, along with actual border data, and arrived at a population count of 2.73 million for 2004

## Scenario #2: Residents Only Base Update from 1996: Result 2.73 Million

With the 1997 PA Census, the PA reported a base population that was substantially higher than previous Israeli and Palestinian estimates. Significantly, the PA included many Palestinians *living abroad* in their population count, even if these individuals had been away for many years. (3)

Scenario #2 determines a *Residents Only* Base Population between the *highest* Israeli estimate (ICBS) and below the *lowest* Palestinian estimate for *residents* (PA Ministry of Health) at the beginning of 1996. The average of 2.124 million was consistent with data issued by the PA for Parliamentary Elections in 1996. (5) (7)

Except for a new resident population base, the methodology for Scenario #2 is the same as for Scenario #1. That is, we used PA Ministry of Health Births & Deaths as given for each year, 1996 – 2003, and Actual Entries & Exits at border crossings for the same period to arrive at a total of 2.73 million for the West Bank and Gaza in 2004. (5) (6)

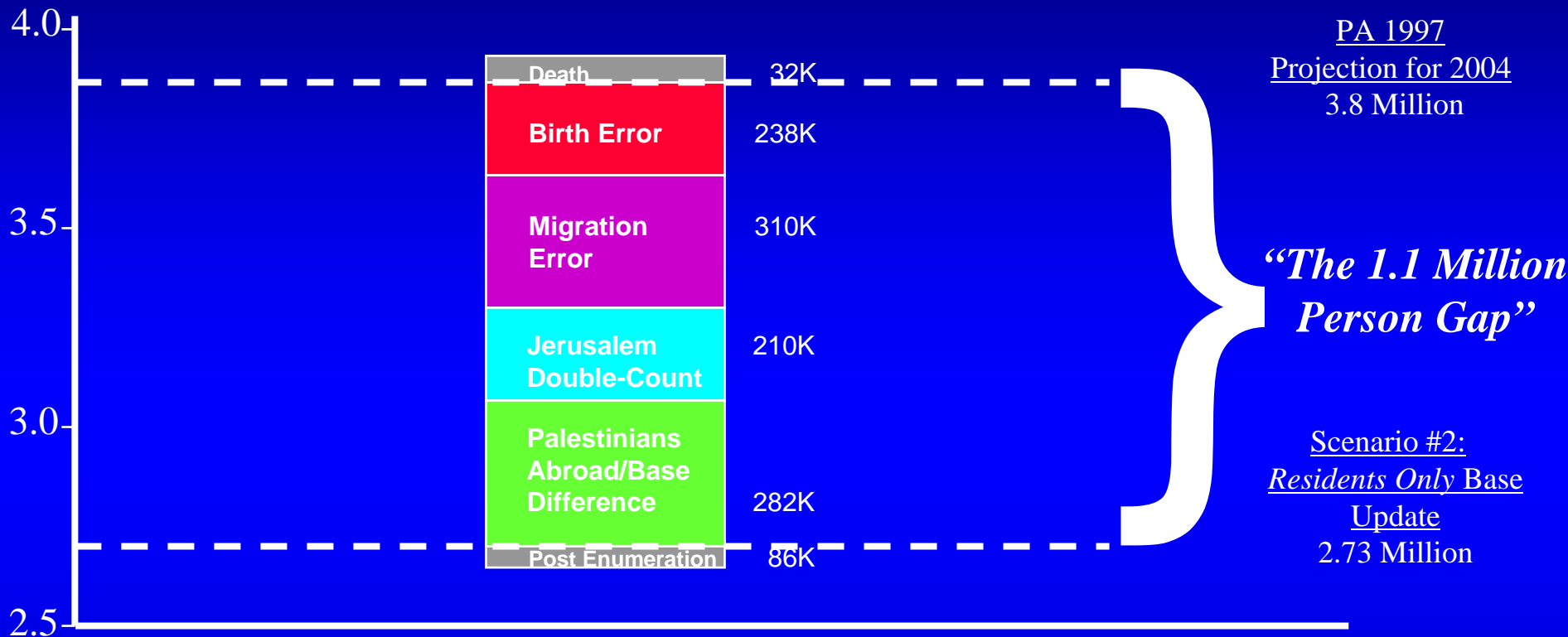
The population count in this scenario is 1.1 million less than the figure originally projected by the PA for 2004.

	1996	1997	1998	1999	2000	2001	2002	2003
<b>West Bank</b>								
<b>Base</b>	1,239,740	1,286,910	1,329,229	1,380,984	1,414,188	1,461,104	1,502,247	1,540,125
<b>Births</b>	60,664	56,913	58,780	56,448	54,349	53,986	52,670	59,421
<b>Deaths</b>	4,706	5,236	4,890	5,303	5,488	5,329	6,408	5,786
<b>Net Migration</b>	(8,788)	(9,358)	(2,135)	(17,942)	(1,945)	(7,514)	(8,384)	(8,880)
<b>New Base</b>	1,286,910	1,329,229	1,380,984	1,414,188	1,461,104	1,502,247	1,540,125	1,584,880
<b>Gaza</b>								
<b>Base</b>	884,260	918,288	950,947	985,359	1,013,838	1,047,530	1,079,737	1,114,462
<b>Births</b>	40,389	39,352	38,953	37,810	38,169	38,497	41,736	42,226
<b>Deaths</b>	3,537	3,673	3,650	3,685	3,630	3,894	4,397	4,398
<b>Net Migration</b>	(2,824)	(3,019)	(891)	(5,646)	(847)	(2,396)	(2,613)	(2,784)
<b>New Base</b>	918,288	950,947	985,359	1,013,838	1,047,530	1,079,737	1,114,462	1,149,506
<b>Total</b>								
<b>Base</b>	2,124,000	2,205,198	2,280,177	2,366,344	2,428,026	2,508,634	2,581,984	2,654,588
<b>Births</b>	101,053	96,265	97,733	94,258	92,518	92,483	94,406	101,647
<b>Deaths</b>	8,243	8,909	8,540	8,988	9,118	9,223	10,805	10,184
<b>Net Migration</b>	(11,612)	(12,377)	(3,026)	(23,588)	(2,792)	(9,910)	(10,997)	(11,664)
<b>New Base</b>	2,205,198	2,280,177	2,366,344	2,428,026	2,508,634	2,581,984	2,654,588	2,734,387

## Scenario #2: Residents Only Base Update from 1996

*“The 1.1 Million Person Gap”*

Millions of People

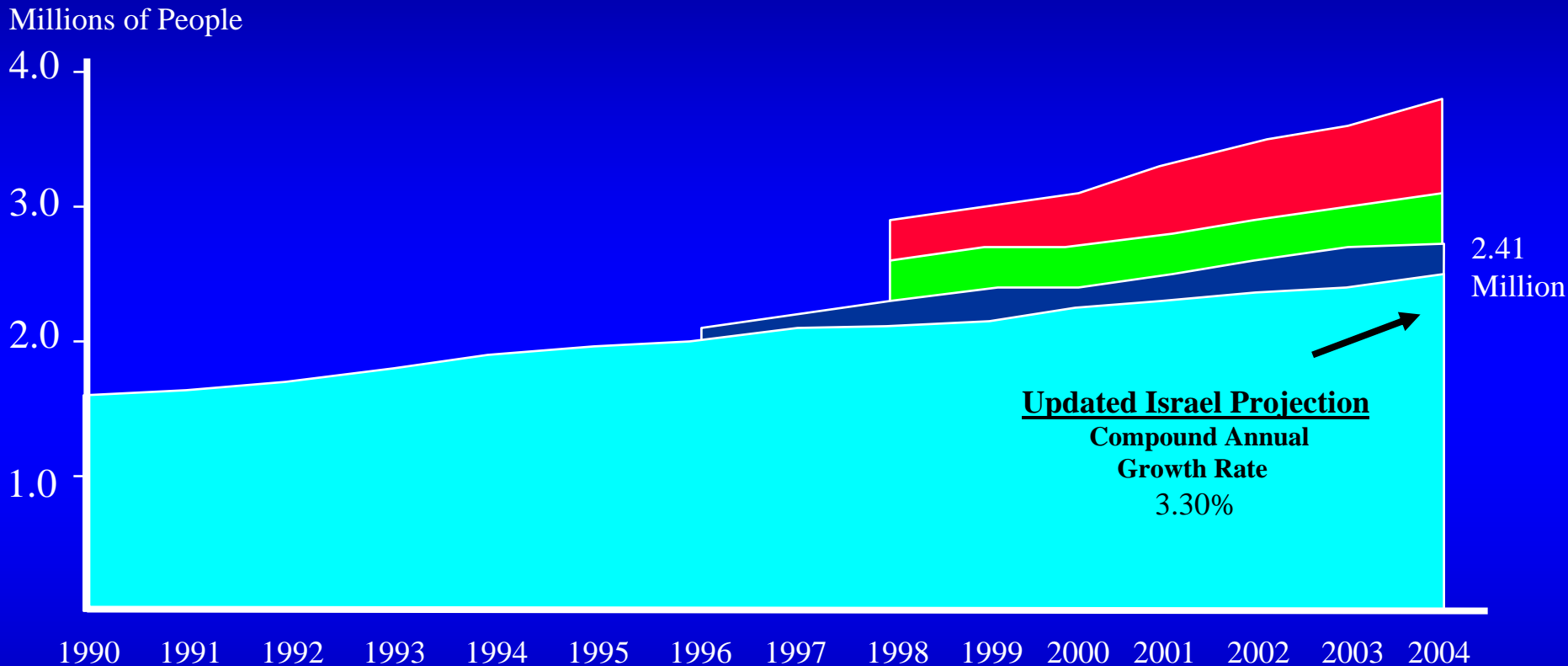


Rationalization of PA 1997 Census & Scenario #2	<u>PA Proj.</u>	<u>Jerusalem</u>	<u>Mid-Year</u>	<u>Non-Res</u>	<u>Scen. #2</u>	<u>Difference</u>
			<u>Adjustme</u>	<u>Adjustment</u>		
Dec 1997 Base	2,783,084	210,209	85,574	<b>282,103</b>	2,205,198	577,886
Births (97 - 2003)	907,626				669,310	238,316
Deaths ('97-2003)	-98,280				-65,767	-32,513
Immigration/Emigration ('97-2003)	235,484				-74,354	309,838
<b>2004 Population</b>	<b>3,827,914</b>				<b>2,734,387</b>	<b>1,093,527</b>

Using a 1996 *Residents Only* Base derived from a number of Palestinian and Israeli sources, we calculated a population base that was approximately 300 thousand, or 13%, less than the 1997 Census which included Palestinians living abroad.

This difference further reduces the total population count in the West Bank and Gaza to 2.73 million – a full 1.1 million less than the PA Projection of 1997.

## Scenario #3: Update of Israel Projection from 1990 (1990-2004)



Source: Palestine Central Bureau of Statistics 1997 Census and Projection (2)  
 PA Ministry of Health Reports 1996 – 2003 (5)  
 Border Data for Jordan, Egypt & Ben Gurion Airport (6)  
 Israel Central Bureau of Statistics 1990-1993, (8) PA Ministry of Health Births 1994 – 2003 aligned to Israel data (5)

- Scenario #3 Updates Israel's 1990 Projection using Israel's recorded birth data from the early 1990s and then aligns Palestinian birth data to be consistent with Israel data, adds actual border data, and computes a population of 2.4 million at the beginning of 2004.

## Scenario #3: Update of Israel Projection from 1990: Result 2.41 Million

From 1967 until the early 1990s, Israel's Civil Administration kept population statistics for the West Bank and Gaza. These statistics were corroborated by the issuance of ID cards that matched the number of adults in Israel's population count. School records and immunization records correlated with the number of youths reported in Israel's population estimates. (9)

Most importantly, October 2004 Voting Reports issued by the PA (10) [Included in Appendix B] indicate that Israel's previous population age breakdowns were among the closer projections of adults resident in the territories today. [See Appendix C] Given that PA agencies were shown to change official birth figures retroactively, the Team thought this study would be more accurate if it examined the birthrates observed and corroborated by Israel during its administration of the West Bank and Gaza. (5) (8)

Using Israel Civil Administration data for Palestinian Arab births from 1990 – 1993, adjusted PA Ministry of Health birth data from 1994 to be in line with Israeli measurements, and actual migration data, we measured the Arab population of the West Bank and Gaza at 2.41 million for 2004.

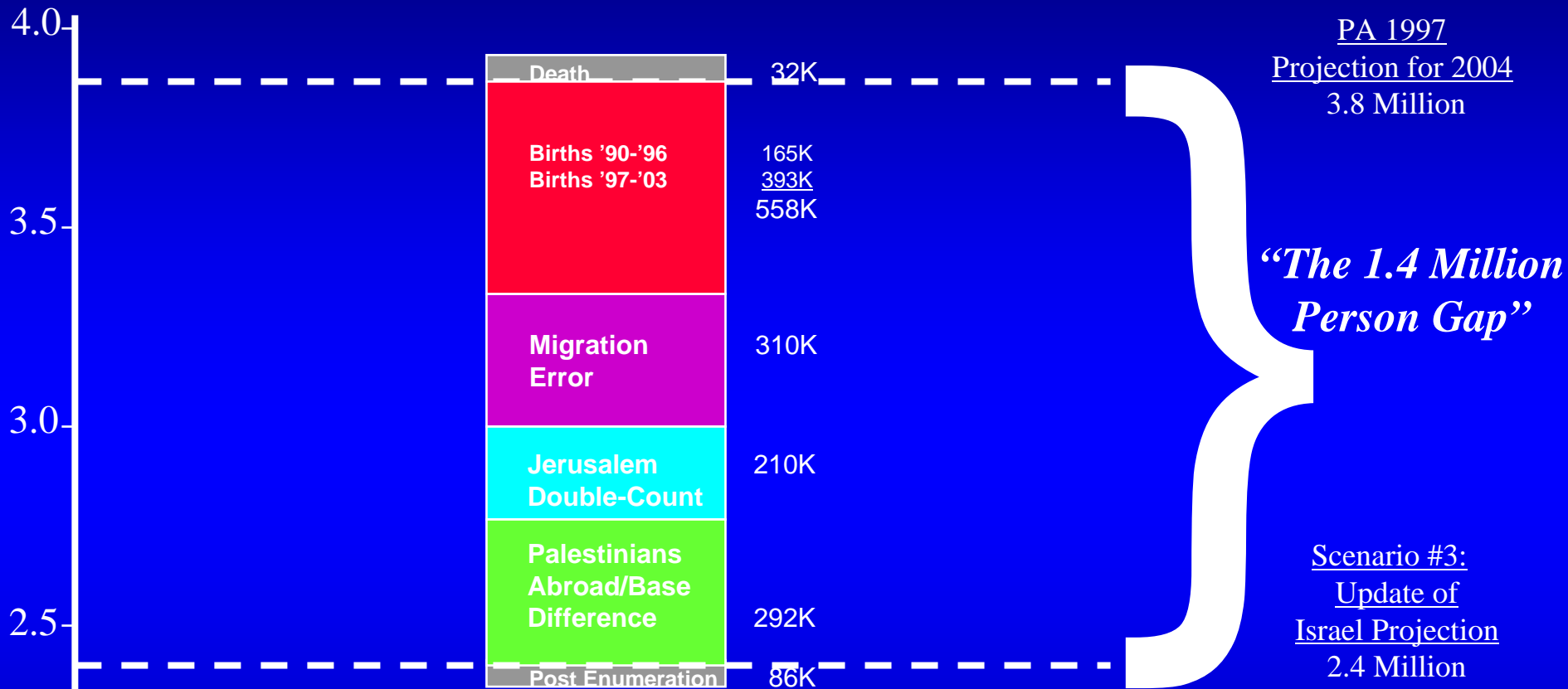
This number is 1.45 million less than the figure originally projected by the PA.

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
<b>West Bank</b>														
<b>Base</b>	915,900	950,417	993,538	1,038,025	1,066,270	1,116,431	1,151,429	1,178,917	1,202,772	1,235,457	1,250,347	1,279,630	1,303,258	1,324,049
<b>Births</b>	35,500	40,759	40,270	42,663	41,626	41,155	40,982	38,448	39,710	38,134	36,716	36,471	35,582	40,143
<b>Deaths</b>	4,165	4,645	5,113	5,304	4,265	4,466	4,706	5,236	4,890	5,303	5,488	5,329	6,408	5,786
<b>Net Migration</b>	3,182	7,007	9,330	(9,114)	12,800	(1,692)	(8,788)	(9,358)	(2,135)	(17,942)	(1,945)	(7,514)	(8,384)	(8,880)
<b>New Base</b>	950,417	993,538	1,038,025	1,066,270	1,116,431	1,151,429	1,178,917	1,202,772	1,235,457	1,250,347	1,279,630	1,303,258	1,324,049	1,349,525
<b>Gaza</b>														
<b>Base</b>	610,800	642,772	678,448	715,059	748,027	786,788	821,385	851,677	880,718	911,284	936,030	965,954	994,360	1,024,965
<b>Births</b>	34,286	37,018	37,599	39,436	38,815	38,388	36,402	35,467	35,107	34,077	34,401	34,696	37,616	38,057
<b>Deaths</b>	3,132	3,335	3,658	3,582	2,992	3,147	3,286	3,407	3,650	3,685	3,630	3,894	4,397	4,398
<b>Net Migration</b>	818	1,993	2,670	(2,886)	2,937	(643)	(2,824)	(3,019)	(891)	(5,646)	(847)	(2,396)	(2,613)	(2,784)
<b>New Base</b>	642,772	678,448	715,059	748,027	786,788	821,385	851,677	880,718	911,284	936,030	965,954	994,360	1,024,965	1,055,840
<b>Total</b>														
<b>Base</b>	1,526,700	1,593,189	1,671,986	1,753,084	1,814,297	1,903,219	1,972,814	2,030,595	2,083,490	2,146,741	2,186,377	2,245,584	2,297,618	2,349,014
<b>Births</b>	69,786	77,777	77,869	82,099	80,441	79,543	77,384	73,915	74,817	72,211	71,117	71,167	73,198	78,200
<b>Deaths</b>	7,297	7,980	8,771	8,886	7,257	7,613	7,992	8,643	8,540	8,988	9,118	9,223	10,805	10,184
<b>Net Migration</b>	4,000	9,000	12,000	(12,000)	15,737	(2,335)	(11,612)	(12,377)	(3,026)	(23,588)	(2,792)	(9,910)	(10,997)	(11,664)
<b>New Base</b>	1,593,189	1,671,986	1,753,084	1,814,297	1,903,219	1,972,814	2,030,595	2,083,490	2,146,741	2,186,377	2,245,584	2,297,618	2,349,014	2,405,366

# Scenario #3: Update of Israel Projection from 1990

## "The 1.4 Million Person Gap"

Millions of People



Rationalization of PA Data & Scenario #3	PA Proj.	Jerusalem	Mid-Year	Non-Res	Plug	Scen. #3	Difference
( <i>'97-'03 Portion</i> )			Adjustme.	Adjustment			
1997 Population	2,783,084	210,209	85,574	282,103	<b>174,603</b>	2,030,595	752,489
Births ('97-'03)	907,626					514,626	393,001
Deaths ('97-'03)	-98,280					-65,501	-32,779
Immigration/Emigration ('97-'03)	235,484					-74,354	309,838
<b>2004 Population</b>	<b>3,827,914</b>					<b>2,405,366</b>	<b>1,422,548</b>
<i>(<i>'90-'96 Portion</i>)</i>							
1990 Population	0	0	0	10,022	<b>0</b>	0	0
Births ('90-'96)	709,481					544,900	164,581

# Population Scenarios

## Summary of Results for 2004

	West Bank	Gaza	Total
<b>PA 1997 Projection (1997-2004)</b>	2.42 Million	1.41 Million	3.83 Million
<b><u>Scenario #1</u> Update of 1997 PA Projection (1998-2004)</b>	1.86 Million	1.20 Million	3.06 Million
<b><u>Scenario #2</u> <i>Residents Only</i> Base Update (1996-2004)</b>	1.58 Million	1.15 Million	2.73 Million
<b><u>Scenario #3</u> Update of Israel Projection (1990-2004)</b>	1.35 Million	1.06 Million	2.41 Million

# Population Scenarios

## Rationalization by Growth Factor

	Population Base	Births	Deaths	Immigration/ Emigration*	Double Counts
<b>PA 1997 Projection 3.8 Million</b>	<b>BASE</b>	<b>BASE</b>	<b>BASE</b>	<b>BASE</b>	<b>BASE</b>
<b>Scenario #1 Update of PA Census 3.06 Million Less 772 K</b>	<i>Less 86 K</i> Post Enumeration Adjustment	<i>Less 216 K</i>	<i>Less &lt;28 K&gt;</i>	<i>Less 289 K</i>	<i>Less 210 K</i> Jerusalem Double-Count
<b>Scenario #2 Residents Only Base Update 2.73 Million Less 1.093 M</b>	<i>Less 86 K</i> Mid-Year Adjustment  <i>Less 282 K</i> Non-Resident Adjustment	<i>Less 283 K</i> (2 More Years of Divergence)	<i>Less &lt;32 K&gt;</i> (2 More Years of Divergence)	<i>Less 310 K</i> (2 More Years of Divergence)	<i>Less 210 K</i> Jerusalem Double-Count
<b>Scenario #3 Update of Israel Projection 2.41 Million Less 1.423 M</b>	<i>Less 86 K</i> Mid-Year Adjustment  <i>Less 292 K</i> Non-Resident Adjustment	<i>Less 393 K</i> '97 – 2003  <i>Less 165 K</i> '90 – '96	<i>Less &lt;32 K&gt;</i>	<i>Less 310 K</i>	<i>Less 210 K</i> Jerusalem Double-Count

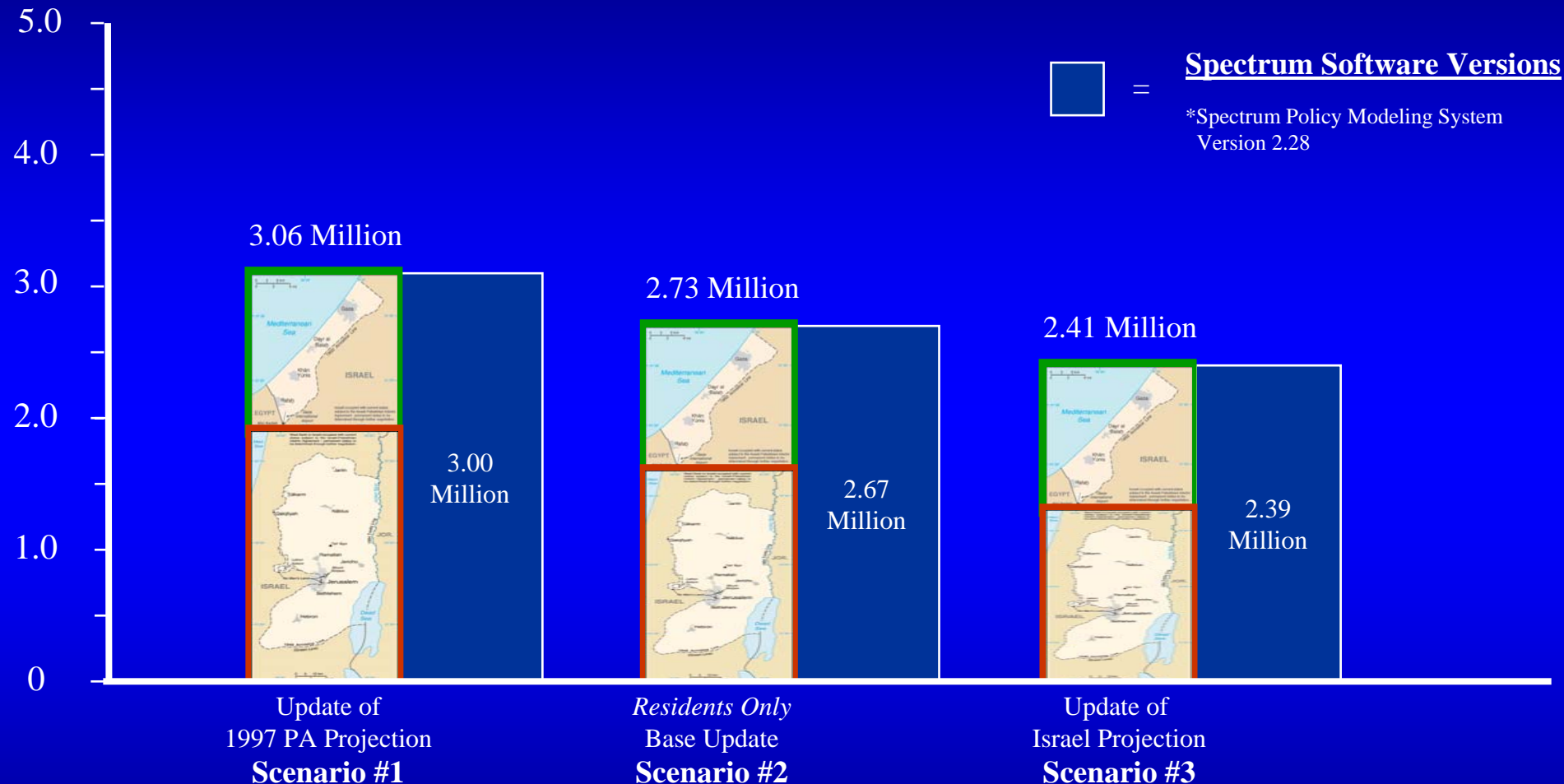
- The Team summarized the differences for each Population Scenario with a modular approach so that researchers can examine the PA Projection factor by factor. Understanding of each element will allow for further refinement of the true population picture in the West Bank and Gaza.

\*Note: None of the scenarios account for internal migration from the West Bank and Gaza into pre-'67 Israel and Jerusalem. This figure, which is the same for all scenarios, will be subtracted as a last step after evaluation of all population scenarios.

# Population Scenarios

## Verification with *Spectrum Demographic Software*\*

Millions of People



- The Team used Spectrum Demographic Software against all three population scenarios to check that there were no errors in our mathematical calculations. All three scenarios were almost exact matches to the same data run with Spectrum.
  - The Base Population Age Groups were the same as used in our original population scenarios/updates.
  - The TFR (Total Fertility Rates) were used verbatim from the PA Ministry of Health's Annual Health Reports
  - Migration statistics used actual border data
- See Appendix F for detailed summary of data inputs and results.

**Arab Population**  
**In the West Bank & Gaza**  
*The Million and a half Person Gap*

**3. Explaining the Differences**

- A Methodological Breakdown
  - What the PA Did
  - What the PA Did NOT Do
- Population Base Counts
- Births
- Deaths
- Immigration/Emigration

# Explaining the Differences A Methodological Breakdown

## What the PA Did

In order to understand how Israel and the PA could arrive at such dramatically different population estimates for the West Bank and Gaza, the Team thought it necessary to break down the elements one by one.

- **Reported Large Jump in Original Population Base:** The 1997 PA Census reported a large upward jump of approximately 300 thousand above figures measured by Israel and by other Palestinian agencies before the Census. The PA expanded the definition for its 1997 population count to include Palestinians *living abroad* as long as they had ID cards to live in the West Bank and Gaza.
- **Applied High Birthrates to Larger Base:** Israel recorded high birthrates for the West Bank and Gaza in the early 1990s at a stable level of between 70 to 80 thousand births per year. (7)(8) When divided by Israel's recorded population base, a high birth rate of between 4 to 5% per annum was recorded. In developing its 1997 Projection, the PCBS applied these high birthrates to its *higher* census base to come up with a dramatic increase in projected births for the West Bank and Gaza. The PCBS cannot have it both ways. When applying an absolute number to a larger base the rate going forward should *go down*.
- **Developed Large Immigration Assumptions:** The PCBS built in large immigration assumptions based on the early period following the Oslo Accords. The forecast assumed that migration would rise to over 50 thousand persons, or 1.5% a year. (2)
- **Included Jerusalem Arabs in Reports:** In addition to the census jump noted above, the PA included 210 thousand Arabs from Jerusalem that were already included in Israel's population survey. This inclusion causes a *double-count* when demographers add Israeli Arabs to population analyses for Israel, the West Bank & Gaza. (4)
- **Retroactively Increased Births from 1990.** Prior to the 1997 Census, the newly created PA Ministry of Health recorded births for 1996, 1997 and 1998. These figures were adjusted upwards by the PA Ministry of Health in later years to match the latest count for youth in the PA Census. The PA Ministry of Health also created birth statistics all the way back to 1990 so that they would match the 1997 PA Census. (5) [Note: It is necessary to read PA MOH Reports from 1996, 1997 & 1998. Reports as of 2001 and 2002 restate earlier figures]

# Explaining the Differences A Methodological Breakdown

## What the PA Did NOT Do

A projection is just that, a projection. Current population data must be backed by the accurate recording of actual growth factors. The PA Central Bureau of Statistics has never acknowledged ample evidence of the following:

- **Lower Actual Birthrates:** First and foremost, the PCBS did not acknowledge that the PA Ministry of Health recorded births lower than than the PA Projection for each year since 1997. The lower birth data was recorded with great detail for both the West Bank and Gaza.
- **Lower Fertility Rates:** The PA Ministry of Health reported a dramatic decline in Total Fertility Rates (births per woman) to levels that are normal for other Middle Eastern societies.
- **Net Emigration Instead of Large Immigration :** The PA has never acknowledged that the West Bank and Gaza have become unattractive to immigrants. This situation undermines a key component of PA growth assumptions, a component that accounted for over 1.5% growth each year in the PA population count. With evidence of net emigration, the growth rates in the West Bank and Gaza are dramatically below levels projected by the PA in 1997. While Israel manages border crossings, these figures for emigration are conservative when matched against 3<sup>rd</sup> part estimates for emigration.
- **Alternative Counts for a Resident Population Base:** Israeli estimates were dramatically lower than Palestinian estimates for the following reason: Israel counted *de facto* residents living in the territories while the PA counted *de jure*, or legal, residents with ID cards allowing them to return to the West Bank and Gaza. The PA does not remove these individuals from its count, even if they have been away for years.
- **Internal Migration from the West Bank and Gaza into Israel:** The PA has never removed individuals from its population surveys who have migrated from the West Bank and Gaza into Israel. These individuals who have obtained Israeli ID cards are double-counted in Israel's population count.

The PA has never adjusted its published estimates of the population in the West Bank and Gaza to any of the above realities. The current population estimates are *exactly* the same as those forecast in 1997, despite a multitude of evidence that the projections did not occur as forecast.

# Understanding Population Base Differences

## PA Announces Upward Adjustment (1996 – Mid-Year 1998)

Millions of People

5.0

4.0

3.0

2.0

1.0

0

From a point in Dec 1996 when Israeli and PA Agencies published similar population figures, the PA added approximately 800 thousand residents to previous estimates.

1.974 Million

2.114 Million

2.270 Million

2.602 Million  
14.6% Increase

2.895 Million  
11.3% Increase

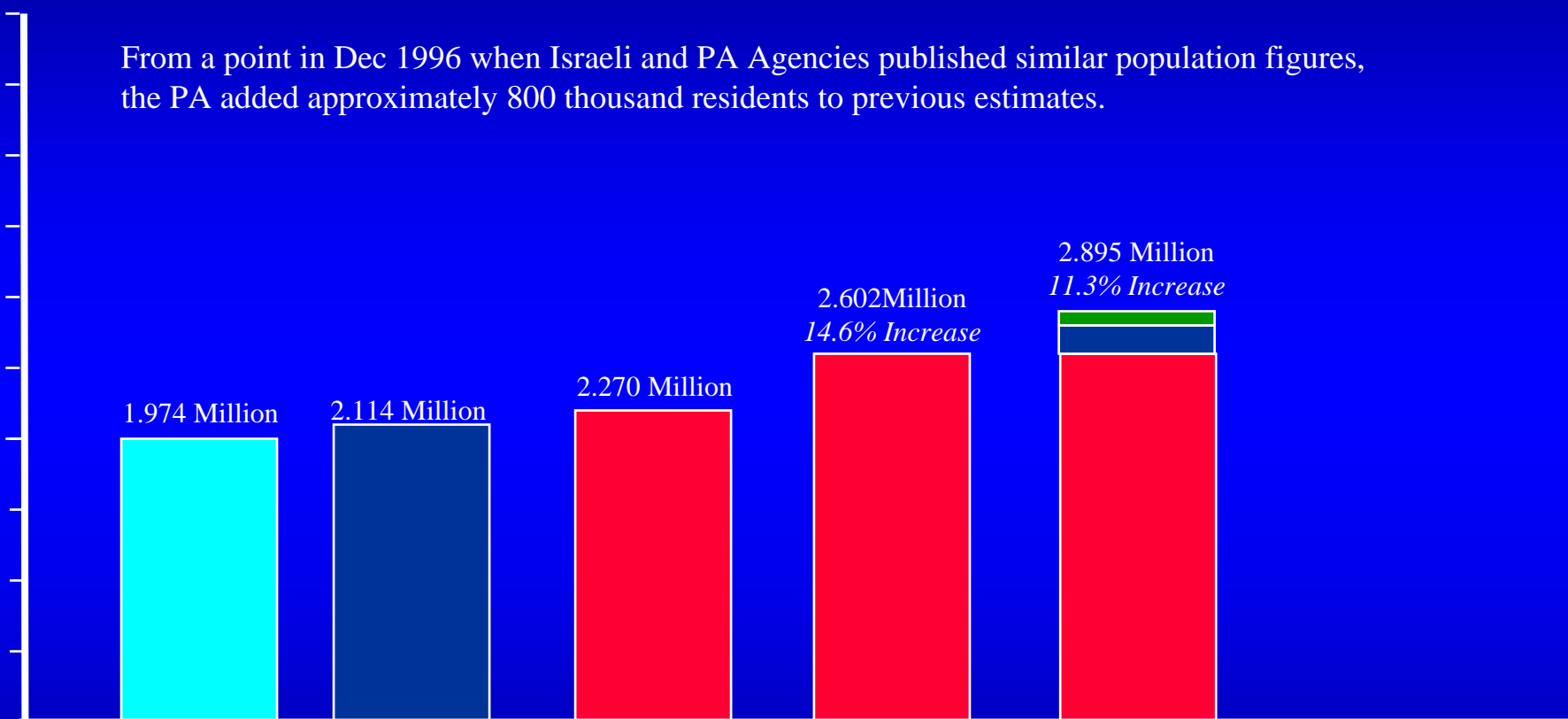
Israel 1990  
Civil Admin  
Projection (11) (12)  
Dec-1996

ICBS Yearbook(7)  
Dec-1996

PA Ministry of  
Health(5)  
Dec-1996

PCBS  
Final Results  
1997 Census (4)  
(released in 1998)  
Dec-1997

PA Central  
Bureau of Statistics  
December 1997 Census (4)  
+ Jerusalem  
+ Mid-Year  
'Post Enumeration'  
Mid-1998



# Understanding Population Base Differences

## PA Announces Upward Adjustment (1996 – Mid-Year 1998)

	<b>Population W.Bank/Gaza (In thousands)</b>	<b>Change (In thousands)</b>	<b>PA Only Change (In thousands)</b>
Israel 1990 Civil Admin Projection for End-1996	1,974		
Israel 1996 Yearbook	2,114	+140	
PA Ministry of Health End-1996	2,270	+156	<b>+156</b>
One Year Growth '96-'97(PA MOH data)	2,351	+ 81	<b>+ 28*</b>
Later Census Adjustment End-1997	2,602	+251	<b>+251</b>
'Post-Enumerated' to Mid-1998	2,685	+ 83	<b>+ 51*</b>
Jerusalem Inclusion	2,895	<u>+210</u>	<u><b>+210</b></u>
		+921	<b>+696</b>

- In a one and a half year period the PA reported a dramatically higher population than previously reported by Israel.
- Of the 921 thousand difference, 696 thousand of this increase can be considered to be a discrepancy between PA and Israeli counts. 210 thousand is from the PA double-count of Jerusalem Arabs and the remainder, 486 thousand, is the result of different understandings of population between Israel and the PA

\* PA portion of growth above Israeli measured growth

# Understanding Population Base Differences

## The Gap Between Israeli and PA Measurement

### Residents or Overseas Palestinians?

How could such a large discrepancy exist between Israeli and PA counts of a relatively small population base?

The counting of Palestinians *living abroad* has been a traditional area of dispute between Israel and Palestinian population estimates, particularly on the West Bank where Palestinians who were formerly Jordanian citizens have greater mobility and links to familial clans on the East Bank.

The PA 1997 Census formally included Palestinians *living abroad* who hold identity cards to live in the area, even if they have been away for years. [see Appendix A] Israel, by contrast, removes such individuals from its population counts when its citizens have been living abroad for over one year.

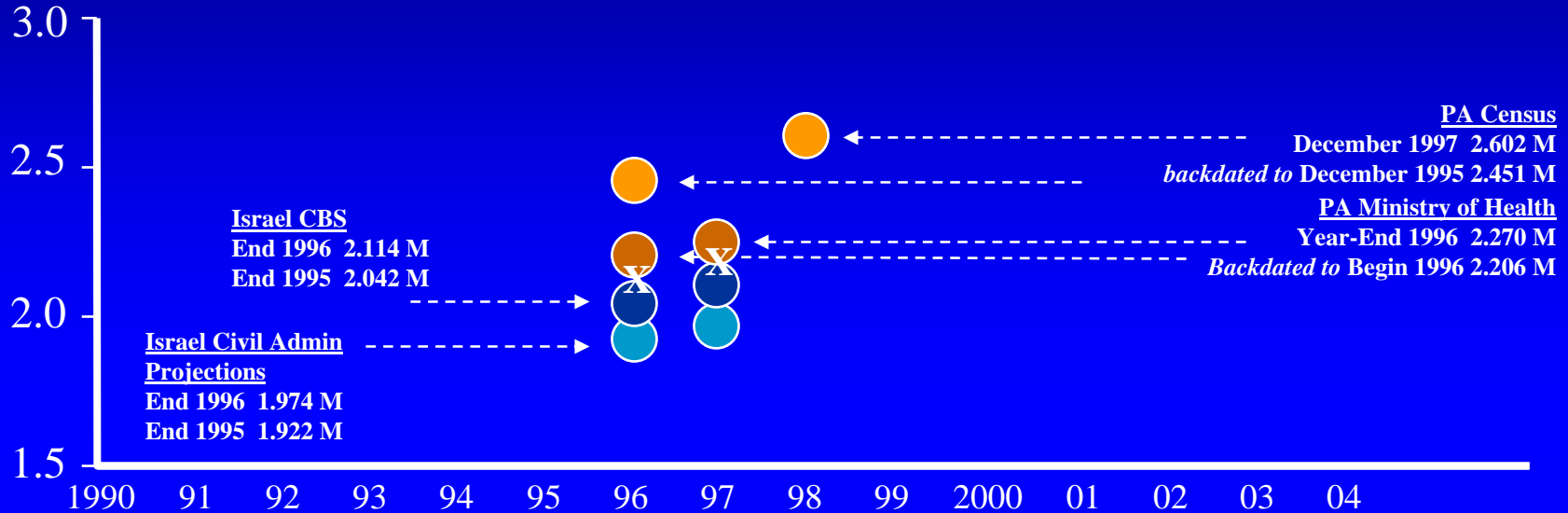
- *In 1989, the Israel Civil Administration counted 904 thousand people resident in the West Bank, excluding 162 thousand (or 15% of the total) who were living abroad.*
- *The gap was even greater according to Palestinian claims. Also in 1989, the Israel Ministry of Interior reported a Palestinian population claim of 1.33 million, a full 400 thousand difference between Israeli measurements and Palestinian claims.*
- *The lower Israeli count was confirmed upon the 1989 issuance of ID cards – a full 32% less than the Palestinian figure. (11)*
- *In its 1987 study of the Gaza population, the Civil Administration noted that 8% of population claims in Gaza, or approximately 50 thousand were for overseas residents and their offspring. (12)*

The issue between Israeli and Palestinian estimates was left open in the mid 1990s as Israel stopped keeping official track of the population for Arab residents in the West Bank & Gaza.

# Understanding Base Population Differences

## Finding a Convergence between Palestinian & Israeli Sources (1995 – 1996)

Millions of People



- The Team found earlier reports from Palestinian agencies such as the PA Ministry of Health with population counts that were not greatly different from the latest Israeli counts. The average between the *highest* Israeli estimates and the *lowest* Palestinian estimates for *residents* in the West Bank and Gaza was as follows:

Average Base Population End 1995 = 2.124 million\*

Average Base Population End 1996 = 2.192 million+

\*Average of ICBS 1995 figure (2.042 million) and PA Ministry of Health 1996 year-end figure backdated with PA data to year-end 1995 (2.206 million) (7) (5) [Appendix C]

+Average of ICBS 1996 figure (2.114 million) and PA Ministry of Health 1996 figure (2.270 million) (7) (5)

# Understanding Base Population Differences 1996 PA Parliamentary Elections Report

## PA Voting Eligibility January 20, 1996

	Eligible Voters	Jerusalem Double Count		Eligible Voters W.Bank/Gaza	Adults %	Youth %	Total Population		
		80,051	40,026				1/2 in Israel	Adults	Youth
<b>West Bank</b>	672,755	80,051	40,026	632,730	48.1%	51.9%	632,730	681,674	1,314,404
<b>Gaza</b>	355,525			355,525	43.1%	56.9%	355,525	468,607	824,132
<b>Total PA</b>	1,028,280			988,255			988,255	1,150,282	2,138,536
							46.2%	53.8%	100%

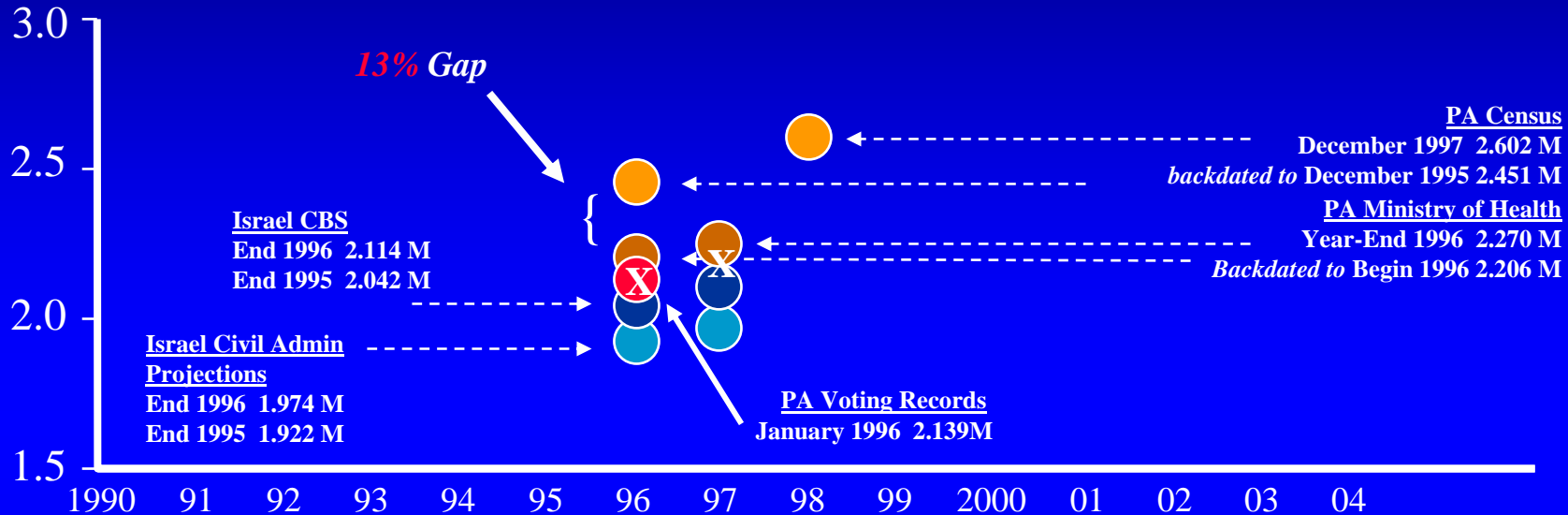
- The internationally supervised PA elections on January 29, 1996 offered a rare opportunity to determine if Palestinian accounts of its adult population matched population figures counted by Israel
  - Using data issued from the PA Central Elections Commission, we were able to confirm the number of adults in the West Bank and Gaza in early 1996. (13) After removing voters/adults who were living in Israeli controlled section of Jerusalem, we calculated an adult population of 988 thousand.
  - Applying population age breakdowns from the PA Ministry of Health and from the 1997 PA Census backdated to 1996 [See Appendix C] we were able to calculate the base population at 2.139million for January 1996.
  - *Note: These population breakdowns, which estimated the youth population at 52% for the West Bank and 57% for Gaza were dramatically younger counts than similar population measurements by UNRWA for refugee populations in the West Bank and Gaza. If the UNRWA was used, the population in 1996 would have been dramatically lower. UNRWA estimated youth population for the West Bank as 38% and for Gaza as 49% in June 2002. [See Appendix D]*
- The voting data supports a population count that is 300 thousand less (or **13% less**) than PA December 1997 Census backdated two year to December 1995

**Base Population Begin 1996= 2.139 Million**

# Understanding Base Population Differences

## The 13% Gap Between *Residents Only* Base & PA Census Base (1995 – 1996)

Millions of People



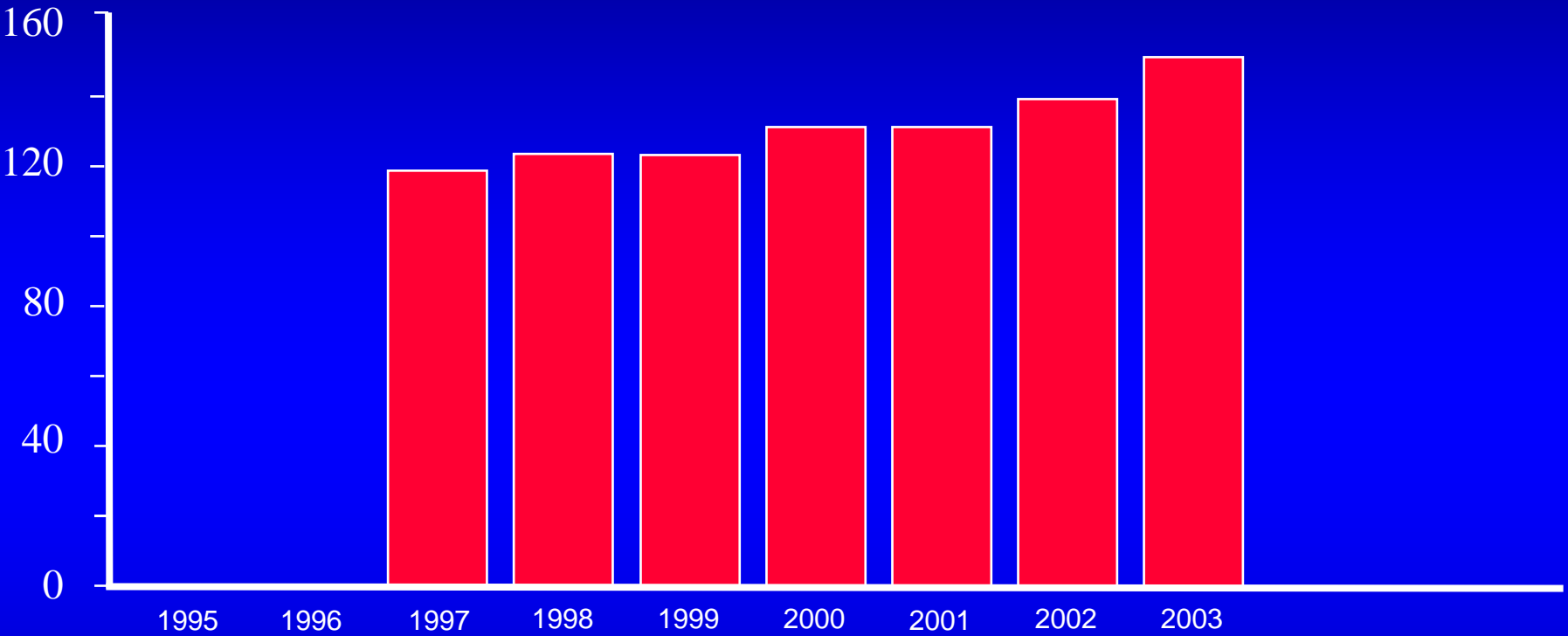
- Israel counted *de facto* residents living in the territories while the PA counted *de jure*, or legal, residents with ID cards allowing them to return to the West Bank and Gaza. The PA currently does not remove these individuals from its count, even if they have been away for years.
- Prior to the Census, the PA and Israeli average for residents in the West Bank was 2.12 million is approximately 300 thousand, or **13% less**, than the level reported from the PA Census of 1997
  - The PA Voting Records for January 1996 allowed us to calculate a total Population Base of 2.139 million
  - In September 1993, the World Bank published a report in which it measured the number of Palestinians living abroad (with IDs for the West Bank and Gaza) at 300 – 350 thousand.
  - In October 2004, the PA Central Election Commission Voting Report confirmed the number of Palestinians living abroad at exactly **13%**
- The **13%** gap appeared, *again and again*, in discrepancies between Israeli and Palestinian counts. Therefore, by removing it we conclude that the accurate figure for a *residents only* population base in 1996 is 2.12 million.

# Explaining the Differences

## Births/Year

(PA 1997 Projection)

Thousands  
of Births/Year



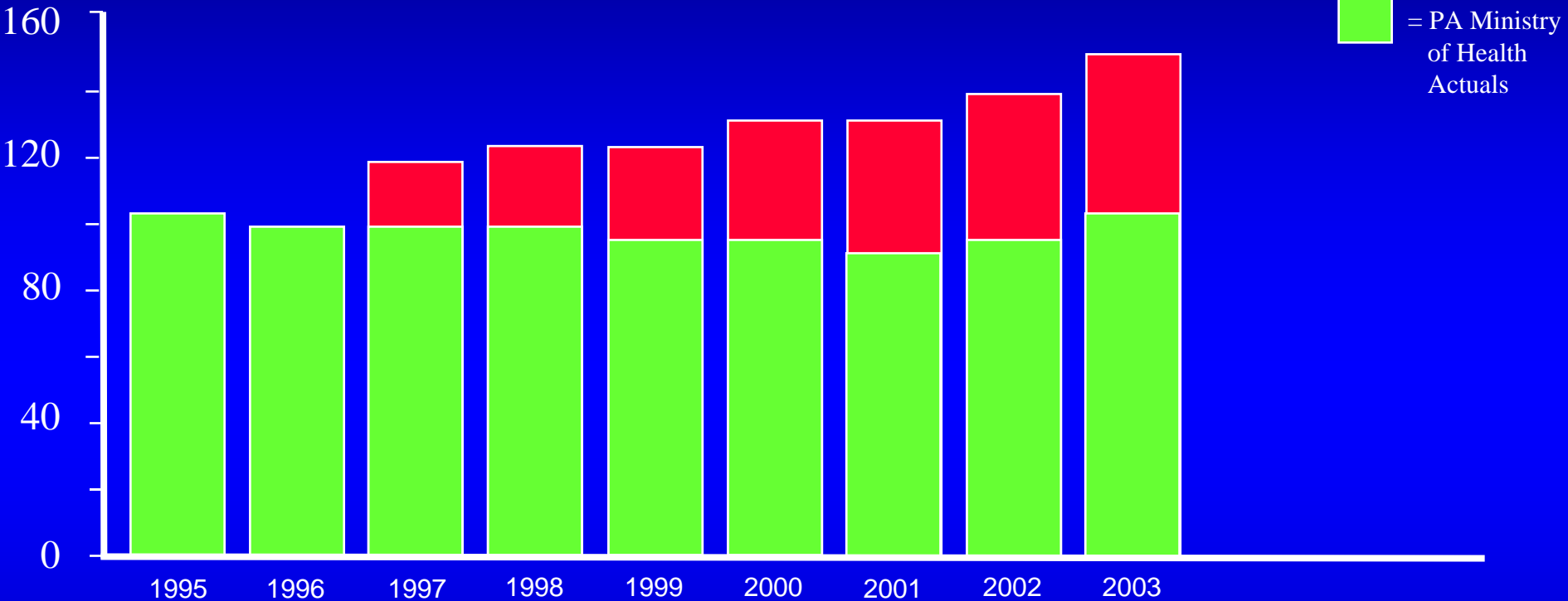
# Explaining the Differences

## Births/Year

(PA 1997 Projection

vs. Actual Births *reported* by PA Ministry of Health)

Thousands  
of Births/Year



- The actual number of births, as compiled by the Palestinian Ministry of Health, is dramatically lower than the number used in the 1997 PA Projection

# Explaining the Differences

## PA Ministry of Health Births vs. Israel Recorded Births

The Team noted that Israel's recorded birth statistics for the West Bank and Gaza were significantly lower than birth statistics *retroactively* reported by the PA Ministry of Health *after* the completion of the 1997 PA Census. *Israel's recorded births were 32% less for the West Bank and 10% less for Gaza.* (5) (7)

Israel Recorded Births vs. PA Ministry of Health 'Backdated' Births						
	1990	1991	1992	1993	Total	
PA MOH West Bank Births	56,244	58,992	58,719	61,688	235,643	100%
Israel Civil Admin West Bank Births	35,500	40,759	40,270	42,663	159,192	68%
PA MOH Gaza Births	38,820	41,182	41,466	43,120	164,588	100%
Israel Civil Admin Gaza Births	34,286	37,018	37,599	39,436	148,339	90%

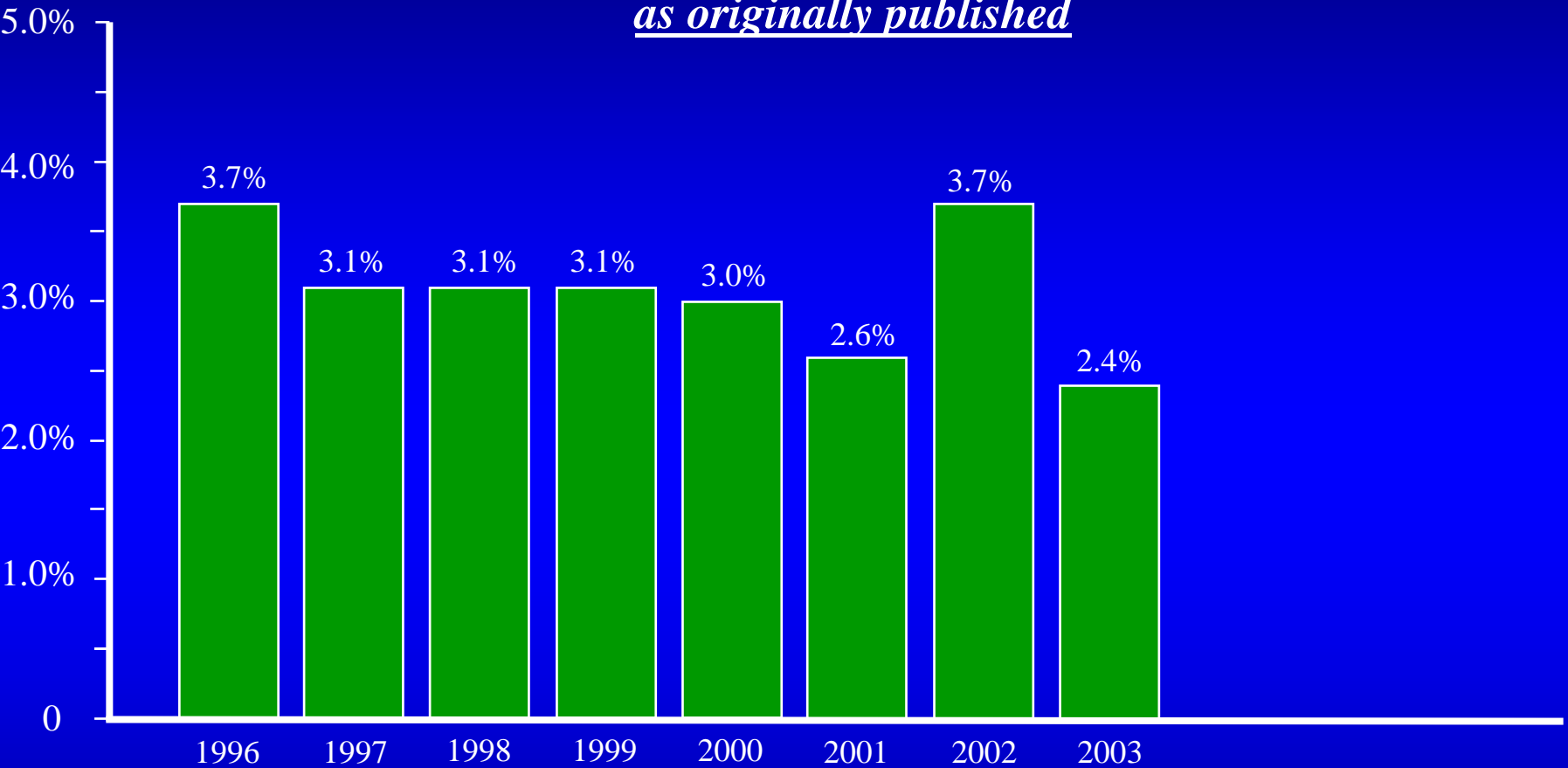
The PA Ministry of Health's *backdated* figures for births were *also* higher than its own earlier recording of births in 1996 - 1998

PA Ministry of Health Births aligned with Israel Recorded Births						
	1996	1997	1998	Total		
PA MOH West Bank Births	60,664	56,913	58,780	176,357	100%	
PA MOH West Bank Births as originally reported	52,863	46,882	51,648	151,393	86%	
PA MOH Gaza Births	40,389	39,352	38,953	118,694	100%	
PA MOH Gaza Births as originally reported	38,170	37,527	37,060	112,757	95%	

It appears that the PA changed its birth figures, *after the fact*, in order to justify the count published in its 1997 Census. The PA could not justify a higher base count if the births in prior years did not add up to a higher population count. Hence there was a need to restate higher births. As the PA reports 89% of births in hospitals it is unlikely that such a great number of births could have been missed on the first round. (5) [Note: It is necessary to read PA MOH Reports from 1996, 1997 & 1998. Reports as of 2001 and 2002 restate earlier figures]

**Explaining the Differences**  
**PA Ministry of Health Statistics**  
**(Natural Growth Rates)**  
**as originally published**

Natural Growth Rates

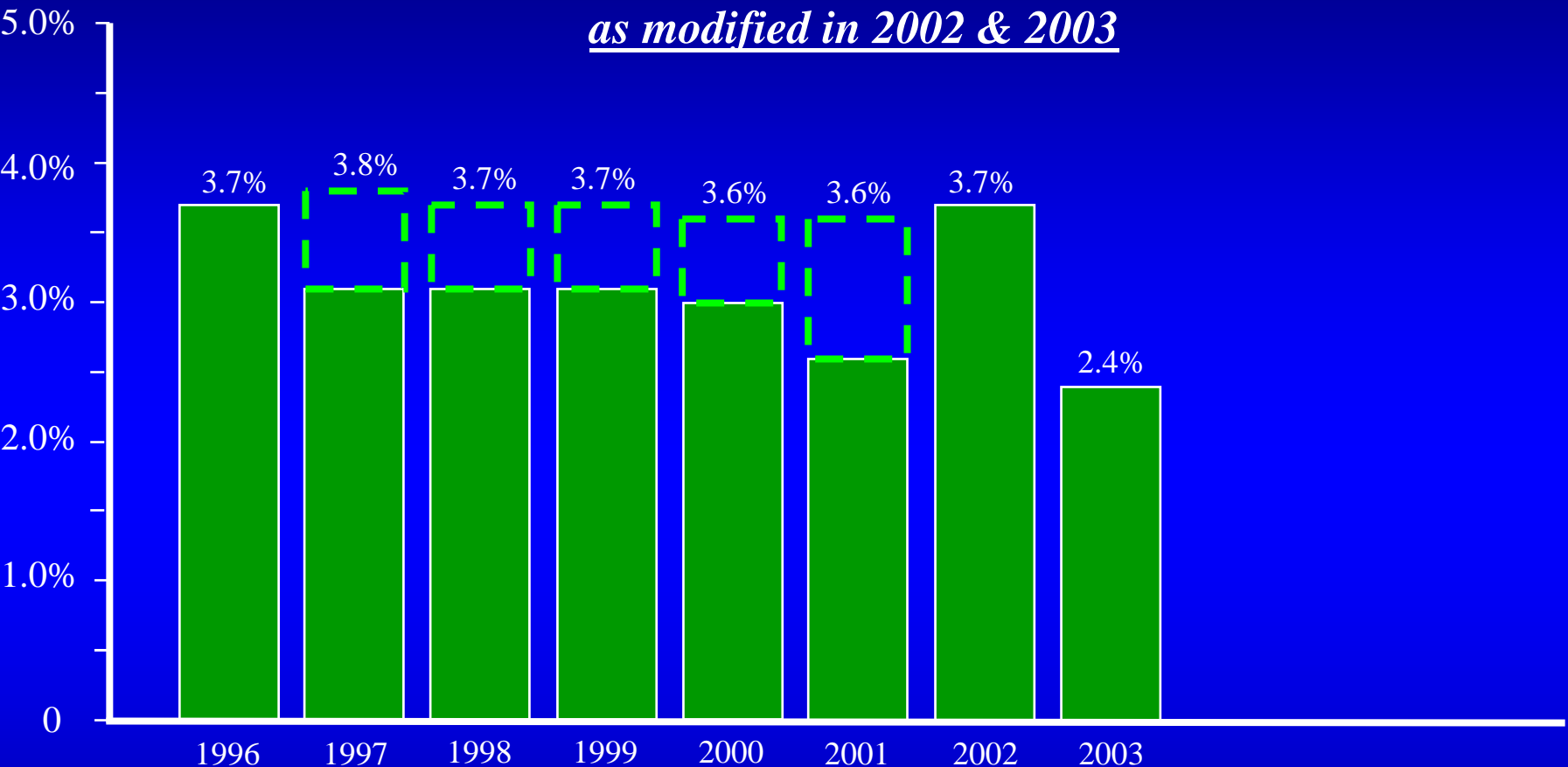


- The PA Ministry of Health also published *each year* a figure for natural growth rate (Birth Rate less Death Rate) for the West Bank and Gaza. (5)

# Explaining the Differences

## PA Ministry of Health Statistics (Natural Growth Rates) as modified in 2002 & 2003

Natural Growth Rate



- In 2002, the PA Ministry of Health *retroactively* increased its growth rate assumptions. The adjustments increased the previously released growth rates to match the natural growth assumptions contained in the original PA Projection. The Team questions whether the PA Ministry of Health was pressured to adjust its data to fit the 1997 Census & Projection. [Note: It is necessary to read PA MOH Reports from 1996, 1997 & 1998. Reports as of 2001 and 2002 restate earlier figures]
- In 2003, the PA Ministry of Health reported that natural growth rates had fallen to 2.4% for the West Bank and Gaza.

# Explaining the Differences

## PA Ministry of Health Births vs. Israel Recorded Births

Given a pattern of retroactive restatement from PA agencies, the Team thought it necessary to fully consider the birthrates observed and corroborated by Israel during its Administration of the West Bank and Gaza. (7)(8)(11)(12)

As stated previously, Israel's recorded births were *32% less* for the West Bank and *10% less* for Gaza.

The Team adjusted the PA's birth data to align it with earlier birth data recorded by Israel

PA Ministry of Health Births aligned with Israel Recorded Births: 32% less for West Bank and 10% less for Gaza										
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
PA MOH West Bank Births	61,617	60,920	60,664	56,913	58,780	56,448	54,349	53,986	52,670	59,421
Adjusted Births for West Bank	41,626	41,155	40,982	38,448	39,710	38,134	36,716	36,471	35,582	40,143
PA MOH Gaza Births	43,067	42,593	40,389	39,352	38,953	37,810	38,169	38,497	41,736	42,226
Adjusted Births for Gaza	38,815	38,388	36,402	35,467	35,107	34,077	34,401	34,696	37,616	38,057

These adjusted birth figures became one of the key components for Scenario #3, an Update of Israel's Projection from 1990 using Israel's methodology.

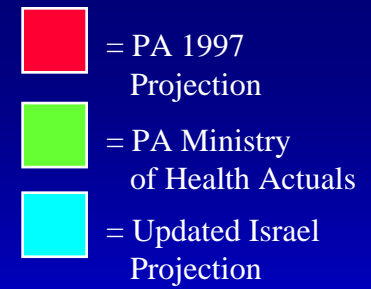
### Verification with Spectrum Demographic Software

When the team applied TFR (Total Fertility Rate) statistics from the PA Ministry of Health (5) to this scenario the number of births produced by the Spectrum Demographic Software were *lower* than the birth figures we used in Scenario #3. (Please see Appendix F)

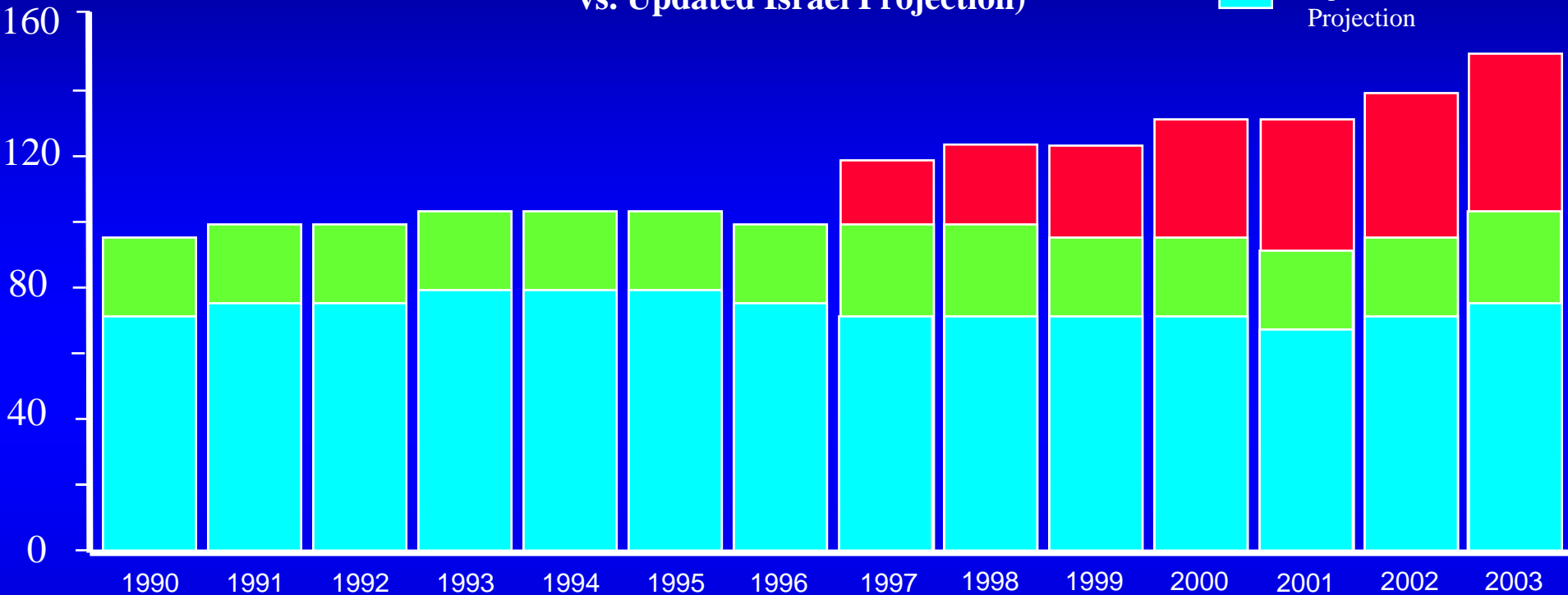
# Explaining the Differences

## Births/Year

(PA 1997 Projection  
vs. Actual Births Reported by PA Ministry of Health  
vs. Updated Israel Projection)



Thousands  
of Births/Year



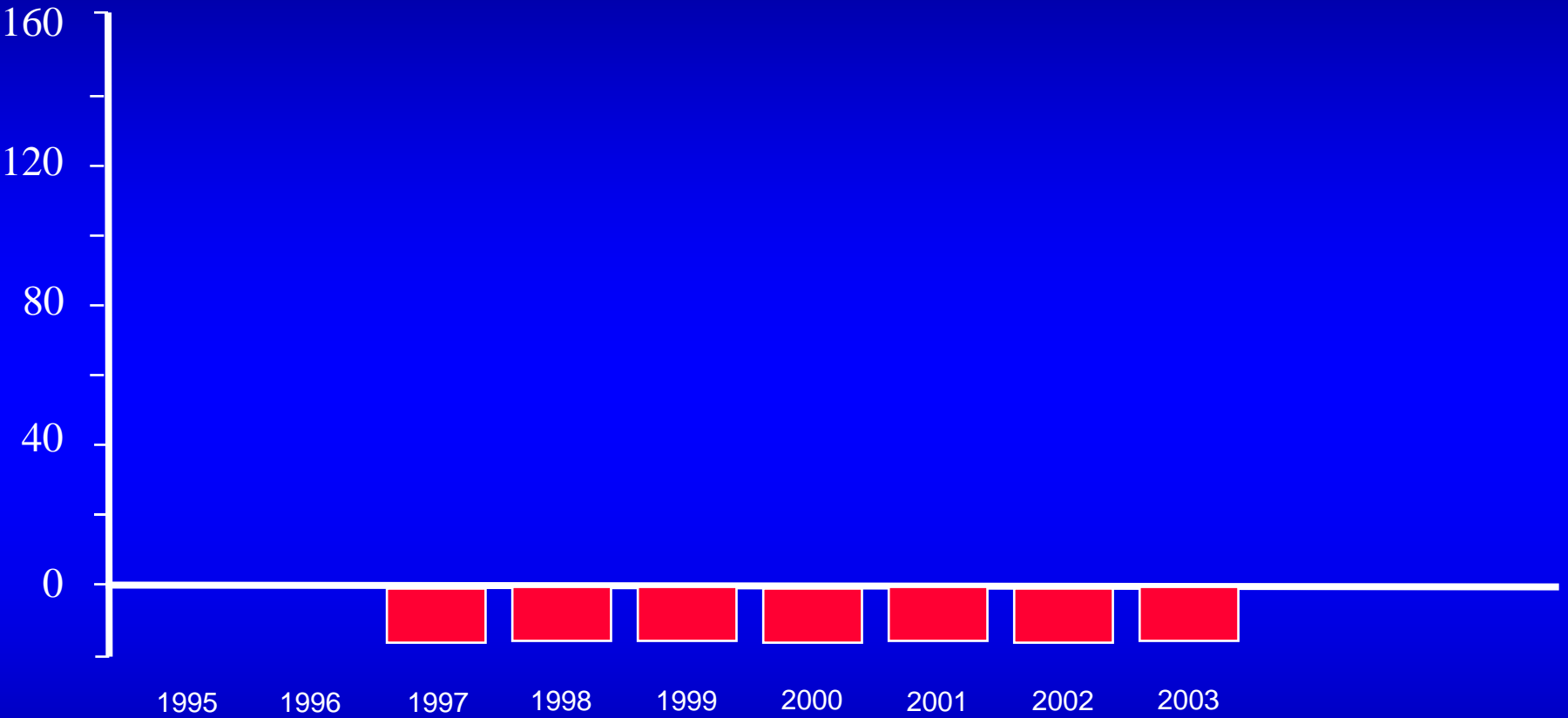
- The births reported by the PA Ministry of Health were significantly less than the figures used in the 1997 PA Projection.
- The PA Ministry of Health's back-reported births were significantly higher than births recorded by Israel between 1990 and 1993. We applied this difference to align 1994 – 2003 PA births to previous data

# Explaining the Differences

## Deaths/Year

(PA 1997 Projection)

Thousands  
of Deaths/Year



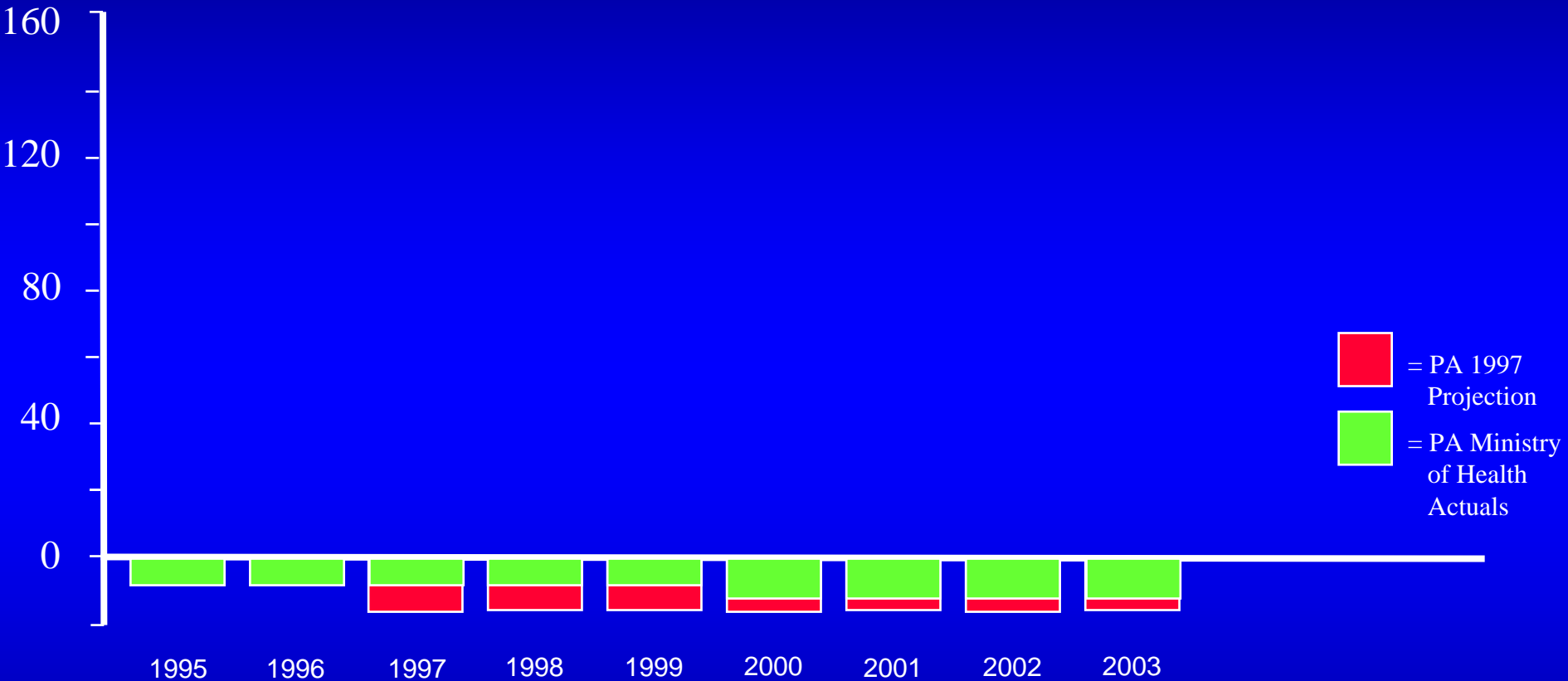
# Explaining the Differences

## Deaths/Year

(PA 1997 Projection

vs. Actual Deaths *reported by PA* )

Thousands  
of Deaths/Year



- The actual number of deaths, as compiled by the Palestinian Ministry of Health, is slightly lower than the number used in the 1997 Palestinian Projection. This reported figure helps to increase the population count (2) (5)
- To be consistent, our scenarios use the PA Ministry of Health data. (5)

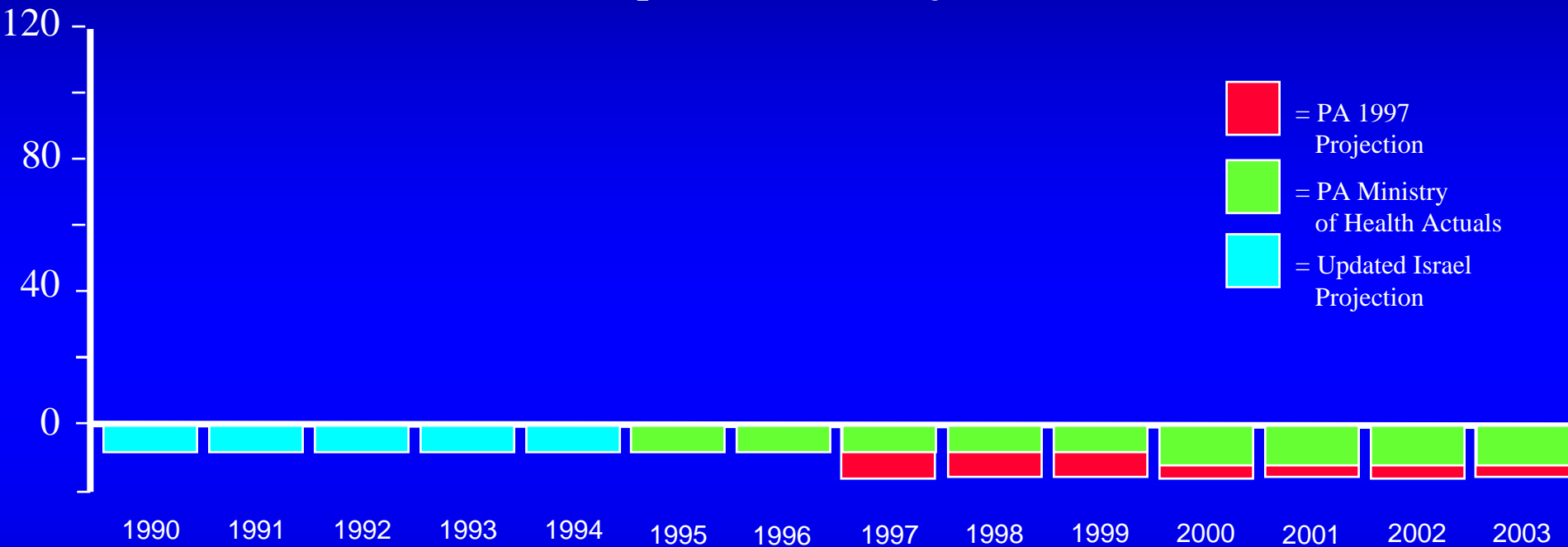
# Explaining the Differences

## Deaths/Year

(PA 1997 Projection

vs. Actual Deaths *reported* by PA  
vs. Updated Israel Projection)

Thousands  
of Deaths/Year

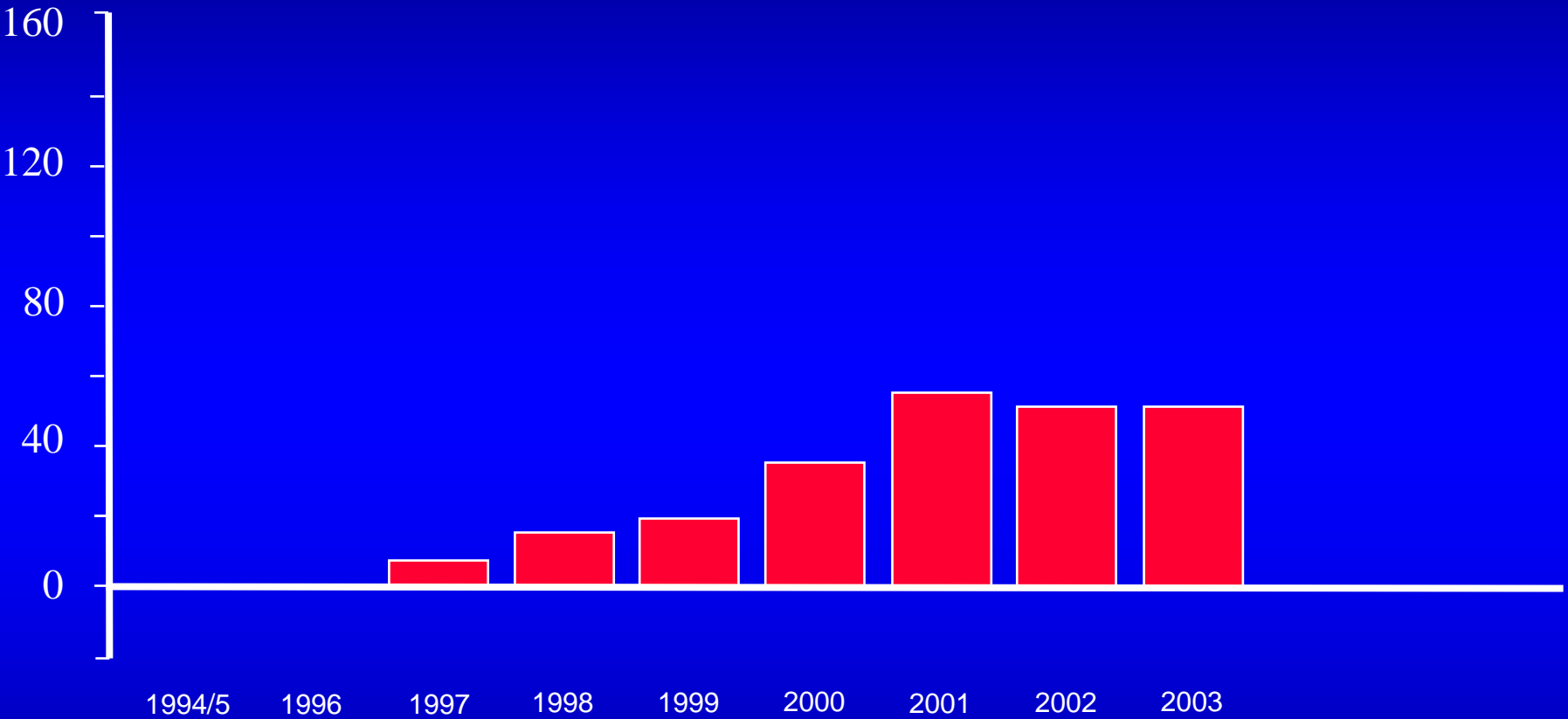


- The actual number of deaths, as compiled by the PA Ministry of Health, was slightly lower than the number used in the 1997 PA Projection. This reported figure helps to increase the population count. To be consistent, our scenarios use the PA Ministry of Health data. (2) (5)
- One of the concerns by Israeli demographers was that Palestinian Arabs often did not report deaths to authorities:
  - *"Death reporting in Judea, Samaria and Gaza is incomplete...mostly as far as infants and post-65 women...It is impossible to provide a statistical projection of death patterns in Judea, Samaria and Gaza."* [ICBS, June 10, 1993] (6)
  - *"If one accepts the reports for Palestinian deaths at face value the Palestinians have a higher life expectancy than in the United States of America."* [ICBS, June 10, 1993] (6)
- As births and migration were more dominant factors, the study of death rates was deferred to a later study

# Explaining the Differences

## Immigration/Year (PA 1997 Projection)

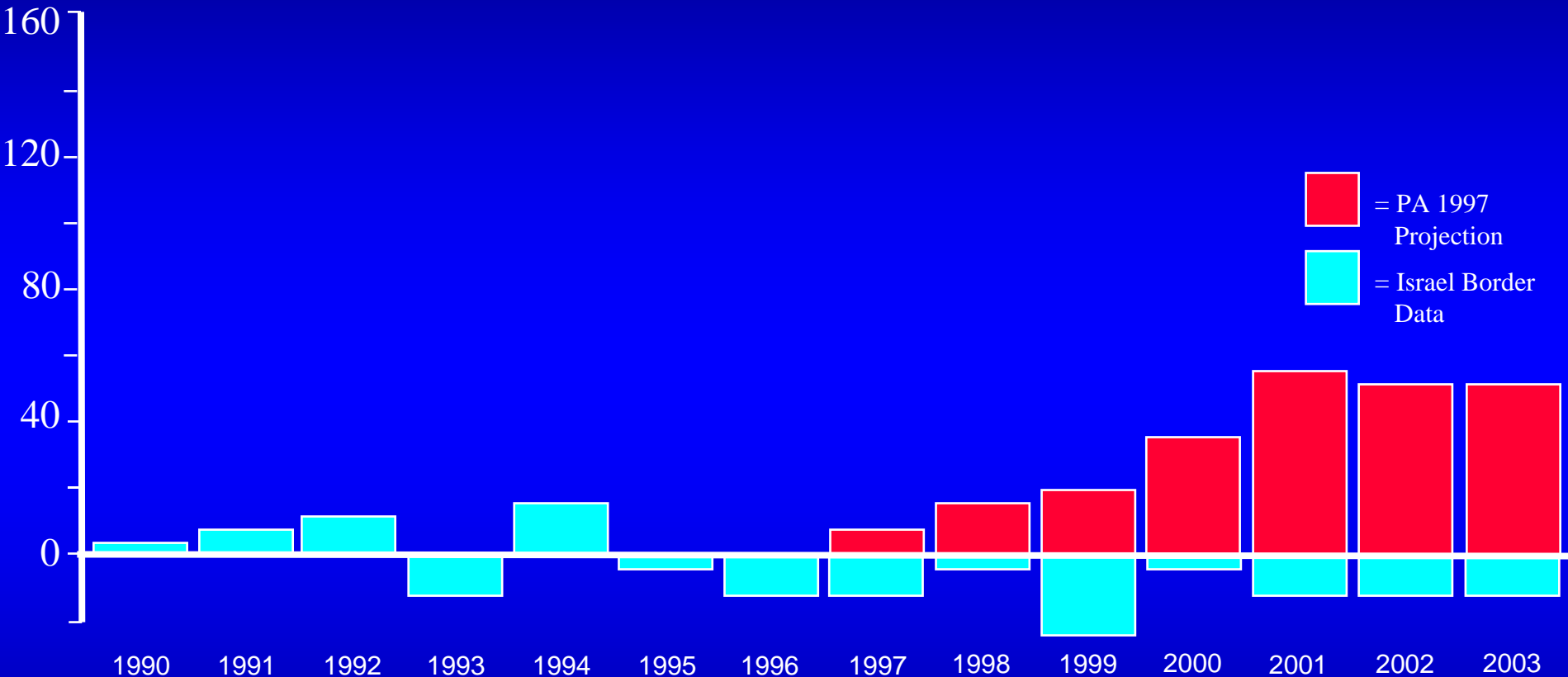
Net Entries(Exits)  
In Thousands/Year



- The PA 1997 Projection included a large assumption of immigration into the West Bank and Gaza. (2)

# Explaining the Differences Immigration & Emigration/Year (PA 1997 Projection vs. Actual Israel Border Data)

Net Entries(Exits)  
In Thousands/Year



- The PA 1997 Projection included a large assumption of immigration into the West Bank and Gaza.
- Actual entry/exit data from Israel borders, including registration of immigrants, show that in most years there was a consistent net emigration. There were some years of modest immigration (net +25 thousand) after the Gulf War of 1990 and a one year positive balance when the PA leadership 1994 entered the area. After this, all new immigrants were counterbalanced by a greater number of emigrants. (6)

# Explaining the Differences

## Immigration & Emigration/Year

- The Oslo Accords kept Israel in charge of borders to and from the West Bank and Gaza. Accordingly, we used data from Israel's Ministry of Interior to compute immigration and emigration statistics each year. (6)
- Some may claim that Israel's Border data is not impartial. However, since the PA territories were under great tension due to the hostilities in the region after September 2000, and despite the Team's belief that this data is the most accurate picture of immigration and emigration into and out of the territories, we found independent media reports that confirm the emigration phenomenon among Palestinians Arabs. Many of these media reports, including some from agencies known to be highly critical of Israel, point out much higher figures for Arab emigration from the West Bank and Gaza.
- Israel's border records show approximately 10 thousand Arabs leaving the country each year from the West Bank and Gaza. These statistics might understate actual emigration:
  - *According to the Norwegian demographic research institute, FAFO, the total net negative migration from the West Bank and Gaza from September 2000 to December 2002 was 100 thousand people, mostly consisting of middle-class families, PA employees, and Christians.* (14)
  - *"Approximately 80,000 Palestinians have left the West Bank and Gaza Strip since the beginning of the year, a rise of 50 percent compared to last year, a senior Palestinian Authority official said yesterday. The official, who asked not to be named, told The Jerusalem Post another 50,000 Palestinians are now trying to leave through the Jordan River bridges and the Rafah border crossing.*  
-- *Khaled Abu Toameh, Jerusalem Post, Aug 27, 2002* (15)
- Since the end of the Gulf War in 1990 there had been no great influx of returning residents to the West Bank and Gaza. Only 25 thousand immigrants were returning Palestinians were recorded from 1990 through 1992. We noted that, according to UN data, that Jordan absorbed a tremendous inflow of returning Palestinians to the Kingdom after 1990 (16)
- There is no serious dispute that the West Bank and Gaza have become unattractive to immigrants since the hostilities of September 2000. And yet the PA Central Bureau of Statistics continues to issue population reports confirming its immigration assumptions of 1.5% per year that were used in the original 1997 PA Projection. (4)

**Arab Population**  
**In the West Bank & Gaza**  
*The Million and a half Person Gap*

## **4. Corroboration of Population Scenarios**

- October 2004 PA Central Election Commission Voting Report
- Israel Central Bureau of Statistics Growth Scenarios (1984 – 2002)
- Alternative Growth Rate Comparisons
- Team generated a *Trend Impact Analysis (TIA)* to test our growth scenarios.
- Jordanian Growth as Base Line for West Bank
- PA's Current Population Claims Compared Against Israeli Population Centers

# Base Population Corroboration

## PA October 2004 Central Election Commission Report

- The CEC Press Release of October 14, 2004 [see Appendix B] reported that nearly one million voters, or 67%, out of an eligible 1.5 million voters (adults 18 and above) were registered for the upcoming municipal elections. The release went on to say that of the 1.5 million adults eligible to vote, fully 200 thousand, *or 13% of total adults*, were adult Palestinians *living abroad*. Thus, the release confirms 1.3 million adult *residents living* in the West Bank and Gaza as of October 2004.
- The release gave the Team an opportunity to test population base claims made by various PA agencies for accuracy. The Team searched for population age breakdowns ('population pyramids') to determine if the "population bulge" measured in earlier years would indeed come of age in 2004. In other words, the number of 18 year-olds in 2004 should approximate the number of 10 year-olds eight years earlier in 1996 adjusted for deaths and migration.
- The Team tested the following population age breakdowns [Appendix C]
  - *Year End 2003 PCBS Population Pyramid moved forward 1 year (similar to 1997 PA Projection)*
  - *Year End 1997 PA Census moved forward 7 years with actual data (similar to Scenario #1)*
  - *Year End 1996 PA Ministry of Health Population Pyramid moved forward 8 years (similar to Scenario #2)*
  - *Year End 1989 ICBS Population Pyramid moved forward 15 years (similar to Scenario #3)*

[Subsequent to the October 14, 2004 Press Release, the head of the PA Central Elections Commission Mr. Ali Jarbawi resigned his position. The Team notes that the PA has now revised the eligible voter base to include Jerusalem residents in the vote for the upcoming Palestinian Presidential elections. The original October 2004 release, which was quite specific about the residents in the West Bank and Gaza only and quite explicit about the number of Palestinians living abroad, has been removed from some sections of the PA CEC website. *Fortunately we have the original release as well as independent media reports with detailed information from this release. We have included the original release in its entirety in Appendix B of this report.*]

- We use the original release and offer this media account of the controversy:

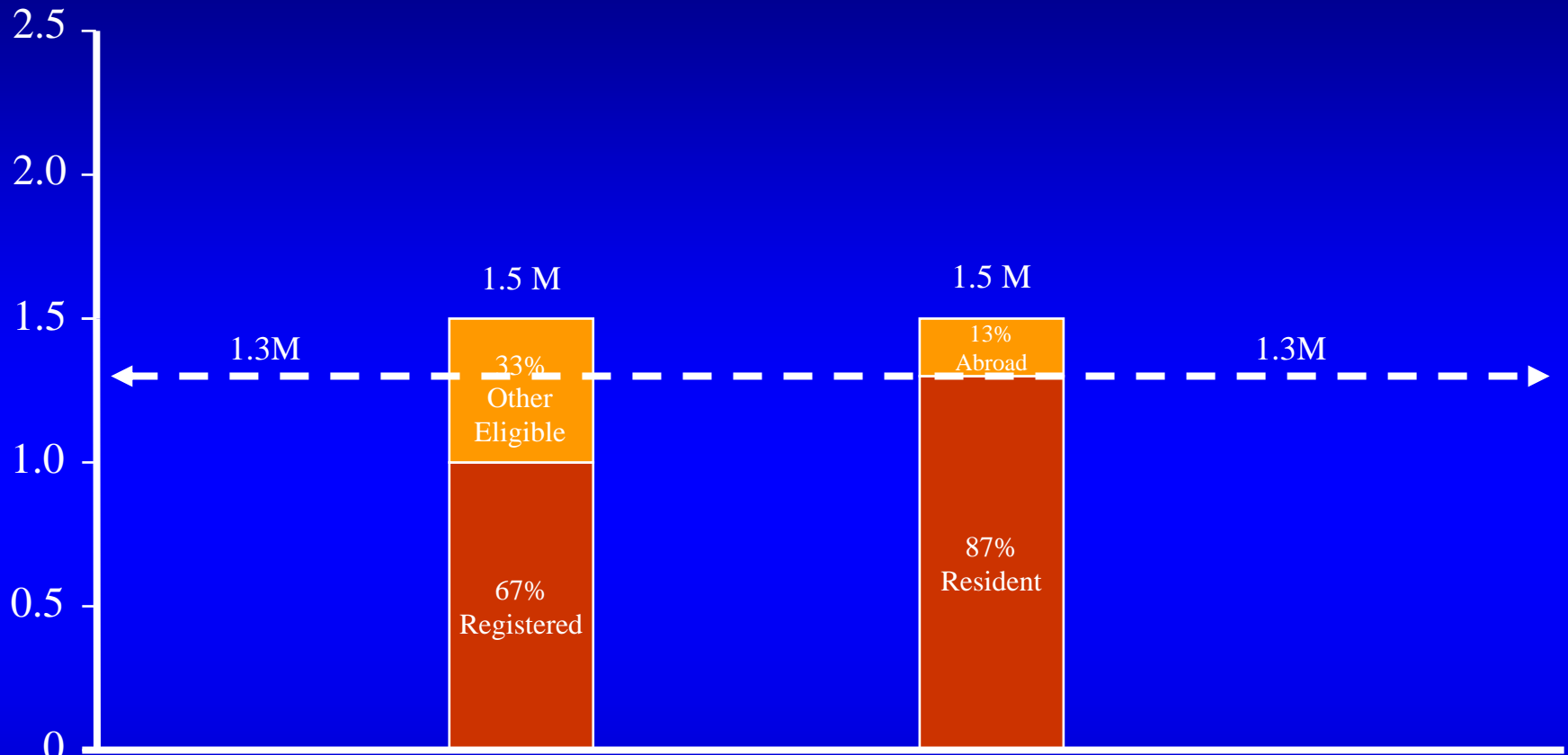
*"The chairman of the Palestinian Central Elections Committee, Ali Jarbawi, announced his resignation on Tuesday amid reports he was unhappy with the intervention of the Palestinian Authority in the campaign to register voters, which ended last week. Jarbawi explained his sudden resignation by saying he wanted to take a recess after the voter registration drive. About 67 percent of eligible voters registered during the eight-week campaign. However, two Palestinian legislators told The Jerusalem Post that Jarbawi's decision to quit came as a protest against the PA leadership's interference with the work of the Central Elections Committee. One legislator said the resignation raises serious questions about the integrity of the voter registration and the entire election. 'This shows that there are some senior PA officials who are trying to tamper with the elections,' he said.*

-- Khaled Abu-Toameh, October 20 2004, Jerusalem Post (17)

# Base Population Corroboration

## PA October 2004 Central Election Commission Report

Millions of People



Indicated the following:

- 1 Million Registered
- 1.5 Million Eligible Voters 18 & Above

Indicated the following:

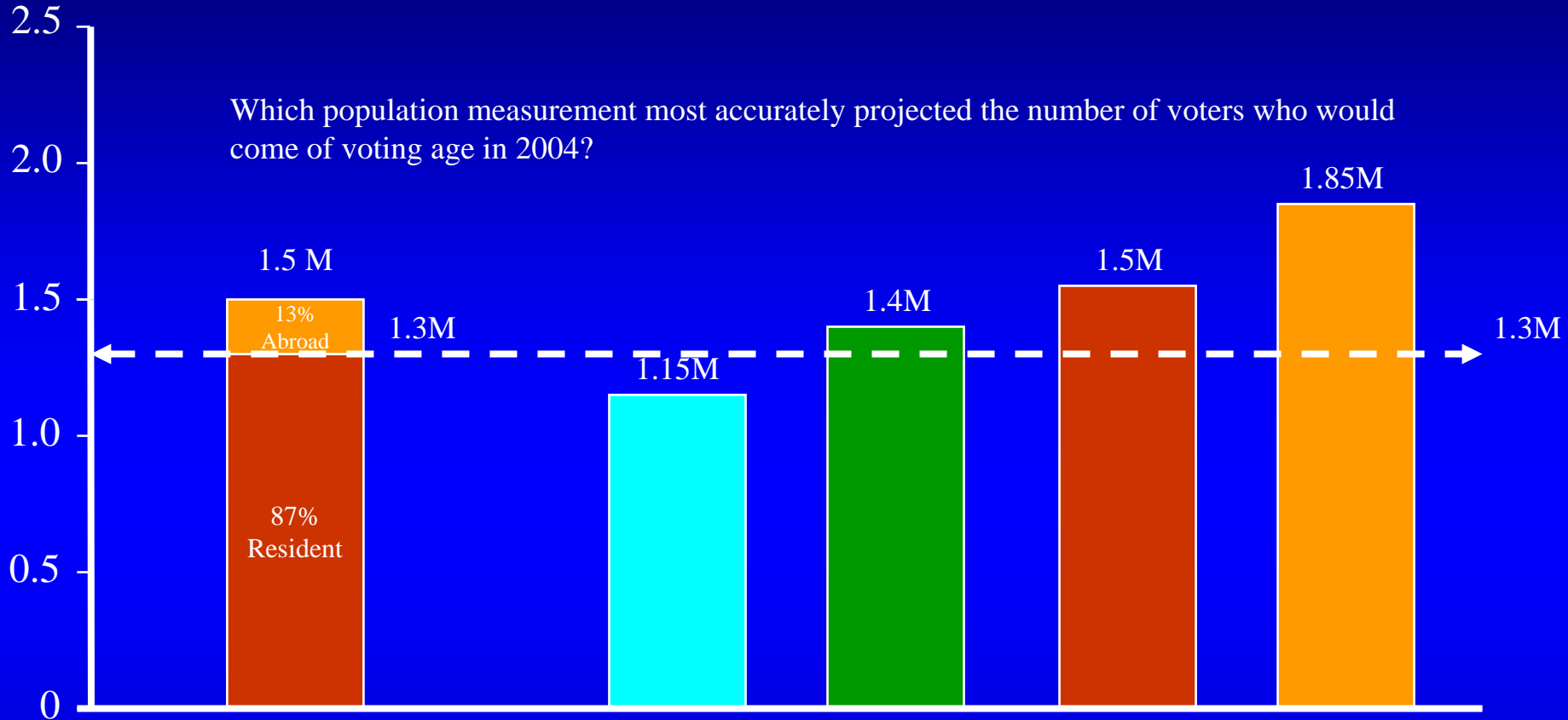
- 1.3 Million Eligible Voters *Resident* in Territories
- 200K Eligible Voters *Living Abroad*

• The PA Election report indicated there are 1.3 million adult *residents* in the West Bank and Gaza as of October 2004

# Base Population Corroboration

## PA October 2004 Central Election Commission Report

Millions of People



**PA October 2004 Voting Report (10)**

- 1.3 Million Eligible Voters *Resident* in Territories
- 200K Eligible Voters *Living Abroad*

**ICBS 1989 Base (8)**

(Scenario #3)  
+ 15 Years

**PA Ministry Health**

**1996 Base (5)**  
(Scenario #2)  
+ 8 Years

**Update of 1997**

**PA Census (18)**  
(Scenario #1)  
+ 8 Years

**PCBS 2003**

**Original Projection (4)**  
+ 1 Year

The October 2004 Voting Report [Appendix B] disqualified the original 1997 PA Projection, confirmed that the 1997 Census Base included Palestinians *living abroad* and demonstrated that Scenarios #2 and #3 are the only possible estimates compatible with current voter rolls in the West Bank and Gaza.

Note: Israel Base increased by Israel recorded Births & Deaths, as in Scenario #3.

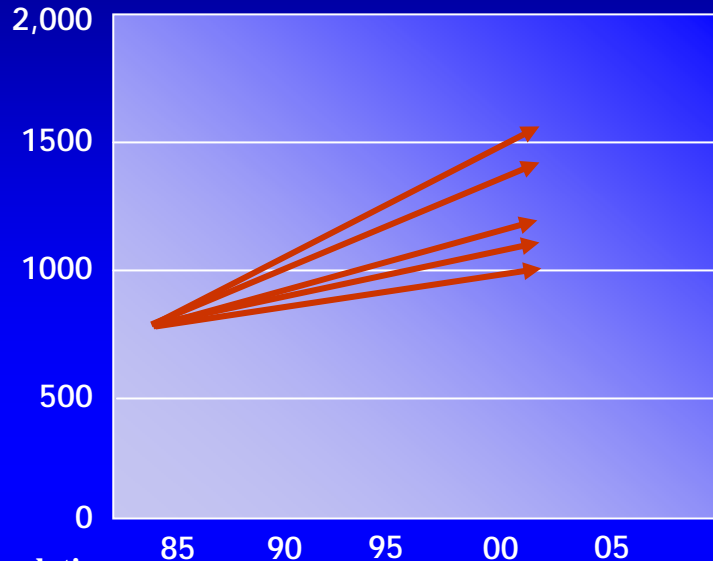
All PA Scenarios increased by PA Ministry of Health Births & Deaths. [See Appendix C for calculations]

# Corroboration of Population Scenarios

Israel Central Bureau of Statistics Projections\*

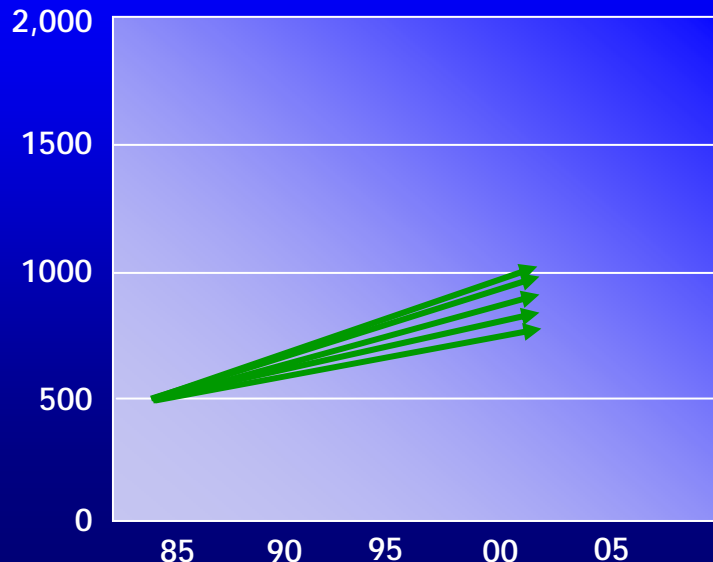
(1984 – 2002)

Population In Thousands **West Bank Population**



	<u>1984</u>	<u>2002</u>	<u>Pop Growth Rate</u>	<u>Total Fertility Rate</u>	<u>Net Migration/Thousand</u>
• 1 <sup>st</sup> Projection	783K	1,061K	1.7%	3.75	-10
• 2 <sup>nd</sup> Projection	783K	1,136K	2.1%	5.00	-10
• 3 <sup>rd</sup> Projection	783K	1,211K	2.4%	5.00	-8
• 4 <sup>th</sup> Projection	783K	1,430K	3.4%	5.00	0
• 5 <sup>th</sup> Projection	783K	1,550K	3.9%	6.50	0

Population In Thousands **Gaza Population**



	<u>1984</u>	<u>2002</u>	<u>Pop Growth Rate</u>	<u>Total Fertility Rate</u>	<u>Net Migration/Thousand</u>
• 1 <sup>st</sup> Projection	510K	741K	2.1%	4.45	-10
• 2 <sup>nd</sup> Projection	510K	789K	2.5%	5.70	-10
• 3 <sup>rd</sup> Projection	510K	865K	3.0%	5.70	-6.5
• 4 <sup>th</sup> Projection	510K	992K	3.8%	5.70	0
• 5 <sup>th</sup> Projection	510K	1,070K	4.2%	7.20	0

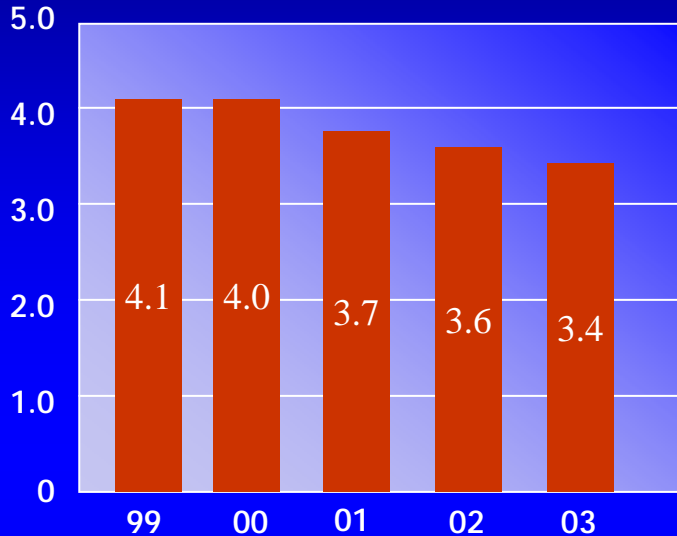
\*Projections based on different assumptions for Fertility Rates and Net Migration

# Corroboration of Population Scenarios

## Total Fertility Rate (TFR) Trends

Total Fertility Rates/  
Woman

### West Bank

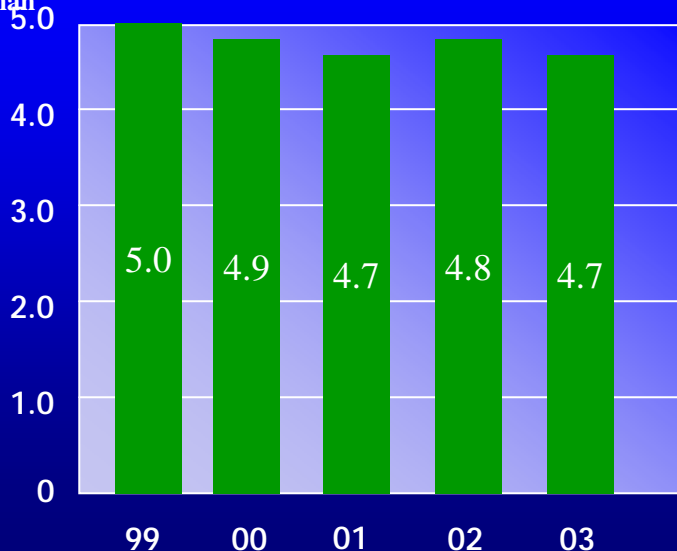


	<u>1984</u>	<u>2002</u>	<u>Pop Growth Rate</u>	<u>Total Fertility Rate</u>	<u>Net Migration/Thousand</u>
• 1 <sup>st</sup> Projection	783K	1,061K	1.7%	3.75	-10
• 2 <sup>nd</sup> Projection	783K	1,136K	2.1%	5.00	-10
• 3 <sup>rd</sup> Projection	783K	1,211K	2.4%	5.00	-8
• 4 <sup>th</sup> Projection	783K	1,430K	3.4%	5.00	0
• 5 <sup>th</sup> Projection	783K	1,550K	3.9%	6.50	0

- According to the PA Ministry of Health TFRs have declined to levels of the *lowest* ICBS Projection for the West Bank (21)

Total Fertility Rates/  
Woman

### Gaza



	<u>1984</u>	<u>2002</u>	<u>Pop Growth Rate</u>	<u>Total Fertility Rate</u>	<u>Net Migration/Thousand</u>
• 1 <sup>st</sup> Projection	510K	741K	2.1%	4.45	-10
• 2 <sup>nd</sup> Projection	510K	789K	2.5%	5.70	-10
• 3 <sup>rd</sup> Projection	510K	865K	3.0%	5.70	-6.5
• 4 <sup>th</sup> Projection	510K	992K	3.8%	5.70	0
• 5 <sup>th</sup> Projection	510K	1,070K	4.2%	7.20	0

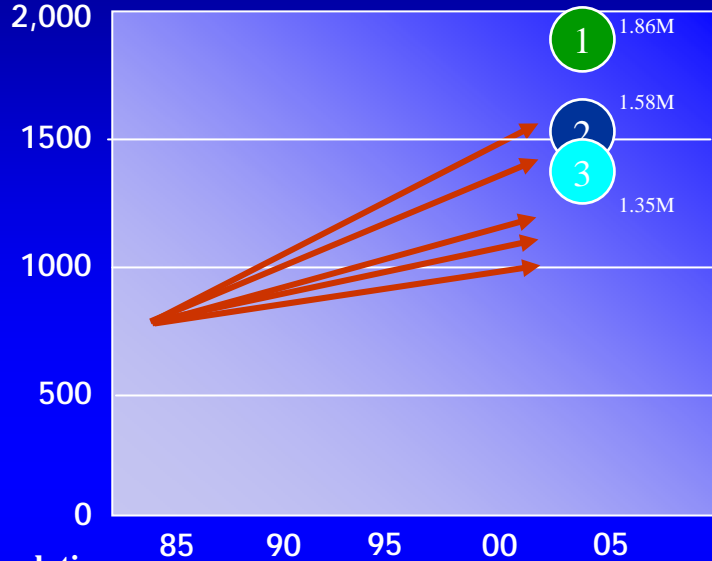
- According to the PA Ministry of Health TFRs have declined to levels of the *lowest* ICBS Projection for Gaza (21)

# Corroboration of Population Scenarios

## ICBS Projections vs. New Analyses (1984 – 2002)

PA  
1997  
2.42M

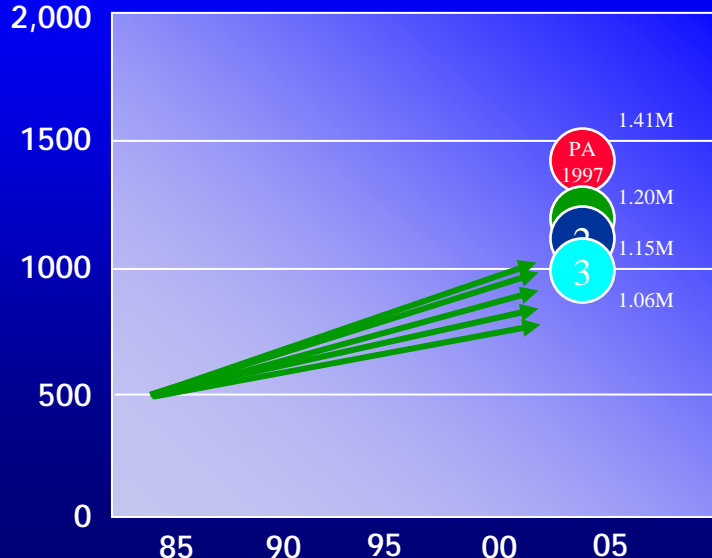
Population  
In Thousands  
West Bank Population



	<u>Various</u> <u>2004</u>		<u>Pop</u> <u>Growth</u> <u>Rate</u>	<u>Total</u> <u>Fertility</u> <u>Rate</u>	<u>Net</u> <u>Migration/</u> <u>Thousand</u>
• Scenario #1	1,600K	1,856K	2.5%	N/A	-4.9
• Scenario #2	1,240K	1,585K	3.1%	N/A	-6.3
• Scenario #3	916K	1,350K	2.7%	N/A	-5.0

- PA Projection and Scenario #1 are out of range
- Scenario #2 is at top of range
- Scenario #3 is in range

Population  
In Thousands  
Gaza Population



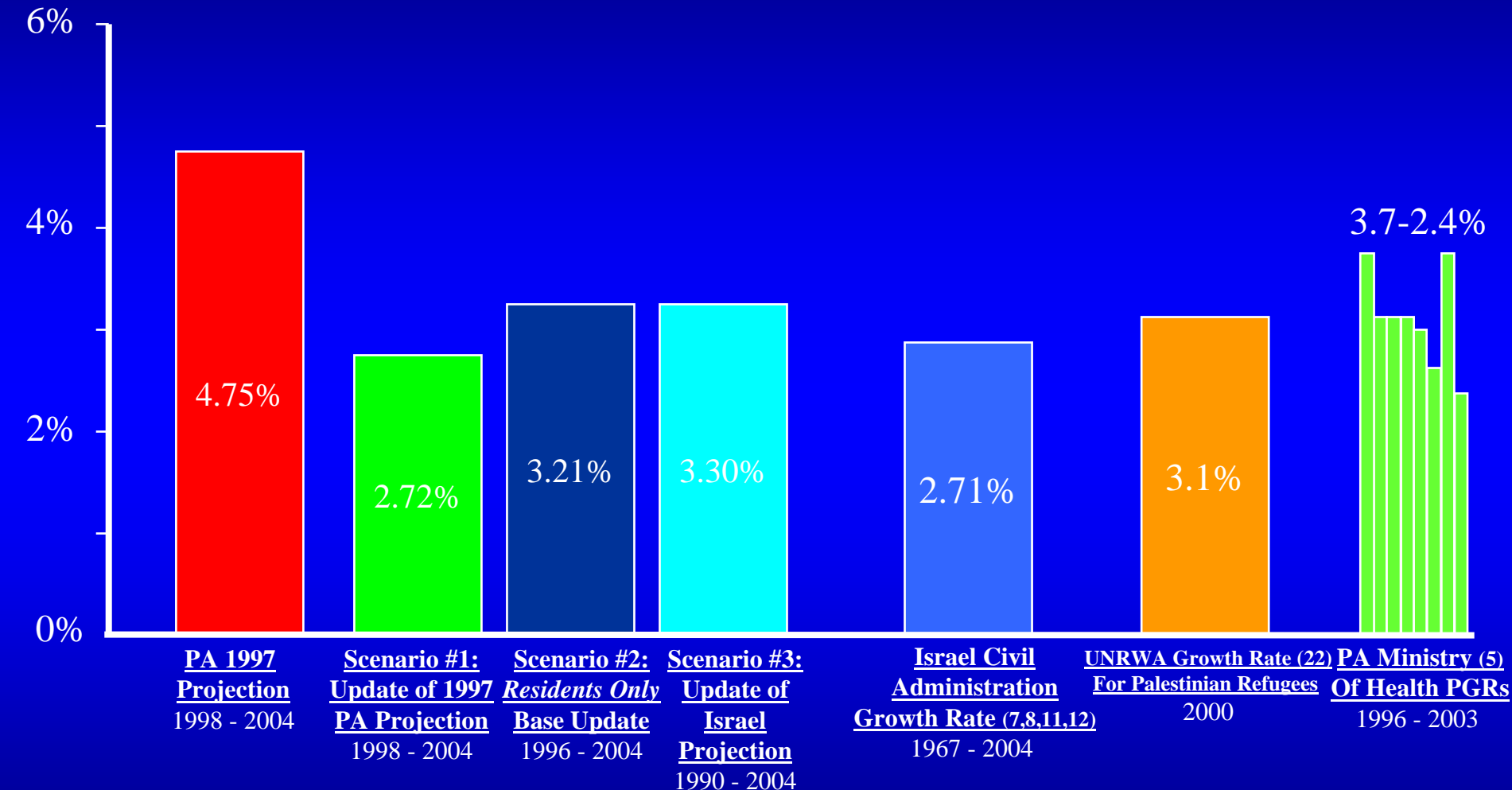
	<u>Various</u> <u>2004</u>		<u>Pop</u> <u>Growth</u> <u>Rate</u>	<u>Total</u> <u>Fertility</u> <u>Rate</u>	<u>Net</u> <u>Migration/</u> <u>Thousand</u>
• ABC Scenario #1	1,000K	1,200K	3.1%	N/A	-2.6
• ABC Scenario #2	884K	1,150K	3.3%	N/A	-3.2
• ABC Scenario #3	611K	1,056K	3.9%	N/A	-2.5

- PA Projection and Scenario #1 and Scenario #2 are out of range
- Scenario #3 is in range

# Corroboration of Population Scenarios

## Alternative Growth Rate Comparisons

Average Annual Growth Rate



- Scenarios #1, #2 and #3 have high Population Growth Rates (PGRs) similar to other surveys. All our scenarios grew at a faster rate than earlier Israel Civil Administration growth rates. If anything, the *higher* the PA claims its base, the *lower* its growth rate is going forward.
- The PA 1997 Projection assumed PGRs greater than growth rates of Palestinian population in UNRWA refugee camps. As the general population in the West Bank and Gaza is urban the overall growth rate should be less than that used for poorer, refugee groups.

# Corroboration of Population Scenarios

## Trend Impact Analysis (TIA)

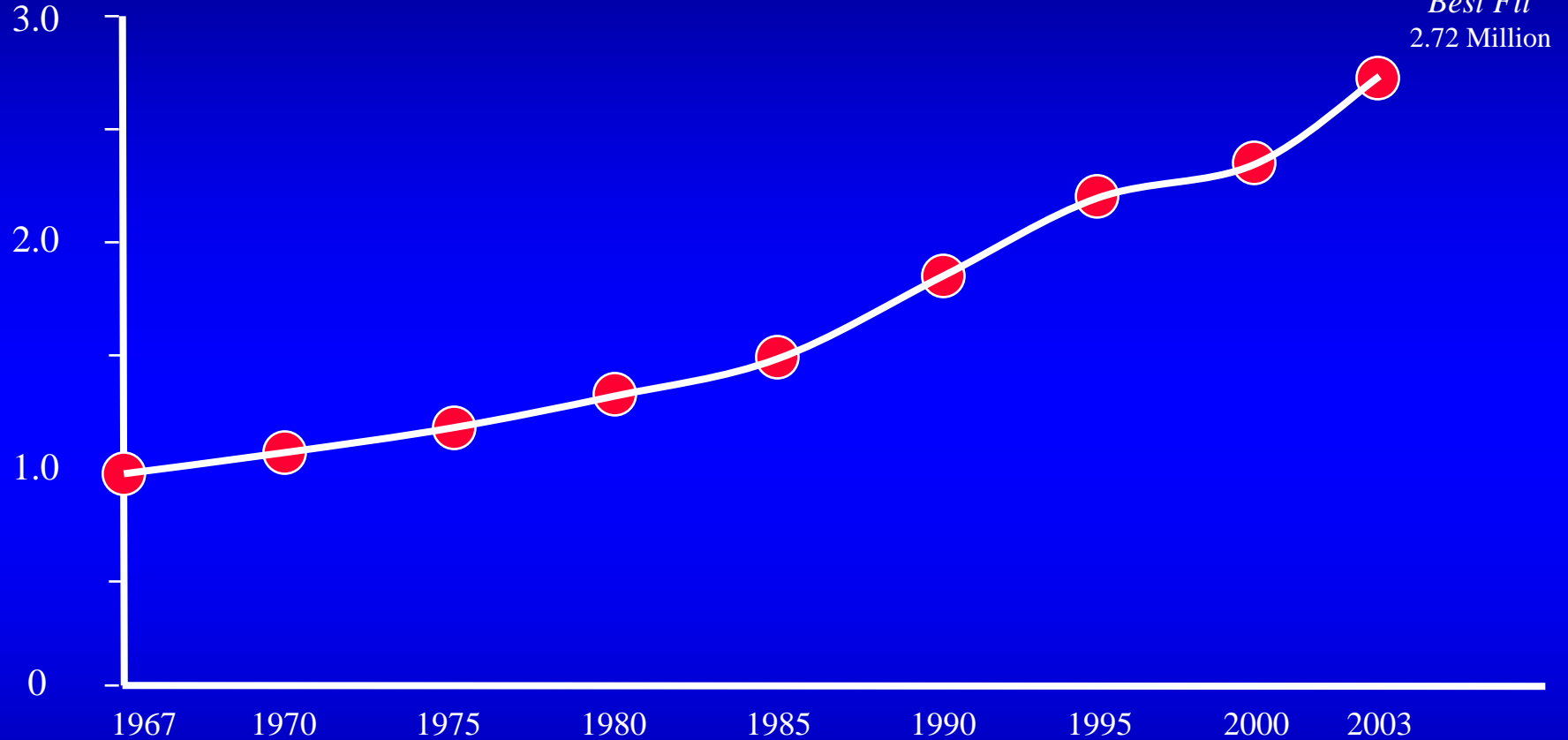
- “Trend Impact Analysis (TIA) is a simple approach to forecasting in which a time series is modified to take into account perceptions about how future events may change extrapolations that would otherwise be surprise-free. In generating a TIA, the set of future events that could cause surprise-free trends to change in the future must be specified. When TIA is used, a data base is created of key potential events, their probabilities, and their impacts.” -- *AC/UNU Millennium Project, “Futures Research Methods – V2.0”*. The chapter describing this methodology was written by Theodore J. Gordon. (23a)
- Two components are needed to perform a TIA properly:
  - First, a baseline curve is fitted to historical data to calculate the future without any regard to unpredictable future events
  - Second, judgments are made to identify events that could cause deviations to forecast extrapolated in the first curve. Probabilities are assigned to the occurrence of each event. These judgments help form the ‘swing curve’
- The outcome of a TIA is a ‘best fit’, or best forecast, given the input of the above.
- For the purpose of this study, we have used this methodology from a different time perspective. Instead of using it to foresee future demographic trends of the Palestinian population residing in the West bank and Gaza, we have used it to include events in the last 30 years that have occurred since 1967. We have thus adopted the TIA methodology as a form of back-casting to assess various population scenarios for the West Bank and Gaza.

*For further explanations Dr. David Passig, a member of our Team, can be contacted at Bar-Ilan University, Israel (23b)*

# Corroboration of Population Scenarios

## Trend Impact Analysis (TIA)

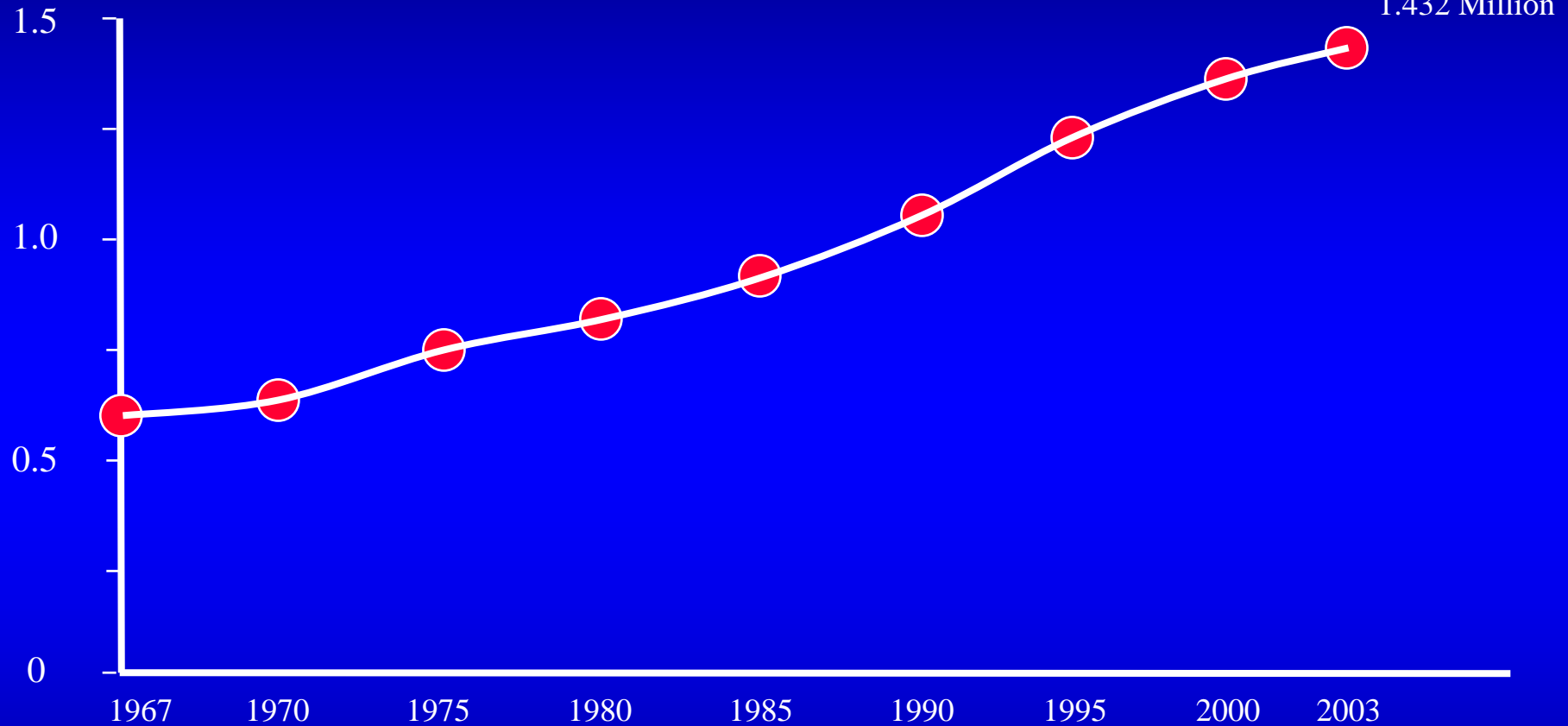
Population  
In Millions



- As Jordan shares many characteristics and links with the West Bank (Jordan controlled the area from 1948-1967) the group used Jordan's Natural Growth Rate (Births less Deaths) of 3.14% as a baseline from 1967 – 2003
- Next the group added regional events, emigration statistics, wars, and changing fertility rates to the 'swing curve'
- The 'best fit' curve generated by the TIA matches closely with Scenario #2, the *Residents Only* Base Projection from 1996

## Corroboration of Population Scenarios Jordanian Growth as Base Line for West Bank

Population  
In Millions



- As Jordan shares many characteristics and links with the West Bank (Jordan controlled the area from 1948-1967) the group used Jordan's Natural Growth Rate (Births less Deaths) for every 5 year period since 1967 to calculate a likely population for the West Bank and Gaza. (24)
- Annual immigration and emigration data, recorded at Israel's borders, is added or subtracted from each year.
- The final result was 1.432 million – 83 thousand above Scenario #3's 1.35 million and 148 thousand below Scenario #2's 1.585 million. (6)

# Corroboration of Population Scenarios

## Jordanian Growth as Base Line for West Bank

### *Data Table*

West Bank	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979
<b>Begin Base</b>		599.0	604.7	622.3	640.4	661.5	683.3	705.9	729.3	742.8	755.6	768.8	782.5
<b>Jordan Growth Rates</b>		3.35%	3.35%	3.35%	3.70%	3.70%	3.70%	3.70%	3.70%	3.54%	3.54%	3.54%	3.54%
<b>West Bank Migration</b>		-14.4	-2.7	-2.7	-2.7	-2.7	-2.7	-2.7	-13.5	-13.5	-13.5	-13.5	-13.5
<b>End Base</b>	599.0	604.7	622.3	640.4	661.5	683.3	705.9	729.3	742.8	755.6	768.8	782.5	796.6
	<b>1980</b>	<b>1981</b>	<b>1982</b>	<b>1983</b>	<b>1984</b>	<b>1985</b>	<b>1986</b>	<b>1987</b>	<b>1988</b>	<b>1989</b>	<b>1990</b>	<b>1991</b>	<b>1992</b>
<b>Begin Base</b>	796.6	811.3	824.9	847.1	870.0	893.7	918.2	941.7	965.8	990.8	1,016.5	1,051.9	1,089.0
<b>Jordan Growth Rate</b>	3.54%	3.34%	3.34%	3.34%	3.34%	3.34%	3.17%	3.17%	3.17%	3.17%	3.17%	2.86%	2.86%
<b>West Bank Migration</b>	-13.5	-13.5	-5.4	-5.4	-5.4	-5.4	-5.7	-5.7	-5.7	-5.7	3.2	7.0	9.3
<b>End Base</b>	811.3	824.9	847.1	870.0	893.7	918.2	941.7	965.8	990.8	1,016.5	1,051.9	1,089.0	1,129.5
	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>		
<b>Begin Base</b>	1,129.5	1,152.6	1,198.4	1,231.0	1,254.6	1,278.2	1,309.7	1,326.2	1,359.1	1,383.8	1,408.3		
<b>Jordan Growth Rate</b>	2.86%	2.86%	2.86%	2.63%	2.63%	2.63%	2.63%	2.63%	2.37%	2.37%	2.37%		
<b>West Bank Migration</b>	-9.1	12.8	-1.7	-8.8	-9.4	-2.1	-17.9	-1.9	-7.5	-8.4	-8.9		
<b>End Base</b>	1,152.6	1,198.4	1,231.0	1,254.6	1,278.2	1,309.7	1,326.2	1,359.1	1,383.8	1,408.3	1,432.7		

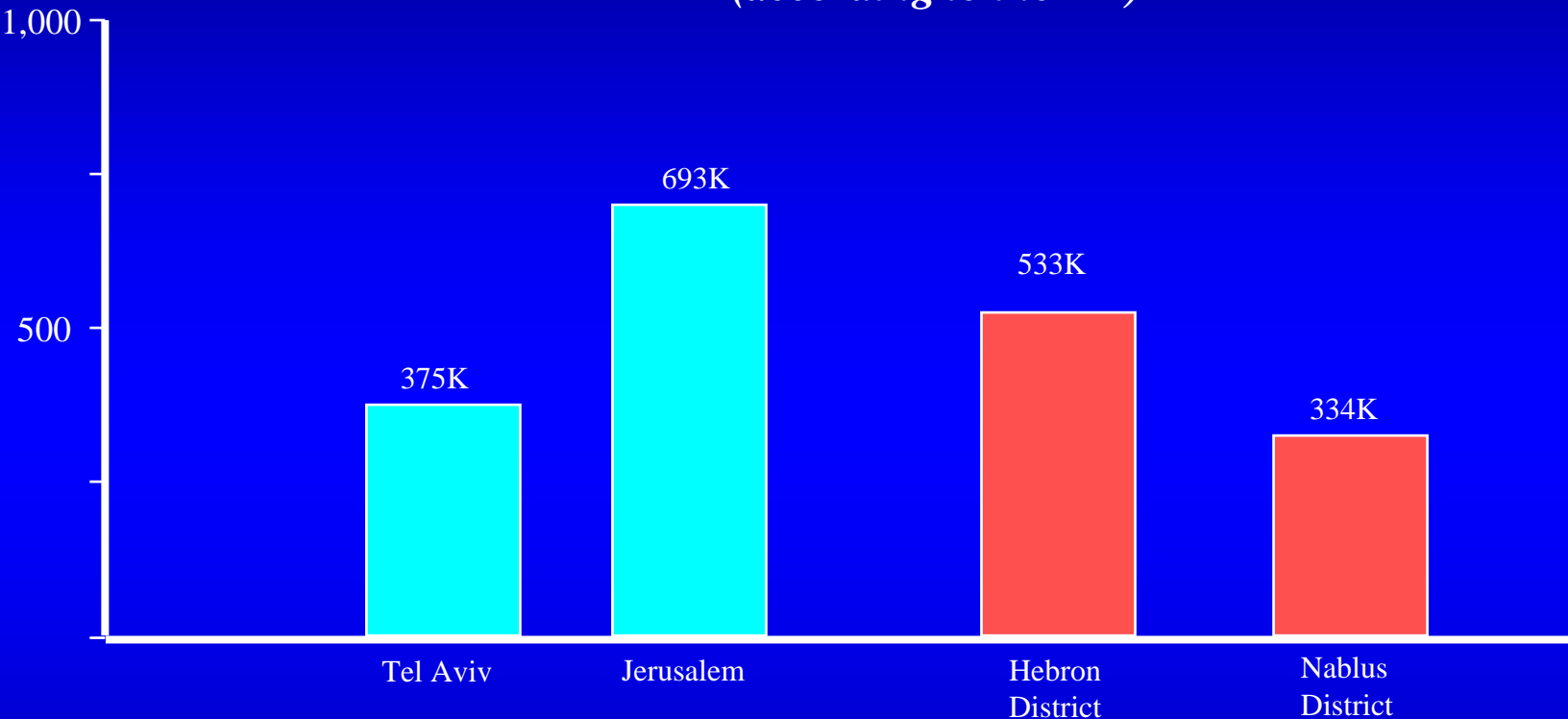
- As Jordan shares many characteristics and links with the West Bank (Jordan controlled the area from 1948-1967) the group used Jordan's Natural Growth Rate (Births less Deaths) for every 5 year period since 1967 to calculate a likely population for the West Bank and Gaza. (24)
- Annual immigration and emigration data, recorded at Israel's borders, is added or subtracted from each year.
- The final result was 1.432 million – 83 thousand above Scenario #3's 1.35 million and 148 thousand below Scenario #2's 1.585 million. (6)

# Corroboration of Population Scenarios

## PA's Current Population Claims Compared Against Israeli Population Centers

### **Palestinian Arab Population in mid-year 2004** *(according to the PA)*

Thousands of People



A look at the PA's current population reports compared against Israeli population centers shows how far off the PA Projections have traveled from commonly accepted understandings of population in the PA territories. The PA now claims that greater Hebron is almost as big as Jerusalem and that greater Nablus is as big as Tel Aviv! (19) (30)

-- "4,000 Israeli soldiers are required to protect the 500 settlers in the four Israeli settlements in Hebron's Old City. The nearby settlement of Kiryat Arba has 7,200 residents. The Arab population is now approximately 120,000."

-- Am Johal, *Seven Oaks: A Magazine of Politics, Culture & Resistance*, November 23, 2004 (26)

-- "The Palestinian Authority has had trouble finding new leaders to run the West Bank city of Nablus after the mayor, Ghassan Shakaa, resigned in February to protest the unchecked mayhem in his city of 180,000. (25)

-- Mohammed Daraghmeh, "Palestinian Cabinet to Hold Local Vote", *Associated Press*, May 10 2004

**Arab Population**  
**In the West Bank & Gaza**  
*The Million and a half Person Gap*

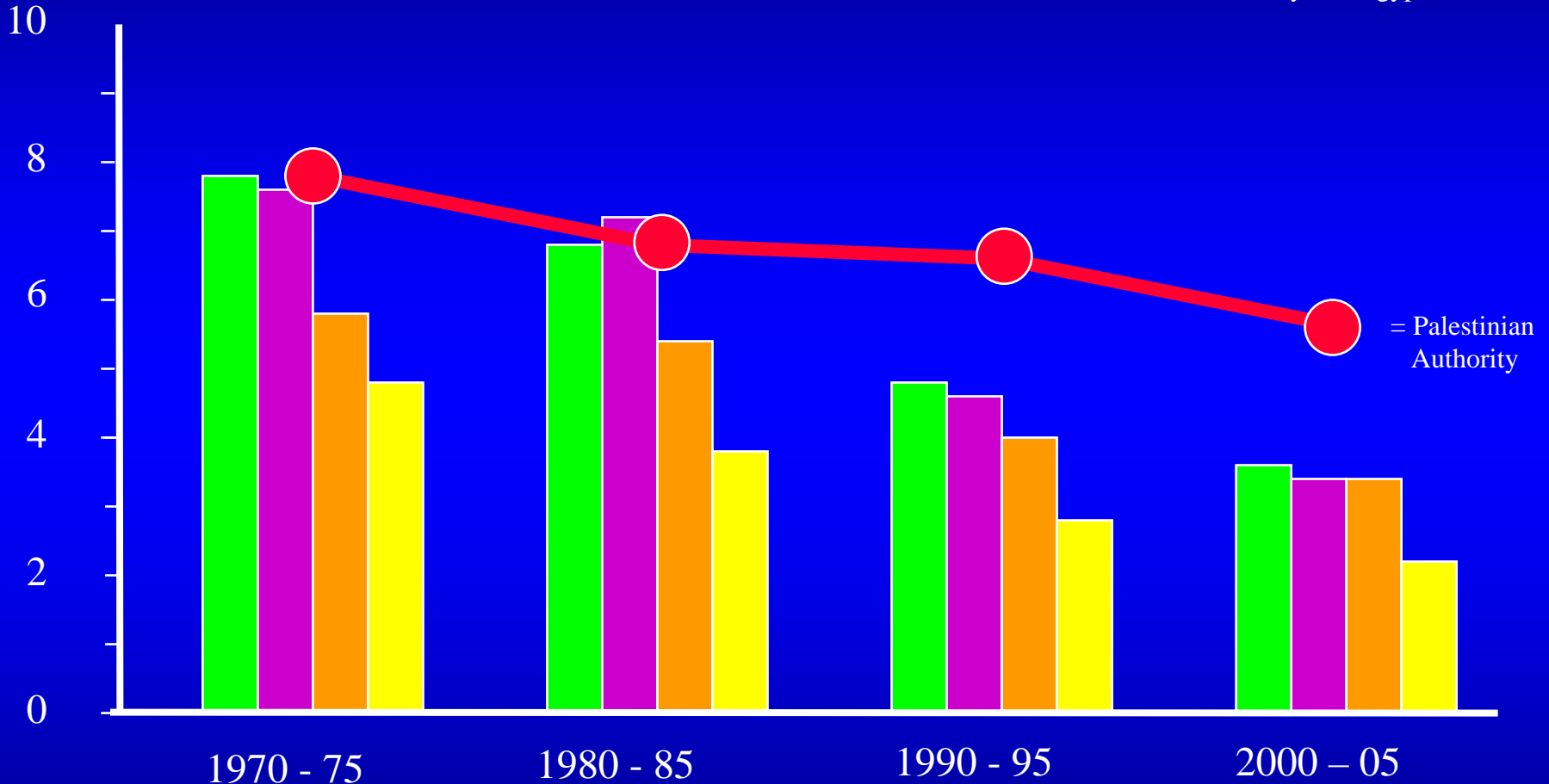
**5. Regional & Worldwide Comparisons**

- Middle East: Total Fertility Rates
- Middle East: Birthrates
- Middle East: Population Growth Rates
  
- Worldwide Characteristics of High Birth Societies
- Worldwide Characteristics of Low Birth Societies

# Total Fertility Rates (TFR) Middle Eastern Comparisons vs. PA

Jordan Syria Egypt Lebanon

Total Fertility Rate  
Births/Woman



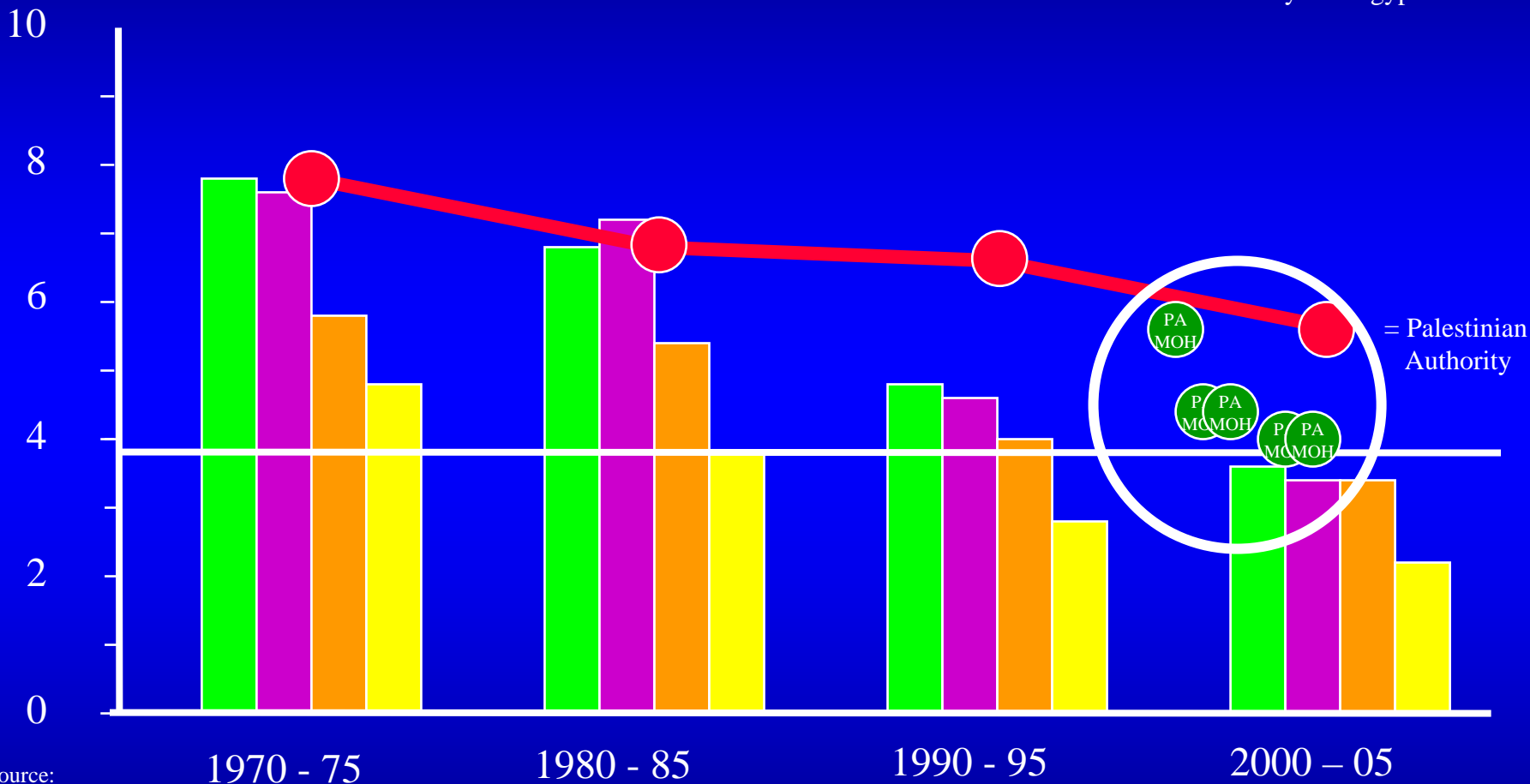
Source:  
UN Population Division (16)

- While Total Fertility Rates (births per woman) have declined dramatically for other Arab Middle Eastern societies, the *reported* TFRs from the Palestinian Central Bureau of Statistics has not declined as much.
- The PA Central Bureau of Statistics reiterated a 5.2 TFR for the West Bank and Gaza in its *Demographic and Health Survey 2004* (27)

# Total Fertility Rates (TFR) Middle Eastern Comparisons vs. PA (with PA Ministry of Health Updates)



Total Fertility Rate  
Births/Woman



Source:  
UN Population Division (16)

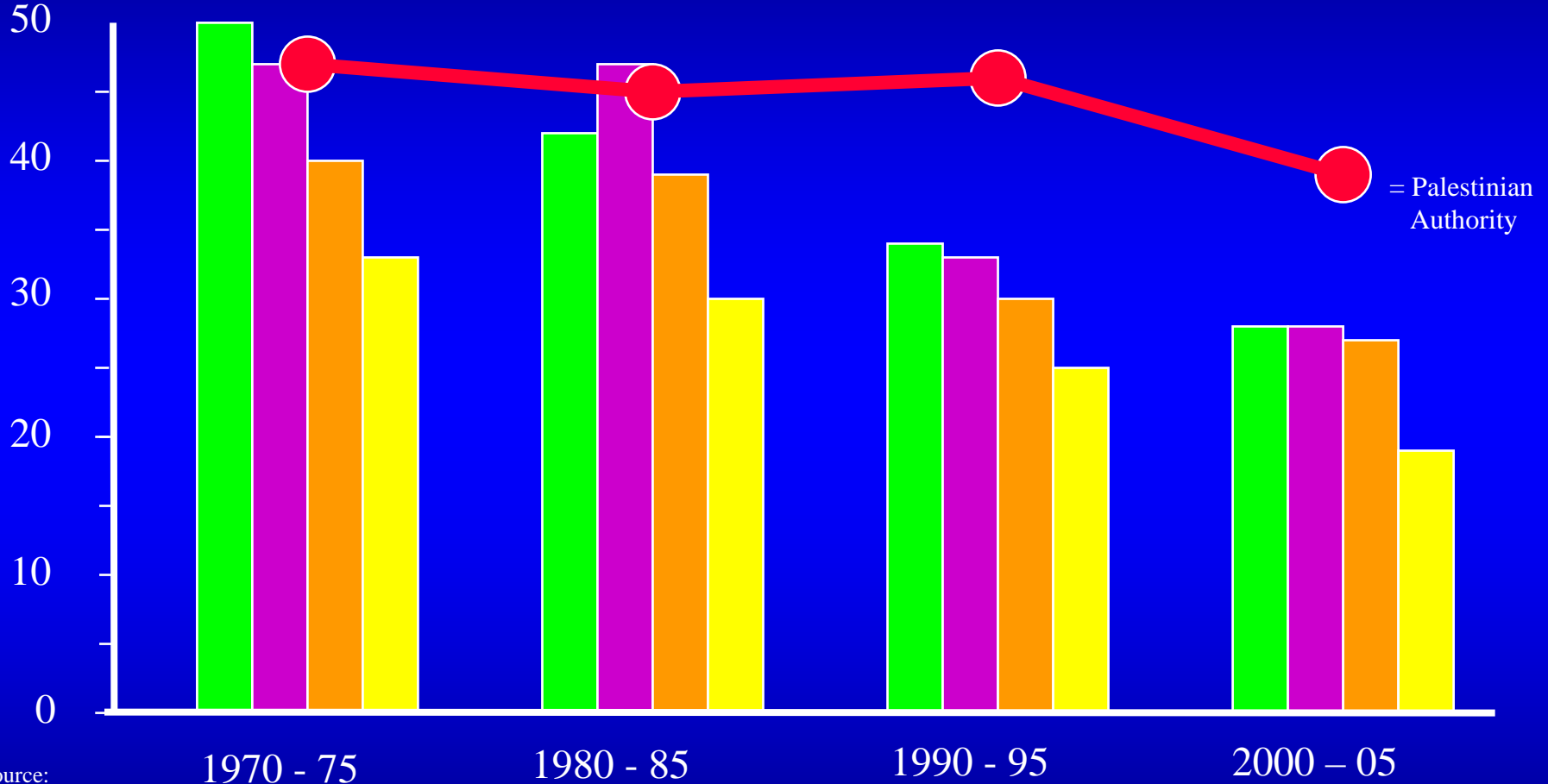
- According to the Palestinian Ministry of Health, the Total Fertility Rates (TFR) for the West Bank and Gaza went through a long-term significant decline from 5.58 in 1998, to 4.39 in 1999, to 4.31 in 2000, to 3.85 in 2002 and to 3.89 in 2003. (21)
- The PA Ministry of Health statistics are more in line with declining fertility rates throughout the Middle East.

# Birthrates

## Middle Eastern Comparisons vs. PA

Total Birth Rate  
Births/1000 People

Jordan Syria Egypt Lebanon  
= Palestinian Authority



Source:  
UN Population Division (16)

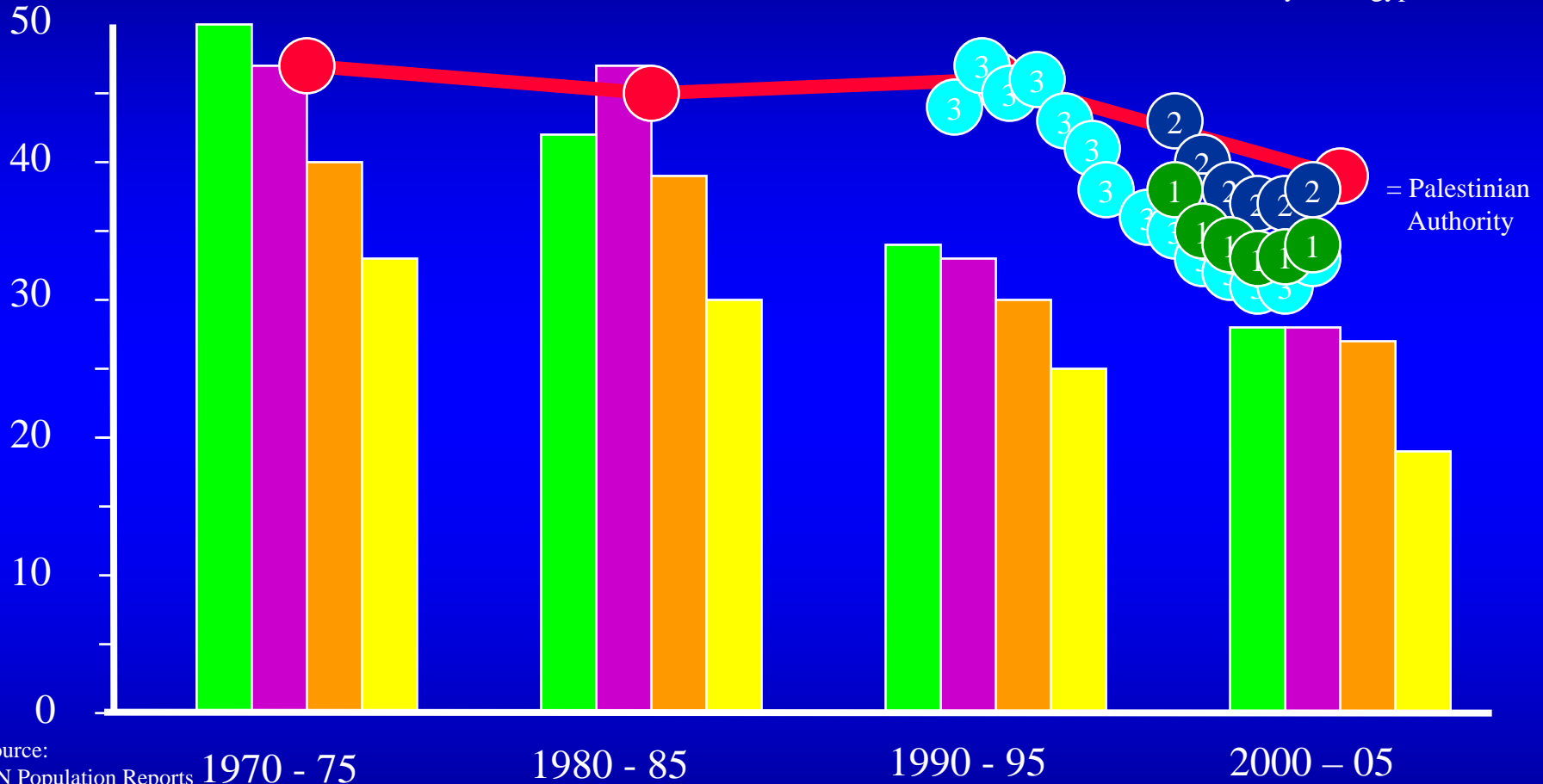
- While birthrates have declined dramatically for other Arab Middle Eastern societies, the *reported* PA Birthrate has not declined as much. (16) (2)

# Birthrates

## Middle Eastern Comparisons vs. PA (with Scenarios #1, #2, #3)

Total Birth Rate  
Births/1000 People

Jordan
  Syria
  Egypt
  Lebanon



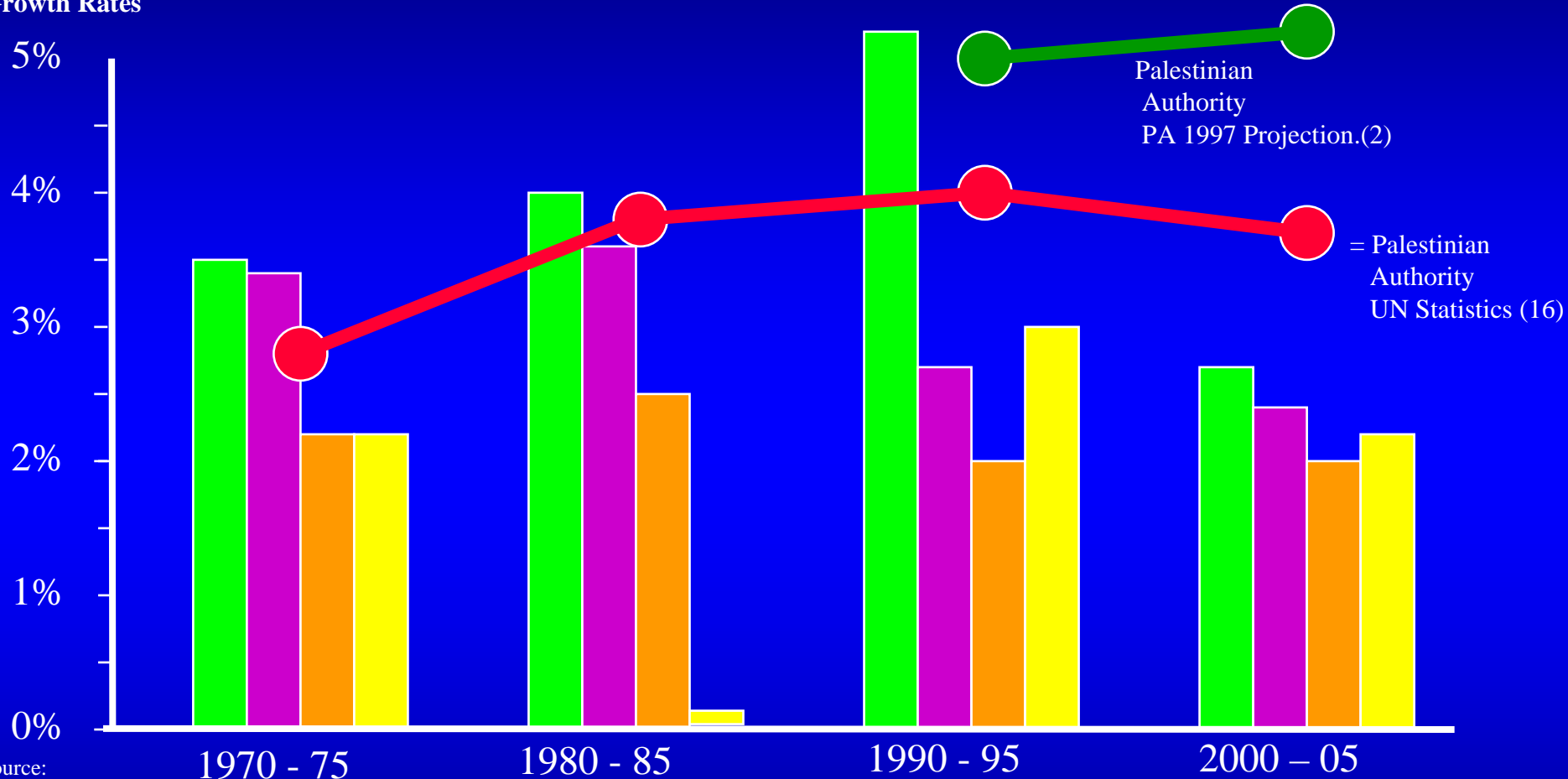
Source:  
UN Population Reports

- In Scenario #1 PA Ministry of Health births were added to the 1997 PA Census base. Actual birthrates were well below levels reported and forecast by the PA to world bodies.
- In Scenario #2, the birthrates come closer to forecast, but, as stated previously, the Arab population base had to be *lowered* by 300 thousand to achieve birthrates near the PA forecast.
- In Scenario #3, Israel recorded high birthrates in the early 1990s but these rates fell with rapidly declining fertility rates. Scenario #3 is the only scenario in which PA births are consistent with regional statistics.

# Population Growth Rates (PGR) Middle Eastern Comparisons vs. PA

Jordan
  Syria
  Egypt
  Lebanon

Annual Population Growth Rates



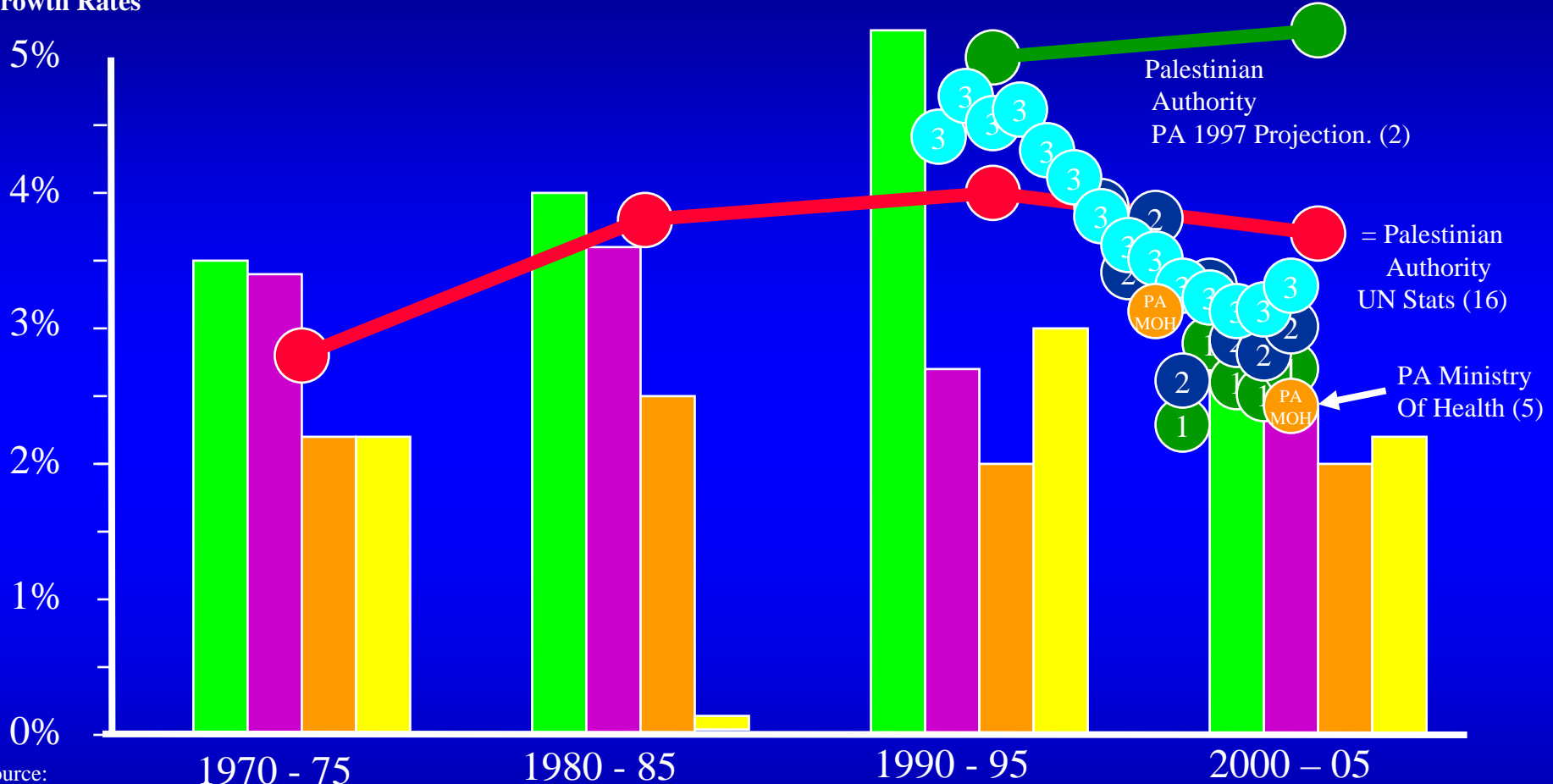
Source:  
UN Population Reports (16)

- The 1997 PA Central Bureau of Statistics Survey, which has served as the data base for most projections, claimed that the PGR for the West Bank and Gaza would sustain itself between 4 and 5% per annum from 1998 onwards, well above any other Middle Eastern society.
- Despite the fact that the PA now reports lower growth rates to the UN, the annual population totals of the 1997 PA Projection continue to be reported without any downward adjustment.
- During the early 1990s, Jordan showed dramatic growth when it was the *de facto* absorber of Palestinian Arabs leaving Kuwait and other Gulf States.

# Population Growth Rates Middle Eastern Comparisons vs. PA (with Scenarios #1, #2, #3)

Jordan  
 Syria  
 Egypt  
 Lebanon

**Annual Population Growth Rates**



Source:  
UN Population Reports (16)

- In Scenario #1 PA Ministry of Health births are added to the 1997 PA Census base. Actual growth rates are well below levels reported and forecast by the PA Central Bureau of Statistics to world bodies.
- In Scenario #2, actual growth rates are well below levels reported by the PCBS, even with a lower population base in 1996.
- In Scenario #3, Israel's recorded births initially produced higher birthrates since they were matched against a smaller population base; these rates fell with declining fertility rates and annual emigration.
- According to the PA Ministry of Health, the population growth rate for the West Bank and Gaza dropped from 3.1% in 1998 to 2.4% in 2003.

# World Population Statistics

## High Birth Societies vs. Other Factors

*“The World Factbook – 2004”*



	Birth Rank	Births per Thousand	Deaths per Thousand	Total Fertility Rate	Infant Mortality/Thousand	Life Expectancy	Migration per Thousand	Pop. Growth Rate
Niger	1	48.91	21.51	6.83	122.66	42.18	0.00	2.67%
Mali	2	47.29	19.12	6.58	117.99	45.28	0.00	2.78%
Afghanistan	3	47.27	21.12	6.78	165.96	42.46	23.06	4.92%
Chad	4	46.50	16.38	6.38	97.78	48.24	0.00	3.00%
Uganda	5	46.31	16.61	6.64	86.15	45.28	0.00	2.97%
Somalia	6	46.04	17.30	6.91	118.52	47.71	5.37	3.41%
Angola	7	45.14	25.86	6.33	192.50	36.79	0.00	1.93%
Liberia	8	44.81	17.86	6.16	130.51	47.93	0.00	2.70%
Congo, Democratic Republic	9	44.73	14.64	6.62	94.69	49.14	-0.17	2.99%
Burkina Faso	10	44.46	18.79	6.28	98.67	44.20	0.00	2.57%
Malawi	11	44.35	23.01	6.04	104.23	37.48	0.00	2.14%
Sierra Leone	12	43.34	20.62	5.79	145.24	42.69	0.00	2.27%
Yemen	13	43.16	8.78	6.75	63.26	61.36	0.00	3.44%
Benin	14	42.57	13.69	5.95	50.81	50.81	0.00	2.89%
Guinea	15	42.26	15.53	5.87	91.82	49.70	-3.06	2.37%
Mayotte	16	42.19	8.11	5.98	64.19	60.99	6.78	4.09%
Madagascar	17	41.91	11.62	5.70	78.52	56.54	0.00	3.03%
Mauritania	18	41.79	12.74	6.01	72.35	52.32	0.00	2.91%
Sao Tome and Principe	19	41.36	6.89	5.80	44.58	66.63	-2.72	3.18%
Gaza Strip	20	40.62	3.95	6.04	23.54	71.59	1.60	3.83%



Source: The CIA World Factbook 2004 (28)

- High birth societies when ranked from top to bottom share characteristics of higher death rates, lower life expectancy, higher infant mortality – except for the Gaza Strip.
- The PCBS reports 3<sup>rd</sup> World statistics when it comes to births but 1<sup>st</sup> World characteristics when it comes to death and life expectancy
- This aberration alone should have been a sure sign for academics and demographers to begin an examination of statistics reported to world bodies by the PA.

# World Population Statistics

## High Birth Societies vs. Other Factors

*“The World Factbook – 2004”*

3<sup>rd</sup> World   Med   Low   1<sup>st</sup> World

	Birth Rank	Births per Thousand	Deaths per Thousand	Total Fertility Rate	Infant Mortality/Thousand	Life Expectancy	Migration per Thousand	Pop, Growth Rate
Djibouti	21	40.39	19.42	5.48	105.54	43.12	0.00	2.10%
Gambia	22	40.30	12.08	5.46	73.48	54.79	1.57	2.98%
Rwanda	23	40.01	21.86	5.55	101.68	39.18	0.00	1.82%
Burundi	24	39.68	17.61	5.90	70.40	43.36	-0.06	2.20%
Cote d'Ivoire	25	39.64	18.48	5.42	97.10	42.48	-0.07	2.11%
Ethiopia	26	39.23	20.36	5.44	102.12	40.88	0.00	1.89%
Eritrea	27	39.03	13.36	5.67	75.59	52.70	0.00	2.57%
Tanzania	28	39.00	17.45	5.15	102.13	44.39	-2.06	1.95%
Zambia	29	38.99	24.35	5.14	98.40	35.18	0.00	1.47%
Nigeria	30	38.24	13.99	5.32	70.49	50.49	0.26	2.45%
Guinea-Bissau	31	38.03	16.57	5.00	108.72	46.98	-1.57	1.99%
Comoros	32	38.00	8.63	5.15	77.22	61.57	0.00	2.94%
Oman	33	37.12	3.91	5.90	20.26	72.85	0.28	3.35%
Equatorial Guinea	34	36.56	12.27	4.68	87.08	35.15	0.00	2.43%
Laos	35	36.47	12.10	4.86	87.06	54.69	0.00	2.44%
Gabon	36	36.40	11.43	4.80	54.34	56.46	0.00	2.50%
Maldives	37	36.06	7.44	5.14	58.32	63.68	0.00	2.86%
Mozambique	38	36.06	23.86	4.78	137.08	37.10	0.00	1.22%
Sudan	39	35.79	9.37	4.97	64.05	58.13	-0.02	2.64%
Senegal	40	35.72	10.74	4.84	56.53	56.56	0.20	2.52%
Central African Republic	41	35.55	19.99	4.59	92.15	41.36	0.00	1.56%
Cameroon	42	35.08	15.34	4.55	69.18	47.95	0.00	1.97%
Guatemala	43	34.58	6.79	4.60	36.91	65.19	-1.67	2.61%
Bhutan	44	34.41	13.20	4.87	102.56	53.99	0.00	2.12%
Togo	45	34.36	11.64	4.79	67.66	53.05	0.00	2.27%
Marshall Islands	46	33.88	4.94	4.02	30.50	69.70	-6.04	2.29%
Haiti	47	33.76	13.21	4.76	74.38	51.78	-3.40	1.71%
Namibia	48	33.51	21.02	4.65	69.58	40.53	0.00	1.25%
West Bank	49	33.21	4.07	4.52	20.16	72.88	2.98	3.21%
Iraq	50	33.09	5.66	4.40	52.71	68.26	0.00	2.74%



# World Population Statistics

## Low Birth Societies vs. Other Factors

*“The World Factbook – 2004”*



	Birth Rank	Births per Thousand	Deaths per Thousand	Total Fertility Rate	Infant Mortality/Thousand	Life Expectancy	Migration per Thousand	Pop. Growth Rate
Pakistan	54	31.22	8.67	4.29	74.43	62.61	-2.77	1.98%
Bangladesh	59	30.03	8.52	3.15	64.32	61.71	-0.71	2.08%
Saudi Arabia	62	29.74	2.66	4.11	13.70	75.23	-2.71	2.44%
Syria	63	28.93	4.96	3.61	30.60	69.71	0.00	2.40%
Libya	70	27.16	3.48	3.42	25.70	76.28	0.00	2.37%
Egypt	84	23.84	5.30	2.95	33.90	70.71	-0.22	1.83%
Turks and Caicos Islands	90	22.85	4.26	3.11	16.27	74.25	11.68	3.03%
India	91	22.80	8.38	2.85	57.92	63.99	-0.07	1.44%
Jordan	93	22.73	2.62	2.86	18.11	78.06	6.59	2.67%
Kuwait	96	21.85	2.44	3.03	10.26	76.84	14.18	3.36%
World Average	106	20.24	8.86	2.62	50.31	64.05	0.00	1.14%
Lebanon	114	19.31	6.28	1.95	25.48	72.35	0.00	1.30%
Israel	122	18.45	6.19	2.47	7.21	79.17	0.68	1.29%
United States	160	14.13	8.34	2.07	6.63	77.43	3.41	0.92%
France	175	12.34	9.06	1.85	4.31	79.44	0.66	0.39%



- Most other Arab societies that achieved high life expectancy have seen those changes accompanied by lower birthrates indicative of more modern societies
- Note low birthrate that has developed in Jordan, a society that shares many characteristics with Palestinian Arabs.
- Western nations have developed low birth rates matched by highest life expectancy rates
  - Nations like Israel and the United States have among the highest growth rates in the developed world.
  - Many Western European nations have reached levels where they may begin to contract in population.

# Arab Population In the West Bank & Gaza *The Million and a half Person Gap*

## 6. Implications/Conclusions



- Final Population Calculation: 1.35 million for West Bank, 1.07 million for Gaza, 2.42 million Total
- 60/40 Jewish to Arab Ratio Holds in Israel, West Bank & Gaza
- Jewish Population grows at same rate as West Bank
- Gaza growth rate well below Palestinian estimates, but higher than Israel & West Bank Rates

# Final Scenario Selection

## Scenario #2 and Scenario #3 Win

	October 2004 PA Voting Report	ICBS Projections 1984 – 2002	Trend Impact Analysis (TIA)	Region/World Pop. Growth Rates	Jordan Base Line (W. Bank Only)	
1997 Palestinian Authority Census & Projection	X	X	X	X	X	3.83 Million
Scenario #1: Update of 1997 PA Projection	X	X	✓	✓	X	3.06 Million
Scenario #2: <i>Residents Only</i> Base Update from 1996	✓	✓	✓	✓	✓	2.73 Million ✓
Scenario #3: Update of Israel Projection from 1990	✓	✓	✓	✓	✓	2.41 Million ✓

- The Team evaluated each population scenario against a variety of corroborative data from Palestinian, Israeli and 3<sup>rd</sup> Party sources to reach the following determinations:
  - Scenario #3, the Update of Israel's Projection from 1990, and Scenario #2, the *Residents Only* Base Update from 1996 have the most corroboration among all the population scenarios.
  - Scenario #1, the Update of the 1997 PA Projection, is only possible if one includes Palestinians *living abroad*
  - The original 1997 PA Projection fails when tested against even Palestinian sources.

# Accounting for Internal Migration Refugees from the West Bank and Gaza 1993 - 2003



- Without crossing any formal border, many West Bank and Gaza Arabs have obtained Israeli citizenship and residency rights. Many are ‘illegal’ immigrants who are not registered by authorities. Others are those with Israeli ID cards who have moved back to areas within Israeli jurisdiction – especially in the area of Jerusalem. Still others have changed their status to become new Israeli citizens or permanent residents of the State. Those with ID cards are now counted in Israel’s population survey and should be removed from the population count for the West Bank and Gaza.
- The issue bears close investigation because this migration would explain the high Israeli Arab growth rate and it would also further reduce our understandings of growth rates in the West Bank and Gaza.

# Accounting for Internal Migration

## Officially Counted *Only*

### 1993 - 2003



- 129,434 Residents of the West Bank and Gaza received Israeli IDs and settled in pre-'67 Israel and eastern Jerusalem.
- Another 21,303 residents from the West Bank and Gaza were in the pipeline with pending applications to receive Israeli IDs.
- This 150,737 is split approximately  $\frac{3}{4}$  from the West Bank and  $\frac{1}{4}$  from Gaza:

115 thousand "official" internal migration from West Bank  
35 thousand "official" internal migration from Gaza  
150 thousand internal migration

- In November 2003, the Israel Ministry of Interior Population Administration Division counted the number of Arab nationals who had received Israeli IDs under family reunification programs from 1993 as 150 thousand. This number is overwhelmingly made up of internal migrants from the West Bank and Gaza.
- Assessing the impact of the officially recorded internal migration, the Team was able to calculate that fully 1.0% of the Israeli Arab 3.1% growth rate since 1990 was due to this official internal immigration. The *natural growth rate (the growth rate before migration) for Israeli Arabs is therefore only 2.1% -- less than the 2.5% growth rate for Israeli Jews since 1990.*
- The Team has not yet made any calculations for unofficial "illegal" immigrants into Israel. This subject deserves further examination to fully understand the population patterns for the West Bank and Gaza.

# Most Probable Population Count West Bank and Gaza 2004

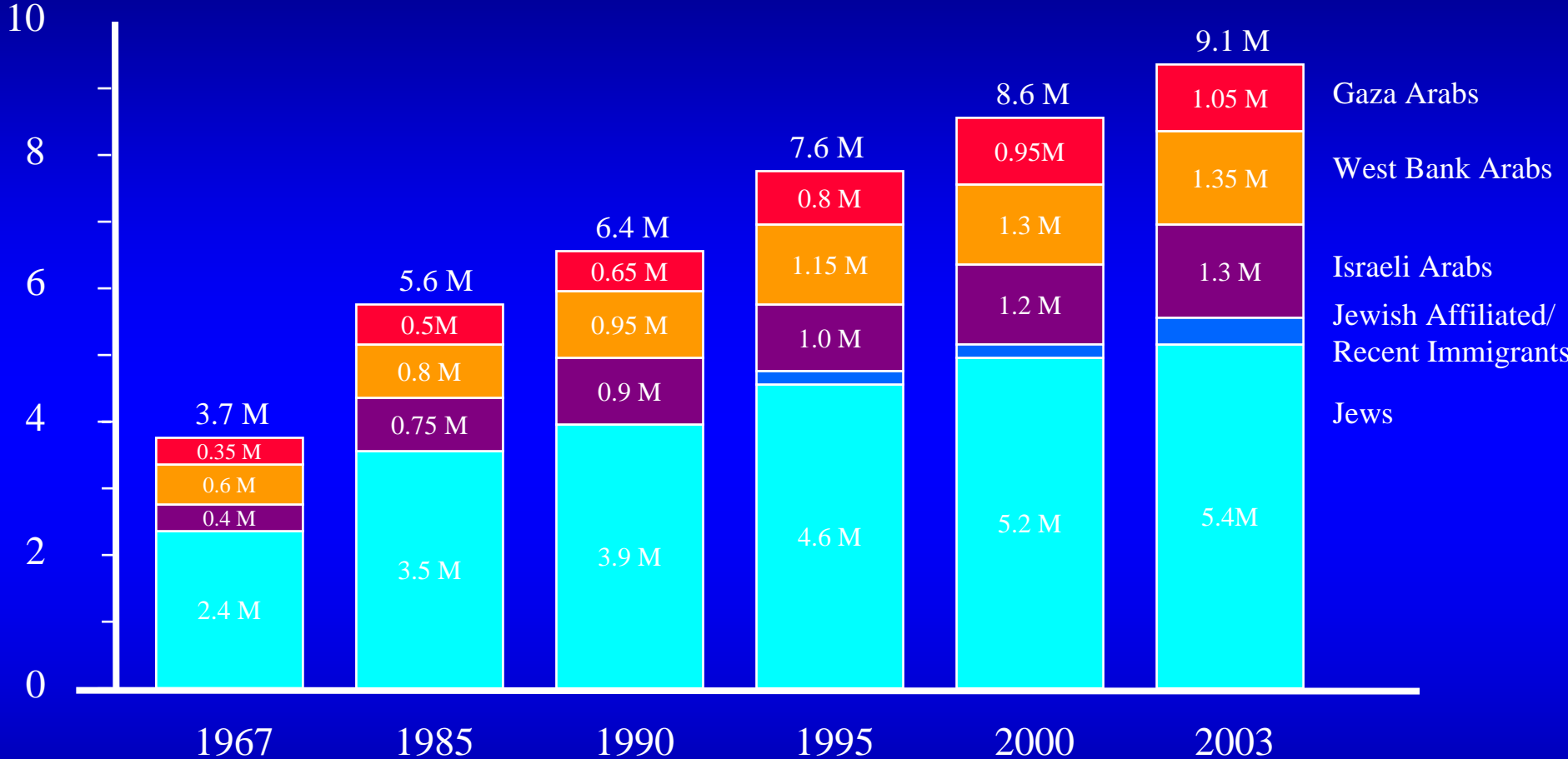
	West Bank	Gaza	Total
<u>Scenario #2</u> Residents Only Base Projection (1997-2004)	1.58 Million	1.15 Million	2.73 Million
<u>Scenario #3</u> Update of Israel Projection (1990-2004)	1.35 Million	1.06 Million	2.41 Million
Average of Scenario #2 & Scenario #3	1.47 Million	1.10 Million	2.57 Million
Internal Migration Into pre-'67 Israel & Jerusalem (30)	<115 K>	<35 K>	<150 K>
<b>Final Population Count</b>	1.35 Million	1.06 Million	2.42 Million

- The Team averaged the results of the only two plausible scenarios for a *resident only* population, and included the impact of internal migration, to calculate the most likely Palestinian Arab population in the West Bank and Gaza at the beginning of 2004 as 2.42 million with 1.35 million for the West Bank and 1.07 million for Gaza.

# Population Breakdown

By Segment  
(1967 – 2004)

Population  
In Millions



Source: Israel Central Bureau of Statistics Website, ICBS Annual Yearbook 1996, Team Average of Scenario #2 and #3 less Internal Migration Statistics from Israel Ministry of Interior (7) (30) (31)  
See Appendix E for detail.

# Population Breakdown

(1967 –2004)

% Population  
Entire Land

100

80

60

40

20

0

1967

1985

1990

1995

2000

2004

64.1%

62.8%

61.5%

60.7%

60.2%

59.5%

10.6%

13.4%

13.6%

13.2%

13.8%

14.2%

15.8%

14.4%

14.9%

15.2%

14.9%

14.7%

9.6%

9.4%

10.0%

10.8%

11.2%

11.5%

Gaza Arabs

West Bank Arabs

Israeli Arabs

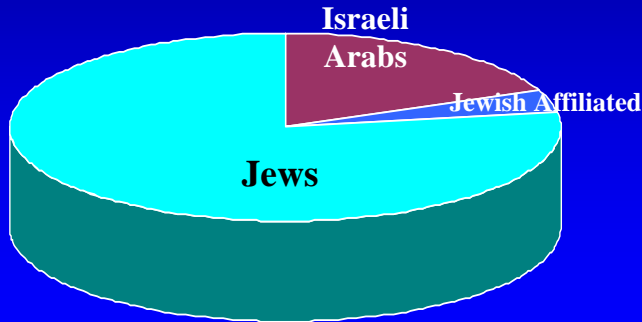
Jewish Affiliated/  
Recent Immigrants

Jews

- Jews have maintained their demographic position in Israel and the territories since 1967. This ratio has remained stable through the years.
  - Jews & Jewish Affiliated Groups maintain a 60% majority
  - The diverse Israeli Arab group, including Druze, Christian Arabs, and Moslems, has been the fastest growing segment in Israeli society.
  - The proportion of Palestinian Arabs in the West Bank and Gaza has remained stable at one quarter of the population in the land.
- Many analysts count recent non-Jewish immigrants (who are related to Jews) as “Palestinian” even though they, along with other Israeli citizens, including Israeli Arabs, fully participate in the State, its army, and its institutions.
- Israel is more multicultural, but not more “Palestinian Arab”. Some researchers have misplaced any non-Jew in the “Palestinian” category.
- As in 1967, Israel faces a very real issue on the status of a large *minority* population in the West Bank & Gaza.

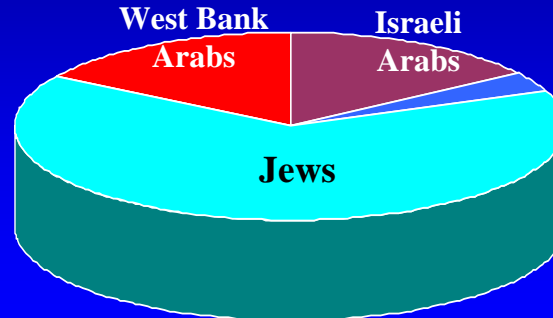
# Population Breakdown

Israel, the West Bank, and Gaza  
(2004)



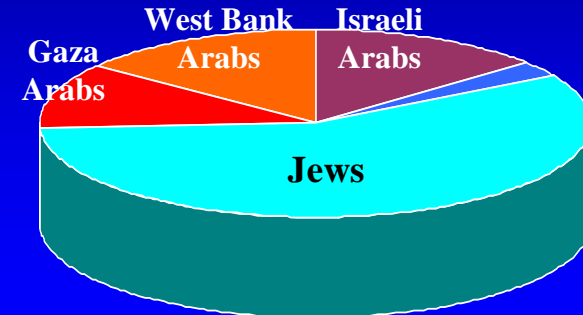
Israel

**81% Jewish**



Israel  
& West Bank

**67% Jewish**



Israel  
& West Bank  
& Gaza

**60% Jewish**

- Jews are a majority in the entire land between the Jordan River and the Mediterranean Sea. There are 3 Jews for every 2 Arabs.
- Jews outnumber Arabs 2 to 1 in the area of Israel and the West Bank.
- Jews are a dominant majority in the border of Israel (including all of Jerusalem) outnumbering Arabs 4 to 1.

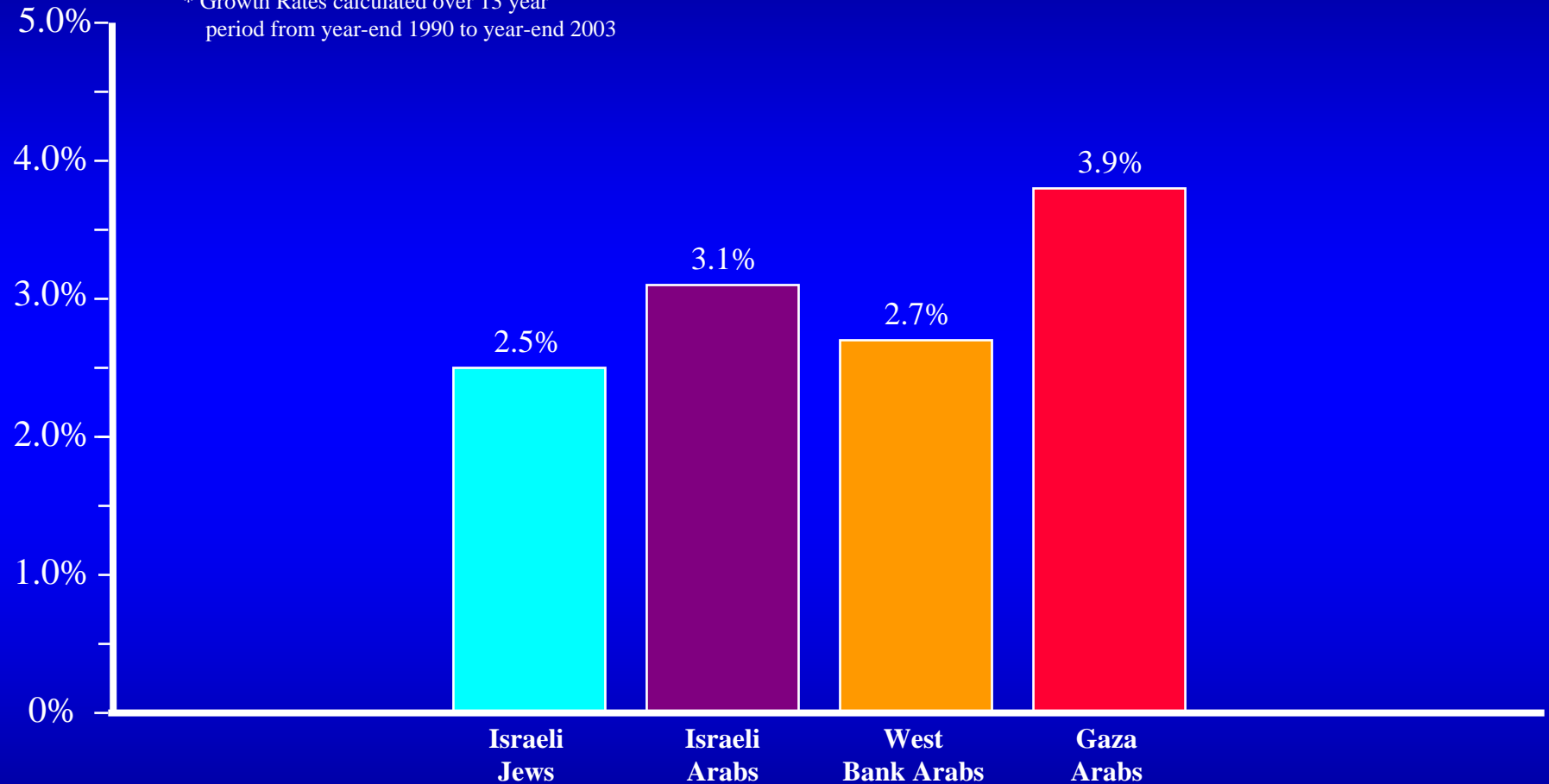
# Population Growth Rates

## Growth Rates by Segment

### 1990 – 2004\*

Compound Annual  
Growth Rate

\* Growth Rates calculated over 13 year  
period from year-end 1990 to year-end 2003



- All population groups grew at a robust pace from 1990 through year-end 2003
  - Jews grew at a 2.5% annual rate
  - Israeli Arabs at a 3.1% annual rate
  - West Bank Arabs at a 2.7% annual rate; Gaza Arabs at a 3.9% annual rate

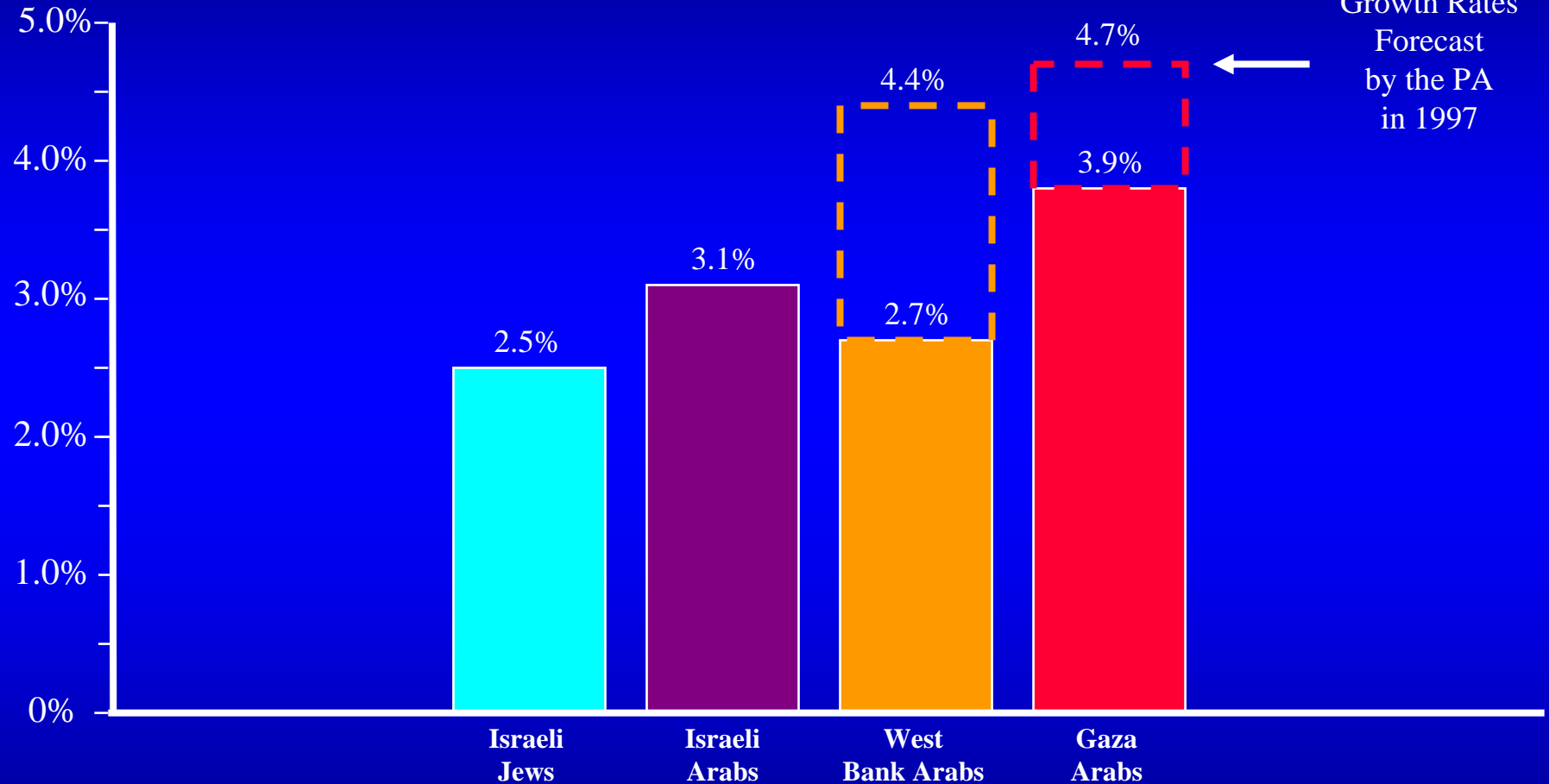
Source: Appendix E for detail.

# Population Growth Rates

## Growth Rates by Segment

### 1990 – 2004

Compound Annual  
Growth Rate



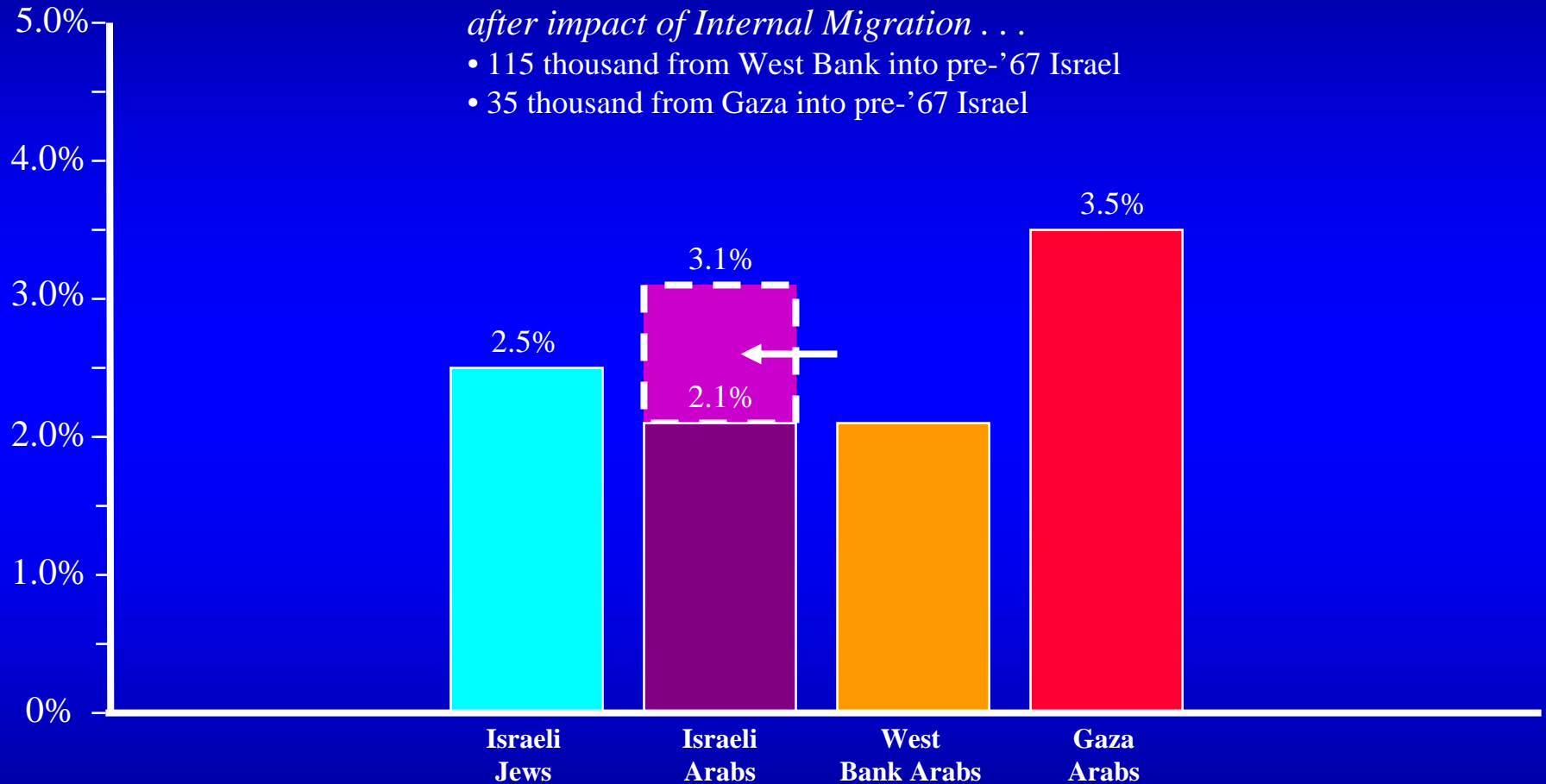
- Growth rates for the West Bank and Gaza were dramatically below levels forecast in the 1997 PA Projection.
- Israeli Jews have maintained their growth rate and are not being *overwhelmed* demographically by Arab growth.

# Population Growth Rates

## Growth Rates by Segment

### 1990 – 2004

Compound Annual  
Growth Rate



- Internal migration into pre-'67 Israel accounted for a significant portion of the high Israeli Arab growth rate.
- Internal migration accounted for only 1.0% of the high Israeli Arab Growth Rate. Without internal migration, the *Natural* Growth Rate for Israeli Arabs was 2.1%.
- 'Refugees' from the PA would increase the Israeli Arab growth rate further and reduce West Bank and Gaza growth rates if 'illegal' migration were fully counted.

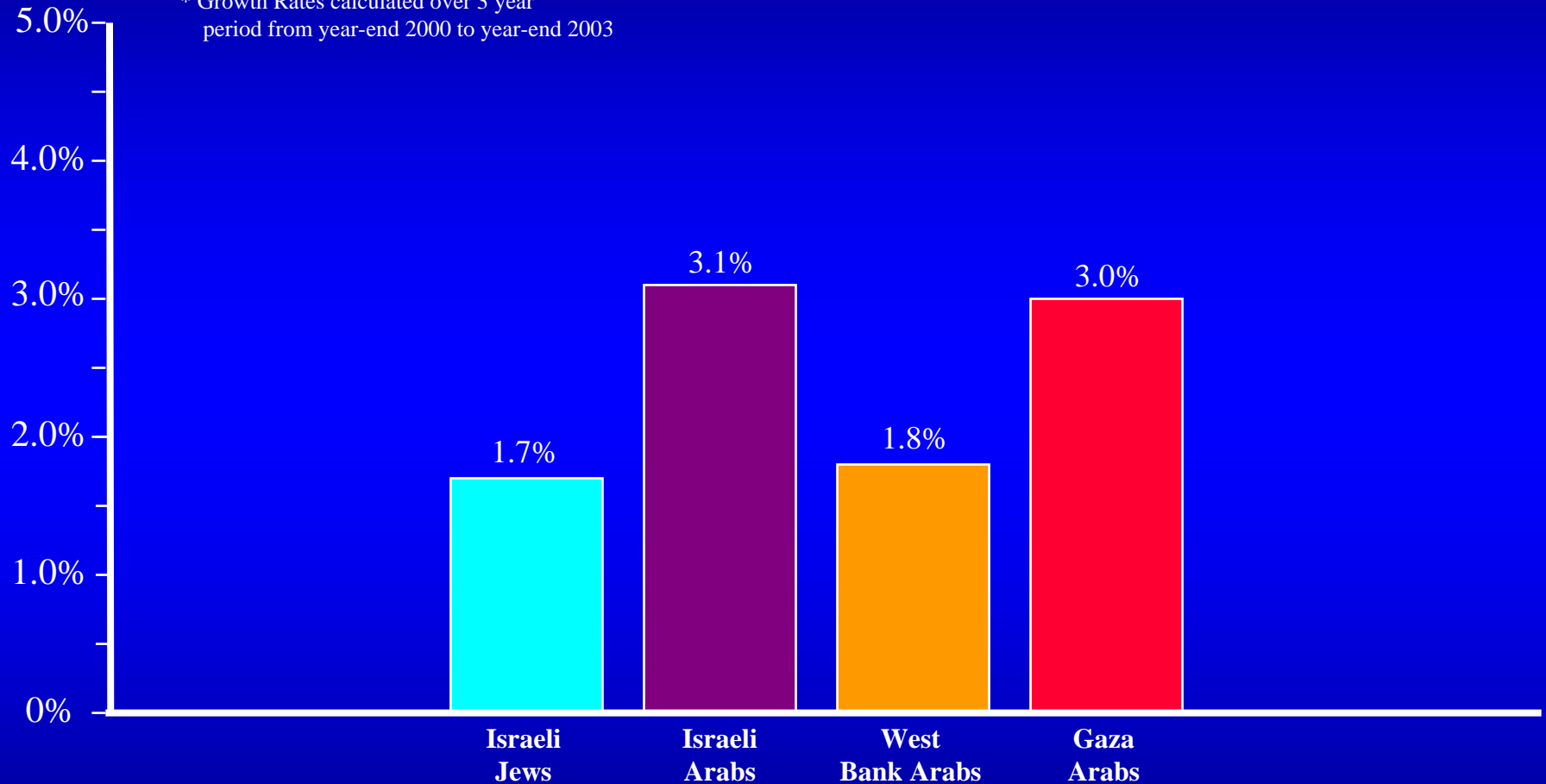
# Population Growth Rates

## Growth Rates by Segment

### 2000 – 2004\*

Compound Annual  
Growth Rate

\* Growth Rates calculated over 3 year  
period from year-end 2000 to year-end 2003



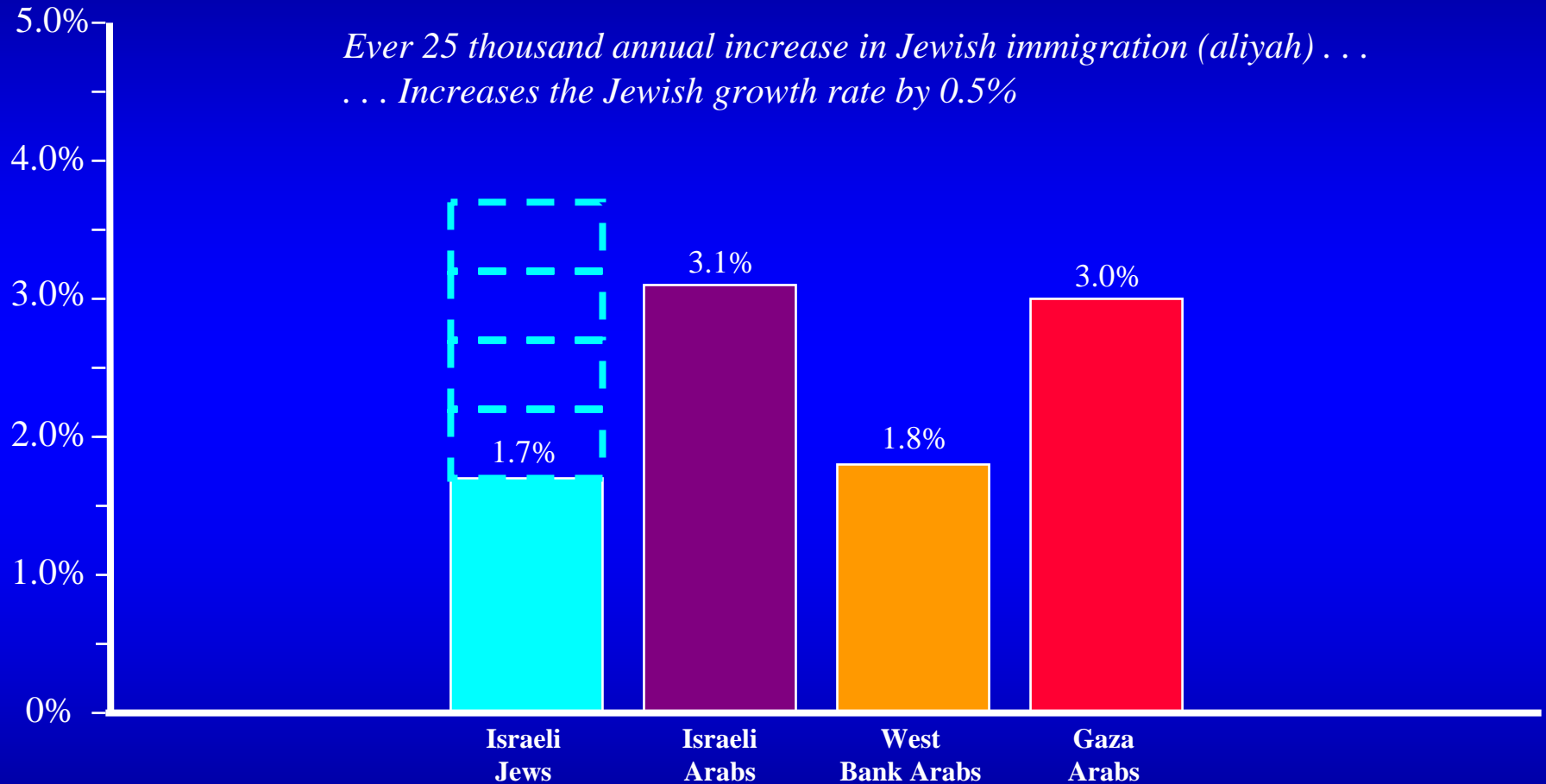
- All groups have experienced a slowdown in growth over the past few years except for the Israeli Arab sector
- Growth rate in West Bank is no faster than growth rate for Israeli Jews
- The difference in growth rates of the listed groups are low enough that demographic change will be slow and gradual

# Population Growth Rates

## Growth Rates by Segment

### 2000 - 2004

Compound Annual  
Growth Rate



- All groups have experienced a slowdown in growth over the past few years except for the Israeli Arab sector
- Growth rate in West Bank is no faster than growth rate for Israeli Jews
- The difference in growth rates of the listed groups are low enough that demographic change will be slow and gradual

**Arab Population**  
**In the West Bank & Gaza**  
*The Million and a half Person Gap*

**7. The Research Team**

# ABC Demographic Study

## USA Research Team

### **Bennett Zimmerman – Project Leader**

- Managing Director, Israel Emerging Growth Fund, L.P.
- Former Strategy Consultant, Bain & Company
- Vice President BMG Music
- M.B.A. Harvard University, B.A. Dartmouth College
- Published article “*Time for a Recount*” concerning Palestinian Arab Population in the West Bank and Gaza

### **Roberta Seid Ph.D.**

- Historian/Research Consultant with *Stand With Us*
- Lecturer at University of Southern California (USC)
- CEO Matrix Medical Management
- M.A. & Ph.D. UC Berkeley in History, B.A. University of Chicago
- Publications include: The Dissolution of Traditional Rural Culture in 19<sup>th</sup> Century France, Garland Series of Outstanding Dissertations  
Never Too Thin: Why Women are at War with Their Bodies, Prentiss Hall 1988

### **Michael L. Wise Ph.D.**

- Founder/Director/ Manager of a wide range of public & private companies in environmental, internet, home communication, metal technologies, specialized foods, and electronic image
- Ph.D. Brandeis University in Theoretical Physics, B.A. Yeshiva University
- Director Rachel Gettenberg Foundation & Coalition for Open Access
- Member of New York Stock Exchange for over 10 years
- Published in numerous journals including *Physical Review* and *Physical Review Letters*

# ABC Demographic Study

## Israel Research Team

### Yoram Ettinger – Israel Team Leader

- President EXOP, Business and Political Consultancy on Middle East Affairs
- Consultant on US and Middle East Affairs to members of Israel's Cabinet and Knesset
- Former Minister for Congressional Affairs at Israel's Embassy in Washington, D.C.
- Former Consul General to Houston, Texas
- Editor, "Straight from the Jerusalem Cloakroom" and "Boardroom"
- M.S. UCLA, B.A. University of Texas at El Paso
- C.P.A. State of California

### Prof. Ezra Sohar

- Professor Emeritus, M.D.
- Published research papers (since 1970) on Arab demography west of the Jordan River
- Head, Heller Institute of Medicine (1967 – 1998)
- Head, Department of Medicine, Tel Hashomer Hospital (1967 – 1994)
- First Chairman and Founding Member, Israel Society of Ecology

### Brig. General (Ret.) David Shahaf

- Former head of Civil Administration for West Bank
- Conducted 1990 Population Survey of Arab Population in West Bank and Gaza
- Expert on methods used by different groups in counting Palestinian Arab Population in West Bank and Gaza
- Former head of the Israeli side of Joint Regional Civil Affairs Subcommittee for the West Bank
- Deputy head of the civilian delegation to the Oslo peace negotiations after the Oslo DOP.

### Dr. David Passig

- Head, Graduate Program in Communication Technology Bar-Ilan University School of Education, Israel
- Expert in mathematical modeling techniques
- Generated Trend Impact Analysis (TIA) for Palestinian Arab Population in the West Bank and Gaza
- Expert in projections analysis (Futurist)

### Avraham Shvout

- Demographer-geographer specializing (since 1980) in the Palestinian Arab population of the West Bank
- Published population estimates for both Jews and Arabs in the West Bank (Judea & Samaria) and Gaza
- Worked on Israel Civil Administration 1990 Population Survey of Arab Population in West Bank and Gaza

**Arab Population**  
**In the West Bank & Gaza**  
*The Million and a half Person Gap*

**8. Observations & A Final Word**

# Observations & Historical Notes

## Projections are often wrong

As recently reported in the New York Times, projections for population do change:

*"The UN Population Division predicted that the world population, now 6.3 billion, would grow to at least 12 billion by 2050...Now it expects population to plateau at 9 billion." The New York Times, August 29, 2004*

Dramatic predictions about Jewish and Arab population growth were also made for Israel back to its pre-state days:

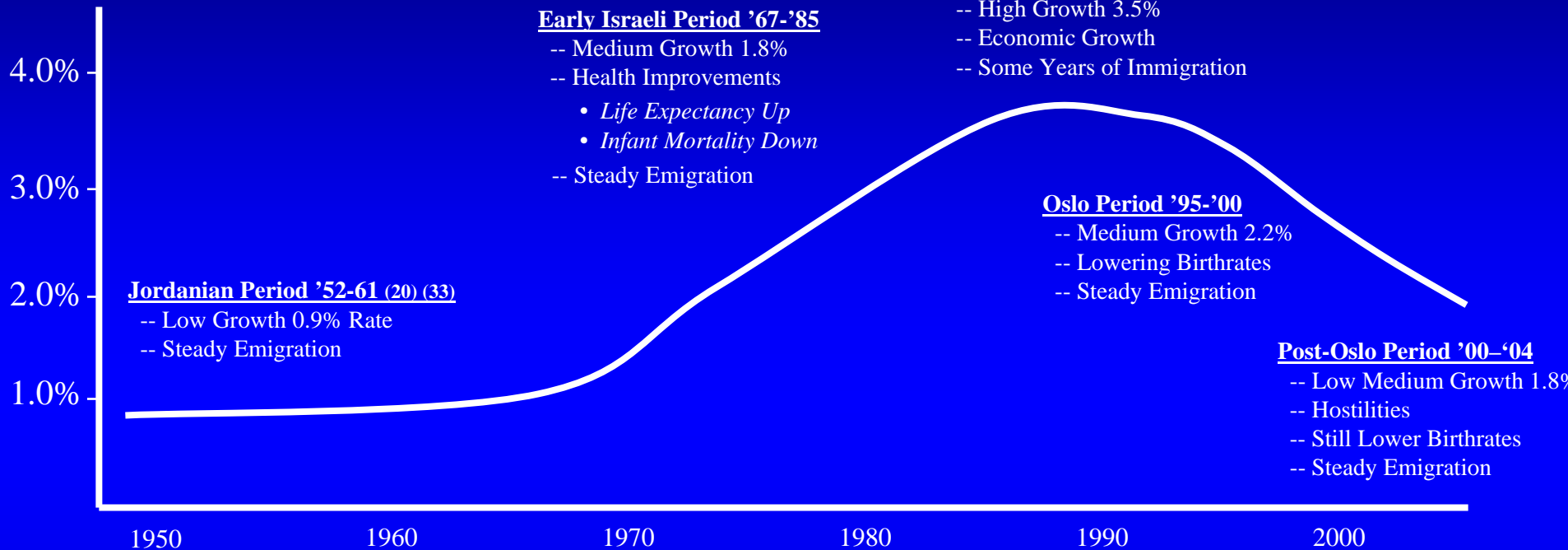
- **In 1900**, the leading Jewish historian/demographer, Shimon Dubnov, cautioned Herzl against pursuing a Jewish State. Dubnov projected a 500K Jewish minority by the year 2000
- **In 1940**, **Prof. Roberto Bacchi**, one of the leading statisticians in the world and Israel's Chief Statistician, projected that by 1970 there would be – in Israel - a minority of 1MN Jews and 4MN Arabs. In 1970 there were 2.6 million Jews and 1.4 million Arabs west of the Jordan River
- **In 1948**, shortly before the declaration of Israel's independence, Prof. Roberto Bacchi, lobbied Ben-Gurion to postpone the establishment of the Jewish State: "By 1968 there will be an Arab majority within the Green Line." In 1968 there was a 14% Arab minority within the Green Line
- **In 1967**, Israeli "prophets of demographic doom pressured Prime Minister Eshkol to give away the West Bank and Gaza, lest there be an Arab majority west of the Jordan River by 1987. In 1987 there was a 38% Arab minority west of the Jordan River.
- **In 1972**, Prof. Bacchi wrote in *Encyclopedia Judaica (Vol 9, pp 474-493)* that Aliya shall decline because Western Jews are reluctant and Soviet Jews are barred. However, 170,000 Jews came from the USSR during the next few years, and nearly 1 million more came during the 1990s
- **1987**, Prof. De La Pergula contended that Soviet Jews would not immigrate to Israel, due to technological, economic, social and cultural reasons (*Yediot Achronot, Oct. 23, 1987*). As noted, almost one million arrived over the next decade!

Projections are a welcome tool in forecasting the future but they must be updated along the way to reflect changes to key assumptions. Applying a linear extrapolation without updating a population model with actual data is a sure path towards the creation of an exponential error.

# Phases of Population Growth

## West Bank (1950-2004)

### Annual Population Growth Rates



### The “Swedish Model”

“ . . . There are four stages, which occur successively. In the first stage, when most of the people still make their living from agriculture, both the birthrate and the mortality rate are high. Raising a child under those circumstances is inexpensive and after just a few years the child contributes to the family income. At this stage, despite the high birth rate – the natural increase is very low or possibly even non-existent. . . . In the second stage improvements in hygiene, medicine, and nutrition bring about a significant drop in the mortality rate. At this stage the natural increase is accelerated. In the third stage, the mortality rate continues to drop while at the same time the birth rate decreases sharply. In the fourth stage, a new balance between birth and mortality is reached -- at a lower level of birth and mortality. In the fourth stage, the natural increase can be very low and even negative as it is in Europe today.”

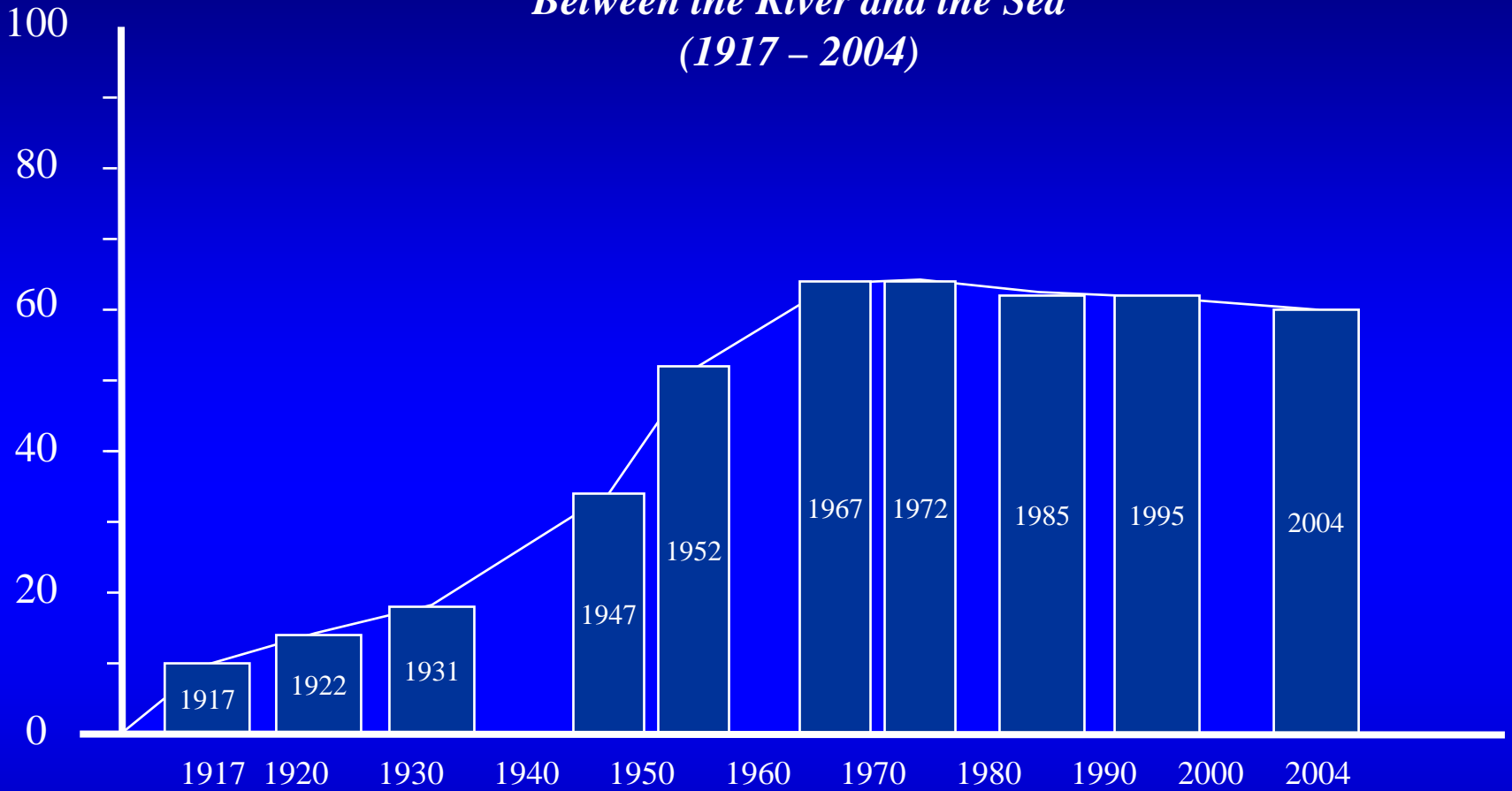
-- Dr. Ezra Sohar in “Demography – Existential Threat or Myth” (32)

- Growth rates in the West Bank are passing through the normal stages of population development
- Going forward, growth rates for the West Bank are approaching levels of a developed Western society and are now equal to growth rates for Israeli Jews.

# Observations

## Jewish Population Percentage *“Between the River and the Sea”* (1917 – 2004)

% Population  
Entire Land



# Observations & Historical Notes

## Caveats to Arab Growth

- Negative Arab Demographic Momentum has been evident since 1970, featuring a significant decline in Arab/Moslem population growth rate, natural increase, crude birth rate and total fertility rates. Arab natural increase has been reduced by accelerated urbanization, by increasing female literacy-school enrollment-careerism, by expanding use of contraceptive and abortion, by later marriage and divorce and by enhanced healthcare. These trends have been confirmed by the Palestinian Ministry of Health for the West Bank and Gaza as well.
- Negative Arab Migration, away from the West Bank (primarily) and away from Gaza, has been a systematic phenomenon, at least since the early 1950s (when the West Bank and Gaza were under Jordanian and Egyptian control respectively). The net negative Arab migration has been a natural and a long term phenomenon in view of the special relationship between the West Bank and Jordan (East Bank). The Gulf States have provided tempting economic opportunities as well.. Southern Jordan and Judea (the southern West Bank) consist of similar demography as do northern Jordan and Samaria (the northern West Bank). Also, most Palestinians have migrated to the area from Egypt, Syria and Lebanon (since 1830), which has facilitated emigration away from the West Bank and Gaza, especially during times of political and security instability.

## Caveats to Jewish Growth

- Aliyah (positive Jewish migration), in addition to natural increase (births minus deaths), has been a key factor in shaping Jewish demography. Aliyah has persisted, annually, since 1882. Many demographers dismissed, in 1987, the option of Aliyah from the USSR shortly before one million Jews migrated to Israel during the 1990s. There is a reservoir of potential immigrants in Russia, Ukraine and other former republics – with increasing number of Jews "coming out of the closet" – as well as in France and the rest of Europe, in South America, Ethiopia, the US, Canada and Australia. Immigration waves to Israel often occur without prior warning. Jewish immigration has persisted during recent years of terror. *“Aliyah has defied security risks, as evidenced by the 1957-1966 wave of Aliya, in spite of escalating Palestinian terrorism, and by the 1968-70 wave, despite the War of Attrition with Egypt due to Aliyah there was an annual 1% increase of the Jewish segment in the overall population of Israel during 1917-1970. Aliyah potential is 50K-100K annually (Prof. Ezra Sohar, Nativ Quarterly, Vol. 2, 1988).*

## Behavior in a Volatile Region

- Unpredictable military, economic and political developments – in the Middle East and beyond – have played a cardinal role in shaping demography west of the Jordan River. Hashemite policy induced a negative Arab migration until 1967; the 1973 rise of oil price yielded a negative Arab migration to Arab oil producing countries; Iraq's invasion of Kuwait and the Gulf War caused a net positive Arab migration (mostly to Jordan!); the demise of the USSR facilitated a one million Jewish positive migration to Israel; the current escalation of Palestinian terrorism and Israeli counter-measures have effected a net Arab negative migration; and Christian Palestinians have been fleeing Muslim domination in Bethlehem.
- Jews and Arabs have reacted differently to abrupt, and sometimes violent, military and economic unpredictable developments. Jewish immigration has persisted during recent years of terror, while negative Arab migration has escalated. Jewish total fertility rate has increased mildly during years of war and terror, while Arab total fertility rate has decreased.

# Arab Population In the West Bank & Gaza *The Million and a half Person Gap* A Final Word

We expect that academicians and policy makers will welcome our Team's work. It is the Team's hope that this study will help to initiate further research on this important topic of demography in the Middle East.

Projections are often wrong.

In the case of the 1997 PA Projection for the West Bank and Gaza, our Team found that the predictions just did not occur according to the *actual* data recorded by Palestinian agencies. The actual data released since 1997 makes it impossible to mathematically reconcile the current PCBS estimate to any set of data, either Palestinian, Israeli or from 3<sup>rd</sup> parties.

Demographers should ask the following *Four Questions* of the PA:

- #1) Why did the PA Central Bureau of Statistics not update its forecast with PA Ministry of Health birth data?
- #2) Why did the PA not use net emigration figures in place of the forecasted 1.5% annual immigration into the West Bank and Gaza?
- #3) Why does the PA not report a *de facto residents only* population figure for the West Bank and Gaza?
- #4) Why does the PA retroactively restate birth data and growth statistics that differ from annually reported figures?

For those who wish to rely on *Palestinian only* data or who wish to define the Palestinian population to include Palestinians living abroad will be able to adopt the results of Scenario #1 and conclude that the January 2004 Arab population for the West Bank and Gaza is 3.06 million. For those who trust the variety of sources we consulted on this project, the lower figures between 2.4 million and 2.7 million become more plausible.

The Team found significant corroborations for the Israeli projections as most accurate and believes they need to be considered by any serious demographer.

Given that the topic of demography in the West Bank and Gaza is contentious we anticipate intense scrutiny of our work. We welcome that scrutiny and demand only that the same scrutiny be applied to the original PA Projection.

## The END

**Arab Population**  
**In the West Bank & Gaza**  
*The Million and a half Person Gap*

**9. Appendices**

# Arab Population In the West Bank & Gaza The Million and a half Person Gap Appendix A

## Palestine Central Bureau of Statistics Census Coverage

[http://www.pcbs.org/phc\\_97/phc\\_covr.aspx](http://www.pcbs.org/phc_97/phc_covr.aspx)

### **Census Coverage**

A comprehensive population enumeration always depends on the essence and the nature of the census. In general, population censuses cover all persons residing within the limits of a certain country, at a specific time. A population census is based on the following:

1. De-facto Approach: Based on the enumeration of individuals according to their existence in the area of enumeration at census moment, regardless of their usual place of residence.
2. De-jure Approach: Based on the enumeration of individuals according to their usual place of residence, regardless of their presence at the census moment.

For The first ever Palestinian census, the de-facto approach was adopted with some exceptions. The census count included the following categories:

#### **A – The Categories underwent complete data collection.**

1. All persons present in the Palestinian territories on the census reference date, irrespective of nationality, purpose of stay and place of residence in the Palestinian territories.
2. All temporarily living abroad (for one year prior to the night of the reference date) and who have a usual place of residence in the Palestinian territories. Those persons are enumerated as parts of their households.
3. All Palestinians studying abroad irrespective of the study period and the period of stay abroad along with all Palestinian detainees in the Israeli jails regardless of the detention period.

**B – Palestinian abroad: Categories underwent data collection on their numbers and sex only This category includes Palestinians who live abroad for more than one year and who have a usual place of residence in the Palestinian territories and have identity cards (except for students and detainees enumerated in the previous category) irrespective of the purpose of stay abroad.**

**Arab Population**  
**In the West Bank & Gaza**  
**The Million and a half Person Gap**  
**Appendix B (Page 1 of 2)**

Central Elections Commission Press Release October 14, 2004

<http://www.elections.ps/Press%20Kit%2014-10/Press%20Release%20-%20English.doc>

**Press Release**

**Central Elections Commission (CEC) Registers Over 67% of Eligible Voters**

The CEC has registered over \*67% of eligible voters, an amount exceeding one million voters. It should be noted however, that approximately 200,000 eligible voters are living abroad and have not been able to engage in the registration process. The registration process, initiated on September 4, 2004, spanned a five week period and came to a close on Wednesday, October 13, 2004. Originally, the expected time-frame of the process was five weeks, however, due to Israeli incursions, invasions, curfews, closures and the implementation of general harassment and intimidation tactics towards the CEC staff, the decision was taken to extend the registration period. The extension was perceived as a necessary step in order to ensure the registration of the maximum number of voters.

***Voter Education & Awareness Campaign***

Over the past two years, the CEC has dedicated its attention towards institution building, staff training, planning and the development of procedures in order to adequately equip itself for the elections process. As elections are a relatively new practice in Palestine, the CEC had to place particular focus on a Voter Education and Public Awareness Campaign which aimed at providing voters with the necessary registration and electoral information in accordance to the Elections Law of 1995. To this end, the CEC carried out the Voter Education and Public Awareness campaign several weeks prior to the registration process. The campaign was based on two principals. The first encompassed the motivation of the electorate to participate in the elections and register and, the second provided information regarding the registration procedures. The campaign took place in coordination with interested organizations, local councils and universities which provided 2,500 volunteers who worked for one week throughout the electoral districts in the West Bank and Gaza Strip. Additionally, the campaign included national and international print and advertising materials such as press releases, brochures, posters, banners, billboards and stickers. Television coverage and radio broadcasting were also utilized as were public forums and conferences.

***Observers***

The Central Elections Commission (CEC) welcomed the participation of domestic and international entities to observe the electoral process. Several parties, entities, Palestinian institutions and international entities applied to observe the registration process.

The following are the numbers of those that participated in the observation process:

Domestic Observers representing 83 Palestinian Institutions: 2,600  
International Observers representing 3 observation entities: 19  
Political Party Agents representing 10 Palestinian Partisan entities: 4,103  
Total Number of Observers and Agents: 6,703

**Arab Population**  
**In the West Bank & Gaza**  
**The Million and a half Person Gap**  
**Appendix B (Page 2 of 2)**

Central Elections Commission Press Release October 14, 2004

<http://www.elections.ps/Press%20Kit%2014-10/Press%20Release%20-%20English.doc>

***Temporary Registration Centers & Registration Services***

The CEC set up numerous, temporary registration centers in order to assist the registration process. The centers served to facilitate a greater number of voters due to the (closer) proximity of the centers to the voters. Voters that were not living in their residences at the time of registration were given the option to register in an electoral district near them, however, at the time of voting, they will have to vote in the electoral center near their residence. Mobile registration units were provided for the disabled and the elderly who were unable to approach the registration centers. Additionally, the registration officers of the CEC with the permission of the administration of the Prisons, registered the detainees who have not been sentenced. Palestinian law clearly stipulates that the Palestinian prisoners who are held without a proper trial or conviction have the right to be registered in the voters' list.

***Jerusalem***

The CEC was confronted with several obstacles throughout the registration process. Jerusalem registration centers were invaded by Israeli troops, staff was intimidated and taken to detention centers for questioning, materials were confiscated, and all six of the registration centers were shut down. It should be noted that there are approximately 200,000 eligible voters in the Jerusalem district who were unable to register due to the Israeli shut down of the centers.

***Obstacles***

In other areas registration centers were shut down due to curfews in villages and cities. Moreover, checkpoints and closures further obstructed the process which disrupted normal working hours. Often times, registration officers would have to close registration centers due to clashes that took place nearby, between the Israeli Occupation Army and Palestinian civilians.

Although, the process of individuals registering their information has come to a close, the registration process itself has not ended. The data entry of the aforementioned information is taking place. In the next phase of Exhibition and Challenges the preliminary Voters' List will be publicized followed by the publication of the Final Voters' List. Finally, the polling phase of the electoral process will be implemented. It should be noted that a date for elections has not been determined at the current time.

***Adjustments for Eligible Voters who were unable to register***

The CEC is facilitating registration for those that were unable to register because they were abroad or unable to register due to within the registration deadline.

*\* This percentage does not include the Jerusalem electoral district due to the Israeli closures of the registration centers in Jerusalem.*

# Arab Population In the West Bank & Gaza *The Million and a half Person Gap*

## Appendix C (Page 1 of 3) Population Pyramids Backward & Forward Dated

... adjusted backward to Early 1996

	Deaths+	Migration^	Total	
0-3	345	0.4	1.8	347
4-8	345	0.4	1.8	347
9-13	291	0.4	1.5	293
14-18	259	0.4	1.4	261
19-23	204	0.4	1.1	206
24-28	159	0.4	0.8	160
29-33	132	0.4	0.7	133
34-38	100	0.4	0.5	101
39-43	77	0.6	0.4	78
44-48	61	0.6	0.3	62
49-53	48	0.6	0.3	49
54-58	48	0.6	0.3	49
59-63	41	0.6	0.2	42
64-68	32	0.6	0.2	33
69-73	18	0.6	0.1	19
74+	27	0.6	0.1	28
	2,186	8.2	11.6	2,206
less than 18			54.2%	1,196
18 plus			45.8%	1,010

PA MOH Births\*  
PA MOH Deaths+  
Actual Border Data^

PA Ministry of Health 1996 Population Pyramid – Year End 1996

	Female %	Male %	Female	Male	Total
0-4	9.1	9.9	207	225	431
5-9	7.4	7.8	168	177	345
10-14	6.2	6.6	141	150	291
15-19	5.3	6.1	120	138	259
20-24	4.3	4.7	98	107	204
25-29	3.3	3.7	75	84	159
30-34	2.8	3	64	68	132
35-39	2.2	2.2	50	50	100
40-44	1.7	1.7	39	39	77
45-49	1.4	1.3	32	30	61
50-54	1.1	1	25	23	48
55-59	1.2	0.9	27	20	48
60-64	1	0.8	23	18	41
65-69	0.7	0.7	16	16	32
70-74	0.4	0.4	9	9	18
75+	0.6	0.6	14	14	27
	48.7	51.4	1,105	1,167	2,272
less than 18				54%	1,222
18 plus				46%	1,050

... adjusted forward to Year End 2004

	Deaths+	Migration^	Total	
0-7*	770	-3.7	-21.8	745
8-12	431	-3.7	-12.2	415
13-17	345	-3.7	-9.7	332
18-22	291	-3.7	-8.2	279
23-27	259	-3.7	-7.3	248
28-32	204	-3.7	-5.8	195
33-37	159	-3.7	-4.5	151
38-42	132	-3.7	-3.7	124
43-47	100	-3.7	-2.8	93
48-52	77	-3.7	-2.2	71
53-57	61	-3.7	-1.7	56
58-62	48	-5.6	-1.3	41
63-67	48	-5.6	-1.3	41
68-72	41	-5.6	-1.2	34
73-77	32	-5.6	-0.9	25
78-82	18	-5.6	-0.5	12
83+	27	-5.6	-0.8	21
	3,043	-74.0	-86.0	2,883
less than 18			52%	1,492
18 plus			48%	1,391

PA MOH Births\*  
PA MOH Deaths+  
Actual Border Data^

Source: Palestine Ministry of Health, Health Status in Palestine Annual Report, 1996, Annex 2 (5), Team performed Backdating and Forward Dating Analysis with PA MOH Data for Births & Deaths (5) and Israel Border Data for Migration (6)

ICBS Population Pyramid Begin 1990

West Bank		Gaza		Total		
0 thru 4	180.6	19.7%	131.2	21.5%	311.8	20.4%
5 thru 14	255.1	27.9%	174.1	28.5%	429.2	28.1%
15 thru 19	88.7	9.7%	59.9	9.8%	148.6	9.7%
20 thru 24	87.6	9.6%	53.8	8.8%	141.4	9.3%
25 thru 34	138.7	15.1%	86.1	14.1%	224.8	14.7%
35 thru 44	52.8	5.8%	40.2	6.6%	93.0	6.1%
45 thru 54	40.4	4.4%	25.8	4.2%	66.2	4.3%
55 thru 64	37.3	4.1%	22.4	3.7%	59.7	3.9%
65 Plus	34.7	3.8%	17.3	2.8%	52.0	3.4%
	915.9	100.0%	610.8	100.0%	1,526.7	100.0%
under 18	488.9	53.4%	341.2	55.9%	830.2	54.4%
18 plus	427.0	46.6%	269.6	44.1%	696.5	45.6%

... adjusted forward to Year End 1995

	Deaths+	Migration^	Total		
0 thru 5	467.5	-3.0	6.2	470.7	23.9%
6 thru 10	311.8	-3.0	4.1	312.9	15.9%
11 thru 20	429.2	-6.0	5.7	428.9	21.7%
21 thru 25	148.6	-3.0	2.0	147.6	7.5%
26 thru 30	141.4	-3.0	1.9	140.3	7.1%
31 thru 40	224.8	-6.0	3.0	221.8	11.2%
41 thru 50	93.0	-6.0	1.2	88.3	4.5%
51 thru 60	66.2	-6.0	0.9	61.1	3.1%
61 thru 70	59.7	-6.0	0.8	54.5	2.8%
71 Plus	52.0	-6.0	0.7	46.7	2.4%
	1,994.2	-47.8	26.4	1,972.8	100.0%
under 18				1,083.9	54.9%
18 plus				888.9	45.1%

... adjusted forward to Year End 2004

	Deaths+	Migration^	Total	
0 thru 8*	671.6	-8.9	-22.4	640.2
9 thru 14	470.7	-4.5	-15.7	450.5
15 thru 19	312.9	-4.5	-10.4	298.0
20 thru 29	428.9	-8.9	-14.3	405.7
30 thru 34	147.6	-4.5	-4.9	138.2
35 thru 39	140.3	-4.5	-4.7	131.1
40 thru 49	221.8	-8.9	-7.4	205.5
50 thru 59	88.3	-8.9	-2.9	76.4
60 thru 69	61.1	-8.9	-2.0	50.1
70 thru 79	54.5	-8.9	-1.8	43.8
80 Plus	46.7	-9.7	-1.6	35.4
	2,644.4	-81.1	-88.3	2,475
less than 18			54%	1,329
18 plus			46%	1,146

Source: Israel Central Bureau of Statistics, The Population in Judea & Samaria & Gaza, By Age and Sex, 1985-1993, 1993, Tables 1 & 2 (8), Team performed Backdating and Forward Dating Analysis with Israel Central Bureau of Statistics 1990-1993. (8) PA Ministry of Health Births 1994 – 2003 aligned to Israel data (5) and Israel Border Data for Migration (6)

# Arab Population In the West Bank & Gaza The Million and a half Person Gap

Appendix C (Page 2 of 3)

## Population Pyramids Backward & Forward Dated PA Census, December 1997

... adjusted backward to Dec 1995					PA Dec 1997 Census							... adjusted forward to Year End 2004				
				Total	West Bank		Gaza		Total						Total	
	Deaths+	Migration^										Deaths+	Migration^			
0-2	287,263	1,200.7	2,859.2	291,323	0 thru 4	280,454	17.5%	198,318	19.8%	478,772	18.4%	0-7*	669,310	-7,234	-18,911	643,165
3-7	422,851	1,200.7	4,208.8	428,260	0	<u>56,091</u>	3.5%	<u>39,664</u>	4.0%	95,754	3.7%	7-11	478,772	-3,946	-13,527	461,299
8-12	321,573	1,200.7	3,200.7	325,974	1	<u>56,091</u>	3.5%	<u>39,664</u>	4.0%	95,754	3.7%	12-16	422,851	-3,946	-11,947	406,958
13-17	273,351	1,200.7	2,720.7	277,272	2	<u>56,091</u>	3.5%	<u>39,664</u>	4.0%	95,754	3.7%	17-21	321,573	-3,946	-9,086	308,541
18-22	236,656	1,200.7	2,355.5	240,212	3	<u>56,091</u>	3.5%	<u>39,664</u>	4.0%	95,754	3.7%	22-26	273,351	-3,946	-7,723	261,682
23-27	190,903	1,200.7	1,900.1	194,004	4	<u>56,091</u>	3.5%	<u>39,664</u>	4.0%	95,754	3.7%	27-31	236,656	-3,946	-6,686	226,024
28-32	165,363	1,200.7	1,645.9	168,210	5 thru 9	247,158	15.4%	175,693	17.5%	422,851	16.3%	32-36	190,903	-3,946	-5,394	181,563
33-37	123,770	1,200.7	1,231.9	126,203	10 thru 14	192,680	12.0%	128,893	12.9%	321,573	12.4%	37-41	165,363	-3,946	-4,672	156,745
38-42	88,668	1,200.7	882.5	90,751	15 thru 19	168,708	10.5%	104,643	10.4%	273,351	10.5%	42-46	123,770	-3,946	-3,497	116,327
43-47	68,351	1,200.7	680.3	70,232	15	<u>33,742</u>	2.1%	<u>20,929</u>	2.1%	54,670	2.1%	47-51	88,668	-3,946	-2,505	82,217
48-52	55,998	1,200.7	557.4	57,756	16	<u>33,742</u>	2.1%	<u>20,929</u>	2.1%	54,670	2.1%	52-56	68,351	-3,946	-1,931	62,474
53-57	41,984	1,200.7	417.9	43,603	17	<u>33,742</u>	2.1%	<u>20,929</u>	2.1%	54,670	2.1%	57-61	55,998	-3,946	-1,582	50,470
58-62	41,903	1,200.7	417.1	43,521	18	<u>33,742</u>	2.1%	<u>20,929</u>	2.1%	54,670	2.1%	62-66	41,984	-4,604	-1,186	36,194
63+	90,219	1,372.2	898.0	92,489	19	<u>33,742</u>	2.1%	<u>20,929</u>	2.1%	54,670	2.1%	67-71	41,903	-4,933	-1,184	35,787
Not Stated	1,307	171.5	13.0	1,492	20 thru 24	149,513	9.3%	87,143	8.7%	236,656	9.1%	72 Plus	90,219	-4,933	-2,549	82,737
	2,410,160	17,152	23,989.0	2,451,301	25 thru 29	125,164	7.8%	65,739	6.6%	190,903	7.3%	Not Stated	1,307	-658	-37	612
					30 thru 34	104,636	6.5%	60,727	6.1%	165,363	6.4%		3,270,979	-65,767	-74,354	3,130,858
					35 thru 39	80,194	5.0%	43,576	4.4%	123,770	4.8%					
less than 18			54%	1,322,830	40 thru 44	55,807	3.5%	32,861	3.3%	88,668	3.4%	less than 18				51%
18 plus			46%	1,128,471	45 thru 49	41,601	2.6%	26,750	2.7%	68,351	2.6%	18 plus				49%
					50 thru 54	36,619	2.3%	19,379	1.9%	55,998	2.2%					
					55 thru 59	27,831	1.7%	14,153	1.4%	41,984	1.6%					
					60 thru 64	27,363	1.7%	14,540	1.5%	41,903	1.6%					
					65 Plus	61,237	3.8%	28,982	2.9%	90,219	3.5%					
					Not Stated	1,135	0.1%	172	0.0%	1,307	0.1%					
					Total Counted in Census	1,600,100	100.0%	1,001,569	100.0%	2,601,669	100.0%					
					Less than 18	821,517	51.3%	565,690	56.5%	1,387,207						
					18 and Above	778,583	48.7%	435,879	43.5%	1,214,462						

Source: Population by Age Groups in Years, Region, and Sex, 1997 Census (18), Team performed Backdating and Forward Dating Analysis with PA MOH Data for Births & Deaths (5) and Israel Border Data for Migration (6)

# Arab Population In the West Bank & Gaza The Million and a half Person Gap Appendix C (Page 3 of 3)

## Population Pyramids Backward & Forward Dated

### PA Central Bureau of Statistics, 2003

PCBS Distribution of Population by Age, 2003					... adjusted forward to Year End 2004					
	Female %	Male %	Female	Male	Total		Deaths+	Migration^	Total	
0-4	18%	18%	323,867	337,213	661,080	0	101,647	-204	-309	101,135
5-9	15%	15%	280,089	291,184	571,273	1-5	661,080	-611	-2,008	658,461
10-14	13%	13%	239,169	246,835	486,004	6-10	571,273	-611	-1,735	568,927
15-19	11%	11%	194,793	202,557	397,350	11-15	486,004	-611	-1,476	483,917
20-24	9%	9%	161,650	168,201	329,851	16-20	397,350	-611	-1,207	395,532
25-29	7%	8%	136,837	142,122	278,959	21-25	329,851	-611	-1,002	328,238
30-34	6%	6%	114,538	118,827	233,365	26-30	278,959	-611	-847	277,501
35-39	5%	5%	94,592	100,060	194,652	31-35	233,365	-611	-709	232,045
40-44	4%	4%	76,309	82,103	158,412	36-40	194,652	-611	-591	193,450
45-49	3%	3%	55,201	59,057	114,258	41-45	158,412	-611	-481	157,320
50-54	2%	2%	41,136	42,663	83,799	46-50	114,258	-611	-347	113,300
55-59	2%	2%	33,429	30,691	64,120	51-55	83,799	-611	-255	82,933
60-64	1%	1%	27,548	22,379	49,927	56-60	64,120	-611	-195	63,314
65-69	1%	1%	24,129	18,690	42,819	61-65	49,927	-611	-152	49,164
70-74	1%	1%	18,815	14,215	33,030	66-70	42,819	-611	-130	42,078
75+	1%	1%	21,931	17,065	38,996	71-75	33,030	-713	-100	32,217
	100%	100%	1,844,033	1,893,862	3,737,895	76+	38,996	-713	-118	38,165
							3,839,542	-10,184	-11,664	3,817,694
less than 18				54%	1,956,767	less than 18			52%	1,970,651
18 plus				46%	1,781,128	18 plus			48%	1,847,043

Source: Palestine Central Bureau of Statistics Website, Mid Year Projected Population in the Palestinian Territory by Governate 1997 – 2004 (19), Team performed Backdating and Forward Dating Analysis with PA MOH Data for Births & Deaths (5) and Israel Border Data for Migration (6)

**Arab Population**  
**In the West Bank & Gaza**  
*The Million and a half Person Gap*  
Appendix D

UNRWA Population Pyramid  
June 2000

**Registered Palestine Refugee Population by Age Group and Field as of June 2000 (Source: UNRWA)**

Age Distribution	West Bank		Gaza	
Less than 6	58,542	10.0%	145,191	17.6%
6 thru 15	140,027	24.0%	230,778	28.0%
16 thru 25	110,185	18.9%	145,975	17.7%
16	<u>11,019</u>	<u>1.9%</u>	<u>14,598</u>	<u>1.8%</u>
17	<u>11,019</u>	<u>1.9%</u>	<u>14,598</u>	<u>1.8%</u>
18	<u>11,019</u>	<u>1.9%</u>	<u>14,598</u>	<u>1.8%</u>
19	<u>11,019</u>	<u>1.9%</u>	<u>14,598</u>	<u>1.8%</u>
20	<u>11,019</u>	<u>1.9%</u>	<u>14,598</u>	<u>1.8%</u>
21	<u>11,019</u>	<u>1.9%</u>	<u>14,598</u>	<u>1.8%</u>
22	<u>11,019</u>	<u>1.9%</u>	<u>14,598</u>	<u>1.8%</u>
23	<u>11,019</u>	<u>1.9%</u>	<u>14,598</u>	<u>1.8%</u>
24	<u>11,019</u>	<u>1.9%</u>	<u>14,598</u>	<u>1.8%</u>
25	<u>11,019</u>	<u>1.9%</u>	<u>14,598</u>	<u>1.8%</u>
26 thru 35	86,591	14.9%	103,285	12.5%
36 thru 45	62,471	10.7%	70,105	8.5%
46 thru 55	46,499	8.0%	52,074	6.3%
Greater than 55	78,694	13.5%	77,214	9.4%
	583,009	100.0%	824,622	100.0%
Less than 18		37.8%		49.1%
18 and Above		62.2%		50.9%

# Arab Population In the West Bank & Gaza

## The Million and a half Person Gap

### Appendix E (Page 1 of 2)

#### Population by Segment 1967 - 2004

	1967					1985					1990				
		%	Jews In Israel %	CumJews %	Non PA %		%	Jews In Israel %	CumJews %	Non PA %		%	Jews In Israel %	CumJews %	Non PA %
<b>Jews</b>	2,384	64.1%	85.9%			3,517	62.8%	82.4%			3,947	61.5%	81.9%		
<b>Jewish Affiated/Immig.</b>	0	0.0%	0.0%			0	0.0%	0.0%			0	0.0%	0.0%		
<b>Total Jewish Affiliated</b>	2,384	64.1%	85.9%	100.0%	64.1%	3,517	62.8%	82.4%	100.0%	62.8%	3,947	61.5%	81.9%	100.0%	61.5%
<b>Druze</b>	32	0.9%	1.2%	98.7%	0.9%	72	1.3%	1.7%	98.0%	1.3%	83	1.3%	1.7%	98.0%	1.3%
<b>Christian Arabs</b>	71	1.9%	2.6%	95.9%	1.9%	99	1.8%	2.3%	95.4%	1.8%	115	1.8%	2.4%	95.2%	1.8%
<b>General Muslim Arabs</b>	290	7.8%	10.4%	85.9%		578	10.3%	13.5%	82.4%		678	10.6%	14.1%	81.9%	
<b>Arabs</b>	393	10.6%	14.1%	85.9%		749	13.4%	17.6%	82.4%		875	13.6%	18.1%	81.9%	
<b>Total Israel</b>	2,776	74.7%	100.0%	85.9%		4,266	76.2%	100.0%	82.4%		4,822	75.2%	100.0%	81.9%	
<b>Arabs in West Bank</b>	586	15.8%		70.9%		805	14.4%		69.4%		950	14.8%		68.4%	
<b>Arabs in Gaza</b>	356	9.6%		64.1%		526	9.4%		62.8%		643	10.0%		61.5%	
<b>Arabs in W.Bank/Gaza</b>	942	25.3%		64.1%		1,331	23.8%		62.8%		1,593	24.8%		61.5%	
<b>Total Land</b>	3,718	100.0%		64.1%		5,597	100.0%		62.8%		6,415	100.0%		61.5%	
					66.9%					65.9%					64.6%

	<u>Growth</u> <u>'67-'85</u>	<u>Growth</u> <u>'85-'90</u>
<b>Jews</b>	2.2%	2.3%
<b>Jerish Affiliated/New Immigrants</b>		
<b>Total Jewish Affiliated</b>	2.2%	2.3%
<b>Druze</b>	4.6%	2.8%
<b>Christian Arabs</b>	1.9%	2.9%
<b>General Muslim Arabs</b>	3.9%	3.2%
<b>Arabs</b>	3.7%	3.2%
<b>Total Israel</b>	2.4%	2.5%
<b>Arabs in JS</b>	1.8%	3.4%
<b>Arabs in Gaza</b>	2.2%	4.1%
<b>Arabs in W.Bank/Gaza</b>	1.9%	3.7%
<b>Total Land</b>	2.3%	2.8%

# Arab Population In the West Bank & Gaza

## The Million and a half Person Gap

### Appendix E (Page 2 of 2)

#### Population by Segment 1967 - 2004

	1995					2000					2003				
		%	Jews In Israel %	CumJews %	Non PA %		%	Jews In Israel %	CumJews %	Non PA %		Land %	Jews In Israel %	CumJews %	Non PA %
<b>Jews</b>	4,522	59.6%	80.6%			4,955	57.5%	77.8%			5,165	56.4%	76.6%		
<b>Jewish Affiated/Immig.</b>	85	1.1%	1.5%			225	2.6%	3.5%			281	3.1%	4.2%		
<b>Total Jewish Affiliated</b>	4,607	60.7%	82.1%	100.0%	60.7%	5,181	60.2%	81.4%	100.0%	60.2%	5,447	59.5%	80.7%	100.0%	59.5%
<b>Druze</b>	92	1.2%	1.6%	98.0%	1.2%	104	1.2%	1.6%	98.0%	1.2%	111	1.2%	1.6%	98.0%	1.2%
<b>Christian Arabs</b>	101	1.3%	1.8%	96.0%	1.3%	111	1.3%	1.7%	96.0%	1.3%	116	1.3%	1.7%	96.0%	1.3%
<b>General Muslim Arabs</b>	811	10.7%	14.5%	82.1%		970	11.3%	15.2%	81.4%		1,073	11.7%	15.9%	80.7%	
<b>Arabs</b>	1,005	13.2%	17.9%	82.1%		1,185	13.8%	18.6%	81.4%		1,299	14.2%	19.3%	80.7%	
<b>Total Israel</b>	5,612	74.0%	100.0%	82.1%		6,366	73.9%	100.0%	81.4%		6,746	73.7%	100.0%	80.7%	
<b>Arabs in West Bank</b>	1,151	15.2%		68.1%		1,280	14.9%		67.8%		1,350	14.7%		67.3%	
<b>Arabs in Gaza</b>	821	10.8%		60.7%		966	11.2%		60.2%		1,056	11.5%		59.5%	
<b>Arabs in W.Bank/Gaza</b>	1,973	26.0%		60.7%		2,246	26.1%		60.2%		2,405	26.3%		59.5%	
<b>Total Land</b>	7,585	100.0%		60.7%		8,611	100.0%		60.2%		9,151	100.0%		59.5%	
					63.3%					62.7%					62.0%

	<u>Growth '90-'95</u>	<u>Growth '95-'00</u>	<u>Growth '00-'03</u>	<u>Growth '90-'03</u>	<u>Growth '85-'03</u>
<b>Jews</b>	2.8%	1.8%	1.4%	2.1%	2.2%
<b>Jerish Affiliated/New Immigrants</b>					
<b>Total Jewish Affiliated</b>	3.1%	2.4%	1.7%	2.5%	2.5%
<b>Druze</b>	2.2%	2.4%	2.2%	2.3%	2.4%
<b>Christian Arabs</b>	-2.4%	1.9%	1.3%	0.1%	0.8%
<b>General Muslim Arabs</b>	3.7%	3.6%	3.4%	3.6%	3.5%
<b>Arabs</b>	2.8%	3.4%	3.1%	3.1%	3.1%
<b>Total Israel</b>	3.1%	2.6%	2.0%	2.6%	2.6%
<b>Arabs in JS</b>	3.9%	2.1%	1.8%	2.7%	2.9%
<b>Arabs in Gaza</b>	5.0%	3.3%	3.0%	3.9%	3.9%
<b>Arabs in W.Bank/Gaza</b>	4.4%	2.6%	2.3%	3.2%	3.3%
<b>Total Land</b>	3.4%	2.6%	2.0%	2.8%	2.8%

Source: Israel Central Bureau of Statistics Website, ICBS Annual Yearbook 1996, Team Average of Scenario #2 and #3 less Internal Migration Statistics from Israel Ministry of Interior (7) (30) (31)

# Arab Population In the West Bank & Gaza

## The Million and a half Person Gap

### Appendix F (Page 1 of 4)

#### Spectrum Policy Modeling Systems Data Summary: Scenario #1

Scenario #1: Update of 1997 PA Project	1997	1998	1999	2000	2001	2002	2003
<b>Fertility</b>							
Input TFR	6.01	5.58	4.41	4.31	4.05	4.05	3.89
GRR	2.93	2.72	2.15	2.1	1.98	1.98	1.9
NRR	2.81	2.61	2.07	2.02	1.9	1.91	1.83
Mean Age of Childbearing	28.9	28.9	29	29.1	29.1	29.1	29
Child-woman ratio	0.86	0.85	0.79	0.74	0.69	0.64	0.58
Fertility table: Average							
<b>Mortality</b>							
Male LE	69.7	69.9	70.1	70.3	70.5	70.7	70.9
Female LE	72.9	73.1	73.3	73.5	73.7	73.9	74.1
Total LE	71.3	71.5	71.7	71.9	72.1	72.3	72.5
IMR	24.6	23.9	23.2	22.5	21.9	21.2	20.5
U5MR	29.5	28.6	27.7	26.8	25.9	25	24.1
Life table: Coale-Demeny West							
<b>Immigration (Thousands)</b>							
Male immigration	0	-1.51	-11.79	-1.4	-4.96	-5.5	-5.83
Female immigration	0	-1.51	-11.79	-1.4	-4.96	-5.5	-5.83
Total immigration	0	-3.03	-23.59	-2.79	-9.91	-11	-11.66
<b>Vital Rates</b>							
CBR per 1000	41.9	38.9	30.9	30.5	29	29.3	28.6
CDR per 1000	5.1	4.7	4.5	4.4	4.3	4.2	4.1
RNI percent	3.68	3.42	2.64	2.62	2.47	2.51	2.45
GR percent	3.68	3.31	1.79	2.52	2.13	2.14	2.06
Doubling time	19.2	21.3	39.1	27.9	32.9	32.8	34
<b>Annual births and deaths (Thousands)</b>							
Births	109	104.86	85.38	85.75	83.35	86.15	85.82
Deaths	13.19	12.76	12.35	12.29	12.27	12.35	12.37
<b>Population (Millions)</b>							
Total population	2.6	2.69	2.76	2.81	2.88	2.94	3
Male population	1.32	1.37	1.4	1.43	1.46	1.49	1.53
Female population	1.28	1.32	1.36	1.38	1.41	1.44	1.47
Percent 0-4	18.41	18.12	17.21	16.22	15.3	14.41	13.44
Percent 5-14	28.63	28.89	29.34	29.75	30.04	30.19	30.29
Percent 15-49	44.11	44.26	44.75	45.34	45.98	46.71	47.55
Percent 15-64	49.49	49.56	50.02	50.6	51.26	52.03	52.94
Percent 65 and over	3.47	3.43	3.43	3.42	3.41	3.37	3.33
Percent females 15-49	43.41	43.56	44.06	44.66	45.31	46.04	46.88
Sex ratio	103.34	103.36	103.39	103.44	103.46	103.5	103.54
Dependency ratio	1.02	1.02	1	0.98	0.95	0.92	0.89
Median age	16	16	17	17	17	18	18

# Arab Population In the West Bank & Gaza

## The Million and a half Person Gap

### Appendix F (Page 2 of 4)

#### Spectrum Policy Modeling Systems Data Summary: Scenario #2

Scenario #2 Resident Only Update								
Fertility	1996	1997	1998	1999	2000	2001	2002	2003
Input TFR	6.06	6.01	5.58	4.41	4.31	4.05	4.05	3.89
GRR	2.96	2.93	2.72	2.15	2.1	1.98	1.98	1.9
NRR	2.82	2.81	2.61	2.07	2.02	1.9	1.91	1.83
Mean Age of Childbearing	28.9	28.9	28.9	29	29.1	29.1	29.1	29
Child-woman ratio	0.9	0.89	0.87	0.81	0.75	0.68	0.63	0.58
Fertility table: Average								
Mortality								
Male LE	69.3	69.6	69.9	70.1	70.3	70.5	70.7	70.9
Female LE	72.5	72.8	73.1	73.3	73.5	73.7	73.9	74.1
Total LE	70.9	71.2	71.5	71.7	71.9	72.1	72.3	72.4
IMR	26	24.8	23.9	23.2	22.5	21.9	21.2	20.5
U5MR	31.4	29.9	28.6	27.7	26.8	25.9	25	24.1
Life table: Coale-Demeny West								
Immigration (Thousands)								
Male immigration	-5.81	-6.19	-1.51	-11.79	-1.4	-4.96	-5.49	-5.83
Female immigration	-5.81	-6.19	-1.51	-11.79	-1.4	-4.96	-5.49	-5.83
Total immigration	-11.61	-12.38	-3.03	-23.59	-2.79	-9.91	-10.98	-11.66
Vital Rates								
CBR per 1000	40.8	40.7	38.1	30.4	30.2	28.7	29.2	28.6
CDR per 1000	5.2	4.9	4.8	4.5	4.4	4.3	4.2	4.2
RNI percent	3.56	3.58	3.33	2.59	2.57	2.44	2.49	2.44
GR percent	3.05	3.05	3.21	1.63	2.46	2.06	2.07	2
Doubling time	23	23.1	22	42.8	28.5	34	33.8	34.9
Annual births and deaths (Thousands)								
Births	92.73	95.46	91.74	74.96	75.58	73.74	76.44	76.37
Deaths	11.75	11.6	11.44	11.08	11.04	11.03	11.11	11.15
Population (Millions)								
Total population	2.27	2.34	2.41	2.47	2.51	2.57	2.62	2.67
Male population	1.17	1.2	1.24	1.27	1.29	1.32	1.34	1.37
Female population	1.11	1.14	1.17	1.2	1.22	1.25	1.28	1.3
Percent 0-4	18.98	18.88	18.52	17.55	16.34	15.08	14.09	13.27
Percent 5-14	27.97	27.93	28.04	28.42	28.93	29.53	29.81	29.88
Percent 15-49	43.66	43.95	44.31	44.92	45.62	46.28	46.97	47.69
Percent 15-64	49.65	49.81	50.06	50.63	51.3	51.95	52.63	53.36
Percent 65 and over	3.4	3.39	3.38	3.4	3.42	3.44	3.47	3.49
Percent females 15-49	43.12	43.34	43.65	44.24	44.92	45.58	46.26	46.98
Sex ratio	105.54	105.48	105.42	105.36	105.35	105.29	105.25	105.22
Dependency ratio	1.01	1.01	1	0.97	0.95	0.92	0.9	0.87
Median age	16	16	17	17	17	17	18	18

# Arab Population In the West Bank & Gaza

## The Million and a half Person Gap

### Appendix F (Page 3 of 4)

#### Spectrum Policy Modeling Systems Data Summary: Scenario #3

Scenario #3: Update of Israel Projection	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
<b>Fertility</b>															
Input TFR	6.44	6.44	6.45	6.46	6.41	7.4	6.7	6.06	6.01	5.58	4.41	4.31	4.05	4.05	3.89
GRR	3.14	3.14	3.15	3.15	3.13	3.61	3.27	2.96	2.93	2.72	2.15	2.1	1.98	1.98	1.9
NRR	2.93	2.95	2.96	2.98	2.97	3.43	3.11	2.82	2.81	2.61	2.07	2.02	1.9	1.91	1.83
Mean Age of Childbearing	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	29	29.1	29.1	29.1	29
Child-woman ratio	1.01	1.01	1	0.99	0.98	0.98	1	0.98	0.95	0.91	0.82	0.72	0.66	0.6	0.55
Fertility table: Average															
<b>Mortality</b>															
Male LE	66.2	66.8	67.3	67.8	68.3	68.6	68.9	69.3	69.6	69.9	70.1	70.3	70.5	70.7	70.9
Female LE	69.6	70.1	70.6	71.1	71.6	71.9	72.2	72.5	72.8	73.1	73.3	73.5	73.7	73.9	74.1
Total LE	67.9	68.4	68.9	69.4	69.9	70.2	70.5	70.9	71.2	71.5	71.7	71.9	72.1	72.3	72.5
IMR	36.5	34.5	32.7	30.9	29.4	28.2	27.1	26	24.8	23.9	23.2	22.5	21.9	21.2	20.5
U5MR	45.6	42.8	40.3	37.9	35.9	34.4	32.9	31.4	29.9	28.6	27.7	26.8	25.9	25	24.1
Life table: Coale-Demeny West															
<b>Immigration (Thousands)</b>															
Male immigration	0	2	4.5	6	-6	7.87	-1.17	-5.81	-6.19	-1.51	-11.79	-1.4	-4.96	-5.5	-5.83
Female immigration	0	2	4.5	6	-6	7.87	-1.17	-5.81	-6.19	-1.51	-11.79	-1.4	-4.96	-5.5	-5.83
Total immigration	0	4	9	12	-12	15.74	-2.33	-11.61	-12.38	-3.03	-23.59	-2.79	-9.91	-11	-11.66
<b>Vital Rates</b>															
CBR per 1000	43.8	43.7	43.7	43.7	43.2	49.4	44.6	40.4	40.1	37.4	29.7	29.4	28	28.4	27.9
CDR per 1000	6.4	6.1	5.8	5.6	5.3	5.3	5	4.7	4.5	4.3	4.1	4	3.9	3.9	3.8
RNI percent	3.74	3.76	3.79	3.81	3.79	4.41	3.96	3.57	3.56	3.3	2.56	2.54	2.41	2.46	2.41
GR percent	3.74	4.02	4.33	4.5	3.12	5.25	3.84	3	2.97	3.16	1.5	2.42	1.98	1.99	1.92
Doubling time	18.9	17.6	16.3	15.7	22.5	13.5	18.4	23.4	23.7	22.3	46.6	29	35.4	35.2	36.4
<b>Annual births and deaths (Thousands)</b>															
Births	66.85	69.39	72.3	75.54	78.32	93.05	88.21	82.77	84.72	81.02	65.97	66.21	64.48	66.83	66.79
Deaths	9.72	9.69	9.66	9.65	9.69	9.99	9.89	9.66	9.58	9.42	9.09	9.02	9.02	9.08	9.11
<b>Population (Millions)</b>															
Total population	1.53	1.59	1.65	1.73	1.81	1.88	1.98	2.05	2.11	2.17	2.22	2.25	2.3	2.35	2.39
Male population	0.78	0.81	0.85	0.89	0.93	0.96	1.01	1.05	1.08	1.11	1.14	1.15	1.18	1.2	1.22
Female population	0.74	0.77	0.81	0.84	0.88	0.92	0.97	1	1.03	1.06	1.09	1.1	1.13	1.15	1.17
Percent 0-4	20.42	20.4	20.33	20.21	20.02	20.09	20.33	20.02	19.57	18.9	17.36	15.73	14.68	13.68	12.86
Percent 5-14	28.11	28.21	28.32	28.46	28.69	28.91	28.92	29.19	29.56	29.97	30.83	31.58	31.69	31.65	31.31
Percent 15-49	42.15	42.31	42.51	42.71	42.88	42.84	42.8	43	43.24	43.63	44.38	45.32	46.3	47.36	48.46
Percent 15-64	48.06	48.03	48.05	48.06	48.06	47.82	47.61	47.66	47.77	48.06	48.75	49.66	50.64	51.73	52.92
Percent 65 and over	3.41	3.36	3.31	3.27	3.23	3.18	3.14	3.12	3.1	3.08	3.06	3.03	2.99	2.94	2.9
Percent females 15-49	41.35	41.43	41.57	41.72	41.86	41.82	41.8	42.02	42.29	42.72	43.5	44.47	45.49	46.59	47.73
Sex ratio	105.42	105.3	105.18	105.06	104.94	104.9	104.79	104.75	104.73	104.72	104.69	104.72	104.69	104.69	104.69
Dependency ratio	1.08	1.08	1.08	1.08	1.08	1.09	1.1	1.1	1.09	1.08	1.05	1.01	0.97	0.93	0.89
Median age	16	16	16	16	16	15	15	15	15	16	16	16	17	17	17

**Arab Population**  
**In the West Bank & Gaza**  
**The Million and a half Person Gap**  
**Appendix F (Page 4 of 4)**  
**Spectrum Policy Modeling Systems Data Sources**

**Scenario #1**

<b>First Data Load of Spectrum Software:</b>	Used "Easyproj" feature of Spectrum which loads model with data from UN World Population Reports for Occupied Palestinian Territories, 2002 Revision
<b>Source for First Year Population:</b>	PCBS Population Pyramid from Dec 1997 PA Census; See Appendix C, page 2
<b>Source for Migration Statistics:</b>	Israel Border Data; See Endnotes Reference #6
<b>Source for TFR Rates 1997 - 2003:</b>	Health Status in Palestine Annual Reports; See Endnotes Reference #5

**Scenario #2**

<b>First Data Load of Spectrum Software:</b>	Used "Easyproj" feature of Spectrum which loads model with data from UN World Population Reports for Occupied Palestinian Territories, 2002 Revision
<b>Source for First Year Population:</b>	PA Ministry of Health 1996 Population Pyramid; See Appendix C, page 1
<b>Source for Migration Statistics:</b>	Israel Border Data; See Endnotes Reference #6
<b>Source for TFR Rates 1997 - 2003:</b>	Health Status in Palestine Annual Reports; See Endnotes Reference #5

**Scenario #3**

<b>First Data Load of Spectrum Software:</b>	Used "Easyproj" feature of Spectrum which loads model with data from UN World Population Reports for Occupied Palestinian Territories, 2002 Revision
<b>Source for First Year Population:</b>	ICBS Begin 1990 Population Pyramid; See Appendix C, page 1
<b>Source for Migration Statistics:</b>	Israel Border Data; See Endnotes Reference #6
<b>Source for TFR Rates 1994 - 2003:</b>	Health Status in Palestine Annual Reports; See Endnotes Reference #5

**Arab Population**  
**In the West Bank & Gaza**  
*The Million and a half Person Gap*

**10. Endnotes**

# Arab Population In the West Bank & Gaza

## *The Million and a half Person Gap*

### Endnotes (Page 1 of 2)

1. Palestine Ministry of Health, "Health Status in Palestine Annual Report 2003", p.2, [http://www.moh.gov.ps/annual/2003/1\\_Pop23/p\\_2003\\_w.pdf](http://www.moh.gov.ps/annual/2003/1_Pop23/p_2003_w.pdf) Accessed November, 2004
2. Palestine Central Bureau of Statistics Website, Demographic Indicators of the Palestinian Territory, 1997 – 2015, [www.pcbs.org/populati/est\\_n2.aspx](http://www.pcbs.org/populati/est_n2.aspx) Accessed on 8/21/04
3. Palestine Central Bureau of Statistics Website, Census Coverage, [http://www.pcbs.org/phc\\_97/phc\\_covr.aspx](http://www.pcbs.org/phc_97/phc_covr.aspx) , Accessed on 10/14/04
4. Palestine Central Bureau of Statistics Website, Summary of Final Results, Population, Housing and Establishment Census – 1997, [http://www.pcbs.org/phc\\_97/popu.aspx](http://www.pcbs.org/phc_97/popu.aspx) , Accessed on 8/21/04
5. Palestine Ministry of Health, Health Status in Palestine Annual Reports (each year available, with annexes, from 1996 through 2003), [www.moh.gov.ps](http://www.moh.gov.ps), Reports Accessed between August and November 2004
6. Israel Border Data: 1990 – 1993: ICBS, Demographic Characteristics of the Arab Population in Judea, Samaria and Gaza, Publication #1025, 1994: ICBS, "Annual Statistics Book 1996"; 1995-2003: Israel Border Police report of September, 2004.
7. Israel Central Bureau of Statistics, Annual Statistics Book 1996
8. Israel Central Bureau of Statistics, The Population in Judea & Samaria & Gaza, By Age and Sex, 1985-1993, 1993, Tables 1 & 2
9. World Bank, Developing the Occupied Territories: An Investment in Peace, Vol. 6 Human Resources and Social Policy, Vol. 6 Human Resources and Social Policy p.5-10
10. Palestine Central Election Commission Press Release, Central Elections Commission (CEC) Registers Over 67% of Eligible Voters, October 14, 2004 <http://www.elections.ps/Press%20Kit%2014-10/Press%20Release%20-%20English.doc>, Accessed October, 2004
11. Israel Civil Administration, Population Study for West Bank, 1990
12. Israel Civil Administration, Population Study for Gaza, 1987
13. Palestinian Legislative Council, Number of Palestinian Legislative Voters Distributed According to Constituencies, <http://www.pal-plc.org/english/election/novoters.html> Accessed in November 2004
14. FAFO, Norwegian Demographic Research Institute, November 2002
15. Jerusalem Post [Daily Edition], by Khaled Abu Toameh, 80,000 Palestinians emigrated from territories since beginning of year, Aug 27, 2002
16. United Nations Economics and Social Affairs, Population Division, World Population Database, <http://esa.un.org/unpp/>
17. Jerusalem Post [Daily Edition], by Khaled Abu Toameh, Palestinian election committee head quits, October 20, 2004
18. Palestine Central Bureau of Statistics Website, Population by Age Groups in Years, Region, and Sex, 1997 Census [http://www.pcbs.org/phc\\_97/popu.aspx](http://www.pcbs.org/phc_97/popu.aspx) , Accessed on 8/21/04
19. Palestine Central Bureau of Statistics Website, Mid Year Projected Population in the Palestinian Territory by Governate, 1997 - 2004 [http://www.pcbs.org/phc\\_97/governor.aspx](http://www.pcbs.org/phc_97/governor.aspx) , Accessed on 8/21/04
20. Israel Central Bureau of Statistics, 1987

**Arab Population**  
**In the West Bank & Gaza**  
**The Million and a half Person Gap**  
**Endnotes (Page 2 of 2)**

21. Palestine Ministry of Health, Health Status in Palestine Annual Report 2003, Annex 13, [www.moh.gov.ps](http://www.moh.gov.ps) , Accessed November 2004
22. United Nation Relief Works Agency (UNRWA), Annual Growth Rate of Registered Palestine Refugees and Female Parentage, 1953-2000, Table I
- 23a. AC/UNU Millennium Project, Futures Research Methods – V2.0. The chapter describing this methodology was written by Theodore J. Gordon.  
For further information on Trend Impact Analysis (TIA)
- 23b. Dr. David Passig, Bar-Ilan University Israel, The Palestinian Population 1967-2003 Verified with Trend Impact Analysis, October 6, 2004 [www.passig.com](http://www.passig.com)
24. United Nations Economics and Social Affairs, Population Division, World Population Database, Jordan Country Profile, <http://esa.un.org/unpp/p2k0data.asp>  
Accessed December 2004
25. Associated Press, Palestinian Cabinet to Hold Local Vote, Mohammed Daraghmeh, May 10 2004
26. Seven Oaks: A Magazine of Politics, Culture & Resistance, Hebron: The Street, by Am Johal, November 23, 2004  
[http://www.sevenoaksmag.com/commentary/40\\_comm1.html](http://www.sevenoaksmag.com/commentary/40_comm1.html) Accessed December 2004
27. Palestine Central Bureau of Statistics Press Release, Demographic and Health Survey 2004, November 2004
28. Central Intelligence Agency, The World Factbook 2004, <http://www.cia.gov/cia/publications/factbook/> , Accessed August through December 2004
29. United Nation Relief Works Agency (UNRWA), Registered Palestine Refugee Population by Age Group and by Field, June 2000, Table III
30. Israel Central Bureau of Statistics Website, <http://www.cbs.gov.il/eng/index.htm>, Accessed November 2004
31. Government of Israel Ministry of Interior- Population Administration Presentation: Immigration and absorption of foreign nationals in Israel, p.9,  
November 2003
32. Demography – Existential Threat or Myth, Prof. Ezra Sohar
33. Government Of Israel, Ministry of Defense Study, August 28, 1970
34. Nativ Quarterly, Vol.2, 1988, Prof. Ezra Sohar,
35. Demographic 'Bomb' May Only Go 'Pop!' by Donald G. McNeil, Jr., Section 4, Column 4, Week in Review, New York Times, August 29, 2004

**Arab Population**  
**In the West Bank & Gaza**  
*The Million and a half Person Gap*

Contact Information

In USA:

**Mr. Bennett Zimmerman**

**Ph: 310-617-4180**

**E-mail: [ben@pademographics.com](mailto:ben@pademographics.com)**

In Israel:

**Mr. Yoram Ettinger**

**Ph: 011-972-54-467-1828**

**E-mail: [yoram@pademographics.com](mailto:yoram@pademographics.com)**

*The Team would like to acknowledge the generous support of Mr. Peter Mandel who helped make this study possible.*

*We are also grateful to Nick Eberstadt of the American Enterprise Institute and Murray Feshbach of the Wilson Institute for the early review and encouragement of our work.*