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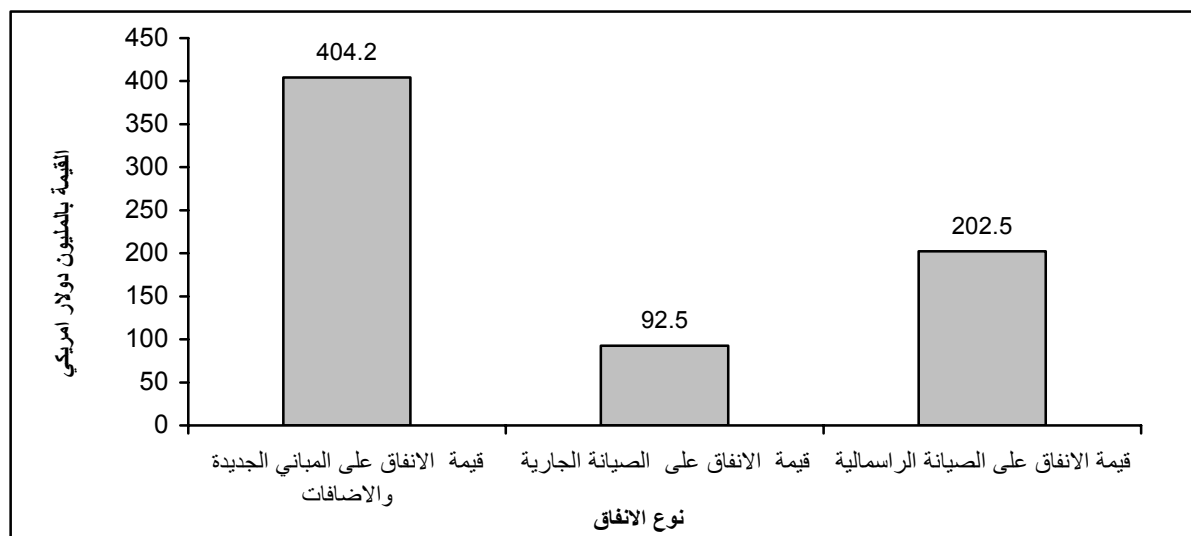
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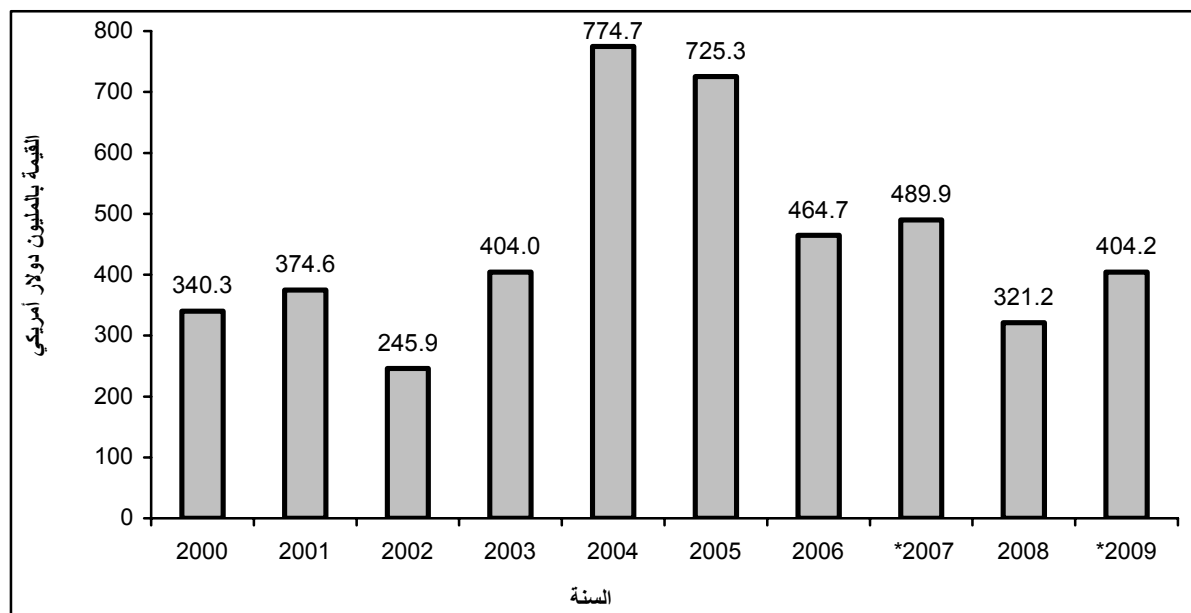
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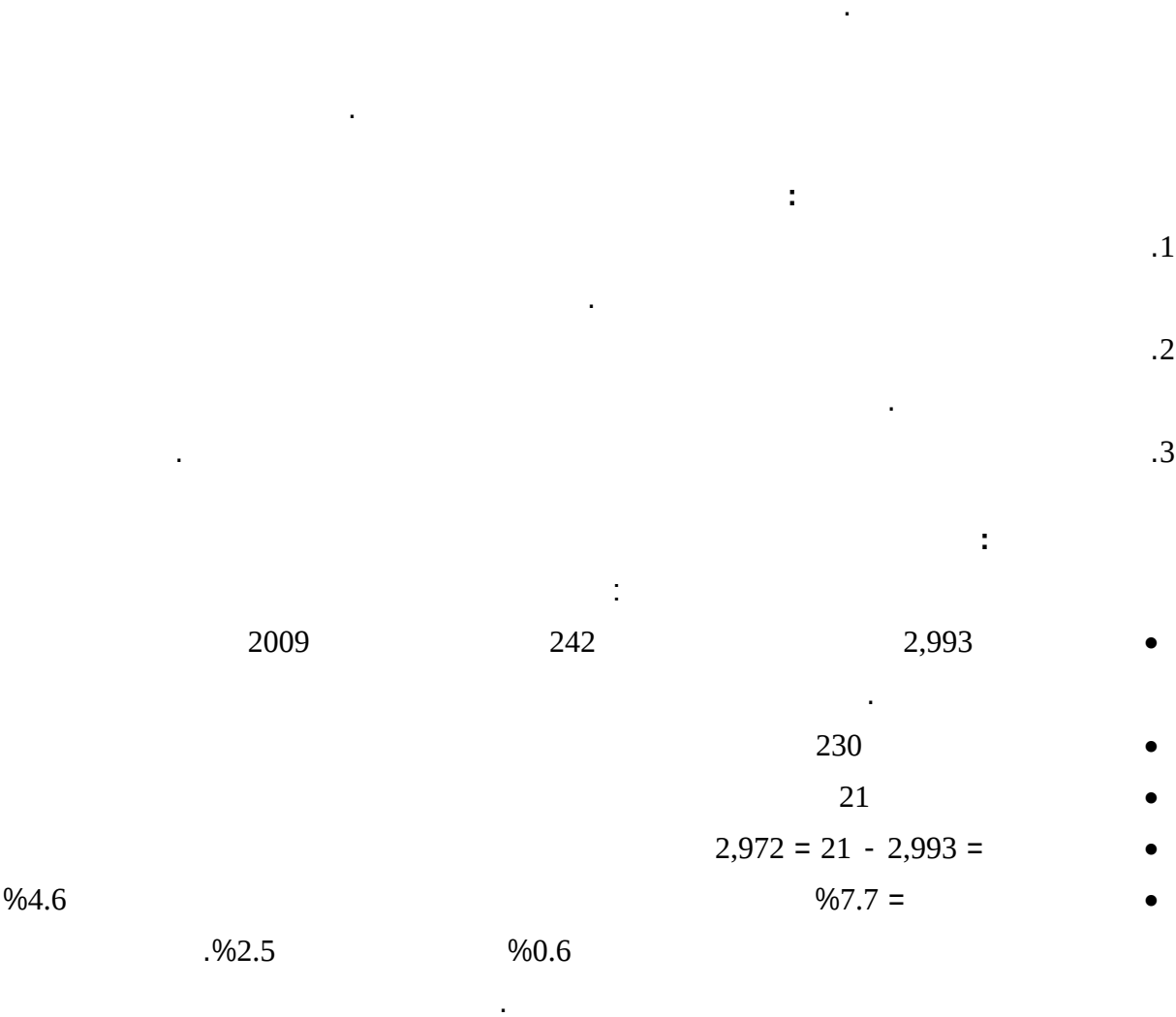
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Tables

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Table 1: Value of expenditures on new construction of buildings and additions in the West Bank by region and building type, 2009

Value in US \$ 1000

Region	Building Type					
	المجموع Total	** Other**	* Under construction*	فيلا/ دار Villa/ House	عمارة Building	
West Bank	404188.2	21467.0	175082.7	153475.8	54162.7	
North of West Bank	147012.2	10737.6	36769.5	75228.3	24276.8	
Middle of West Bank	54975.7	80.9	29615.3	14151.6	11127.9	
South of West bank	202200.3	10648.5	108697.9	64095.9	18758.0	

* Including building under preparation

** Other: include establishment, tent, and marginal.

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Table 2: Value of expenditures on new construction of buildings and additions in the West Bank by region and building status, 2009

Value in US \$ 1000

Region	Building Status				
	Total	Used but not completed	* Under construction*	Completed	
West Bank	404188.2	101082.6	221472.6	81633.0	
North of West Bank	147012.2	52796.8	56695.0	37520.4	
Middle of West Bank	54975.7	36077.3	45260.2	3638.2	
South of West bank	202200.3	42208.5	119517.4	40474.4	

* Including building under preparation

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2009

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Table 3: Value of expenditures on new construction of buildings and additions in the West Bank by region and building ownership, 2009

Value in US \$ 1000

Region	Building Ownership					
	Total	* Other*	Local Authority	Govern-mental	Private	
West Bank	404188.2	340.2	10146.8	7859.2	385842.0	
North of West Bank	147012.2	0.0	10146.8	7859.2	129006.2	
Middle of West Bank	54975.7	0.0	0.0	0.0	54975.7	
South of West bank	202200.3	340.2	0.0	0.0	201860.1	

*Includes UNRWA, Endowment, Philanthropic society and others.

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2009

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Table 4: Value of expenditures on new construction of buildings and additions in the West Bank by region and building current utilization, 2009

Value in US \$ 1000

Region	Building Utilization					
	Total	Not stated	Work and Residential	Work only	Residential only	
West Bank	404188.2	179210.8	12746.2	29539.9	182691.3	
North of West Bank	147012.2	47749.7	8572.4	15012.6	75677.5	
Middle of West Bank	54975.7	10356.5	476.8	0.0	44142.4	
South of West bank	202200.3	121104.6	3697.0	14527.3	62871.4	

2009

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Table 5: Value of expenditures on new construction of buildings and additions in the West Bank by region and construction material of external walls, 2009

Value in US \$ 1000

Region	Construction Material of External Walls						
	Total	* Other*	Concrete	Cement Block	Stone & Cement	Stone	
West Bank	404188.2	6953.8	33579.8	97747.2	34949.4	230958.0	
North of West Bank	147012.2	6563.2	12300.4	80865.9	9027.1	38255.6	
Middle of West Bank	54975.7	81.0	2664.5	4772.0	3820.8	43637.4	
South of West bank	202200.3	309.6	18614.9	12109.3	22101.5	149065.0	

*Includes old stones and others.

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Table 6: Value of current maintenance on buildings in the West Bank by region, 2009

Value in US \$ 1000

Region	Value of current maintenance	
West Bank	92484.5	
North of West Bank	44182.7	
Middle of West Bank	31138.7	
South of West bank	17163.1	

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**Table 7: Value of expenditures on capital additions repairs and improvements on buildings
In the West Bank by region, 2009**

Value in US \$ 1000

Region	Value of capital additions repairs and improvements	
West Bank	202525.1	
North of West Bank	103539.5	
Middle of West Bank	38122.8	
South of West bank	60862.8	

2009

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Table 8: Value of expenditures on new construction of buildings and additions in the West Bank by expenditure items, 2009

Value in US \$ 1000

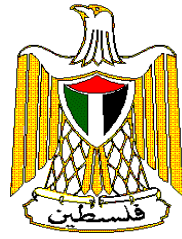
Expenditure Item	West Bank				
	South of West Bank	Middle of West Bank	North of West Bank	Total	
Excavations by Machinery	6044.2	1469.8	3394.9	10908.9	()
Workmanship	13510.9	4250.1	20964.2	38725.2	
Construction Materials*	79952.1	25387.2	87931.4	193270.7	*
Workmanship + Materials**	85280.1	21431.2	15673.0	122384.3	** +
Contracting Companies	14289.3	256.1	11481.3	26026.7	
Licensing Fees and Penalties	843.1	1324.6	3213.0	5380.7	
Utilities Connection Fees	304.8	262.8	1191.4	1759.0	(..)
Engineering Costs	474.2	580.7	2994.5	4049.4	
Other	1501.6	13.2	168.5	1683.3	
Total	202200.3	54975.7	147012.2	404188.2	

*Construction materials purchased by owner.

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**Construction materials purchased by contractor.

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**Palestinian National Authority
Palestinian Central Bureau of Statistics**

**Construction Statistics
Existing Buildings Survey – 2009**

June, 2010

PAGE NUMBERS OF ENGLISH TEXT ARE PRINTED IN SQUARE BRACKETS.
TABLES ARE PRINTED IN THE ARABIC ORDER (FROM RIGHT TO LEFT)

**This document is prepared in accordance with the standard
procedures stated in the Code of Practice for Palestine's Official
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The survey of Existing Building 2009 has been planned and conducted by a technical team from PCBS and with joint funding by the Palestinian National Authority (PNA) and the Core Funding Group (CFG) for the year 2010 represented by the Representative Office of Norway to PNA and the Swiss Development and Cooperation Agency (SDC).

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Acting President

Preface

Construction is a vital activity in the Palestinian Economy, not only for its substantial contribution in the Palestinian Gross Domestic Product (GDP) and in employment, but also for its strong interrelations with other economic activities. The construction of buildings, in particular, comprises a significant part of construction activities as a whole.

In an attempt to provide statistical data on the different aspects of this activity, PCBS has initiated the Construction-Contractors Survey within the economic survey series since 1994. PCBS has also started producing statistics on building licenses since the first quarter of 1996.

PCBS is pleased to issue the thirteenth report on Existing Buildings, 2009. This survey aimed basically to measure the output of producers engaged in construction activities; those not covered in the Construction-Contractors Survey. The reference here is to self-employed skilled and unskilled workers (informal sector) who significantly contribute to the building construction activity. This significant contribution brought up the urgent need for a survey to provide more complete data on producers in construction activities. This survey provided data on the cost of construction of existing buildings according to different characteristics in the West Bank.

The findings of this survey will be used in compiling the national accounts 2009 for construction activities. We also hope that this data is benefit to researchers and other interested parties from both public and private sectors.

June, 2010

**Ola Awad
Acting President**

Table of Contents

Subject		Page
	List of Tables	
	List of Figures	
	Executive Summary	
Chapter One	Introduction	[17]
	1.1 Objectives	[17]
Chapter Two	Concepts and Definitions	[19]
Chapter Three	Main Findings	[21]
Chapter Four	Methodology	[23]
	3.1 The questionnaire	[23]
	3.2 The sampling frame and the sample:	[23]
Chapter Five	Data Quality	[25]
	5.1 Accuracy of the Data	[25]
	5.2 Comparability	[26]
	5.3 Data Quality Control	[26]
	5.4 Technical Notes	[27]
	Tables	37

List of Tables

Table	Page
Table 1: Value of expenditures on new construction of buildings and additions in the West Bank by region and building type, 2009	37
Table 2: Value of expenditures on new construction of buildings and additions in the West Bank by region and building status, 2009	37
Table 3: Value of expenditures on new construction of buildings and additions in the West Bank by region and building ownership, 2009	38
Table 4: Value of expenditures on new construction of buildings and additions in the West Bank by region and building current utilization, 2009	38
Table 5: Value of expenditures on new construction of buildings and additions in the West Bank by region and construction material of external walls, 2009	39
Table 6: Value of current maintenance on buildings in the West Bank by region, 2009	39
Table 7: Value of expenditures on capital additions, repairs and improvements on buildings in the West Bank by region, 2009	40
Table 8: Value of expenditures on new construction of buildings and additions in the West Bank by expenditure items, 2009	41

List of Figures

Figure		page
Figure 1:	Value of Expenditures on New Buildings and Additions on Buildings in the West Bank by Expenditure Type, 2009	[22]
Figure 2:	Value of Expenditures on New Construction of Buildings and Additions on Buildings in the Palestinian Territory for the Years 2000 – 2009	[22]

Executive Summary

This report covers 2009 data which was collected at the beginning of the year 2010; and the respondents in this survey are the owners of the buildings. The existing building survey results was as follows:

The results of the survey indicated that the value of constructing new buildings and additions in the West Bank in 2009 was US\$ 404.2 million; the cost of current maintenance on existing buildings was US\$ 92.5 million for 2009; while the capital repair and improvements cost for existing buildings totaled US\$ 202.5 million in 2009.

The results also indicated that the value of constructing new buildings and additions in the West Bank increased by 25.8% compared with 2008. The cost of current maintenance on existing buildings increased by 27.4% compared with 2008, and decreased in the total cost value of capital additions repairs and improvements on buildings by 32.0% for the year 2009 compared with 2008.

While the 2009 data could not be compared with the previous year for Gaza Strip due to the lack of data on Gaza Strip in 2009.

Chapter One

Introduction

Construction activities play vital role in the Palestinian Economy in terms of its capacity to create job opportunities and for its contribution to Gross Domestic Product (GDP). PCBS have devoted great efforts to produce a comprehensive database on construction activities since its establishment in 1993. As a result, the annual Existing Buildings survey was designed to capture the informal sector in construction activities.

The construction of buildings represents the bulk of construction projects taking place in the Palestinian Territory. Most of these activities are constructed by self-employed, skilled workers and small size contractors who together constitute what is called the Informal Sector in construction. This survey aims to measure the economic indicators such as the cost of construction, and the cost of new additions and other related indicators. The output of this survey depends on a special methodology designed to get the requested data by directly addressing building owners.

1.1 Objectives

- To measure the output of those engaged in building construction, additions and capital and current maintenance.
- To provide data on the cost of construction of existing buildings in the West Bank by several characteristics.
- To provide data on the costs of current maintenance, which is necessary for estimating the intermediate consumption of real estate activities.

Concepts and Definitions

- **Statistical unit:** The statistical unit is the building.
- **Building:** the building is defined as any fixed construction that is temporarily or permanently erected on the surface of the earth or water. The building is surrounded by four walls or with at least one completed ceiling at the time of the visit, regardless of the construction material or the purpose of construction and utilization. The building might be utilized for habitation, work, both habitation and work, vacant, closed or under construction.
- **Building Situation:**
 1. Completed Building: the building that structurally completed including the vacant building that's good for use.
 2. Under construction building: the building where construction work is not complete, provided the wall and ceiling of at least one storey are completed.
 3. Vacant Building: the building that is not occupied by any one, because its not suitable for residence, or that building was taken decision to demolish it.
 4. Building used but not completed: it is the building that is occupied by individuals although it is not structurally completed.
- **Construction Materials of External Walls:** the main materials used in the construction which includes:
 1. Cleaned stone
 2. Stone and concrete
 3. Concrete
 4. Cement blocks
 5. Clay adobe
 6. Old stone
 7. Other
- **Type of the building:**
 1. **Villa:** a building or a part of a building constructed for one household only, with one or more independent entrance leading to the public road without passing through another housing unit.
 2. **House:** a building usually established for the residence of one household or more, it is the typical form of residential buildings prevailing in Palestine.
 3. **Marginal:** it is a separate unit, usually comprised of one or more rooms. The main construction material of the ceiling and walls is made of zinc, tibplate,...etc, but it does not under go listing if it is not occupied.
 4. **Tent:** it is made of textile, wool, or hair. It is typically used in the Bedouin Localities.
- **Total area of the building:** it is the sum of all roofed areas in square meters.
- **Ownership of the building:**

1. **Private Building:** it is the building that is owned by individuals or by organization.
 2. **Local Authority Building:** if it is owned by a municipality or a rural council.
 3. **Cooperative Building:** if the owner is a cooperative organization, despite of its aim.
 4. **Charity Building:** if the owner is charitable society.
- **Utilization of the building:** It refers to the way the building is currently used regardless of the purpose of its construction, which is classified as follows:
 1. **Habitation only:** it means that the building was used solely for residential purposes, i.e., normal buildings.
 2. **Habitation and Work:** it means that some of the housing units in the building are used for habitation purposes whereas other units are used for habitation and for work. An example of this is a building that has units used for habitation purposes only, whereas other units are used for work purposes. Likewise, a building that has units used for residential purposes except for the ground floor that consists of stores, groceries, garages, etc, is considered habitation and non-habitation building at the same time. Also, the building constructed for work purposes (i.e. factory, school, mosque ...etc.) but includes a unit permanently occupied by a household is considered habitation and work at the same time.
 3. **Work only:** it means that the building was used for work only (i.e. not occupied by any household).
 4. **Closed:** it means that one household or more occupied the building but it was closed during the listing period. This applies as well to buildings used for work purposes but found closed during the listing period.
 5. **Vacant:** it means that the building was used for work only (i.e. not occupied by any household).

Important note: If some parts of the building are used while other parts are vacant, closed or under construction, the current use shall be habitation only, for work only, or habitation and work.

Current Maintenance for the Building: it is keep to the performance of the source, and it doesn't lead to increase in its life age or change its production quality, and it is consumed through one year.

North of the West Bank: it includes six governorates Jenin, Tubas, Tulkarem, Nablus, Qalqilia, Salfit.

Middle of the West Bank: it includes three governorates Ramallah, Jerusalem, Jericho and Al-Aghwar.

South of the West Bank: it includes Hebron and Bethlehem governorates.

Chapter Three

Main Findings

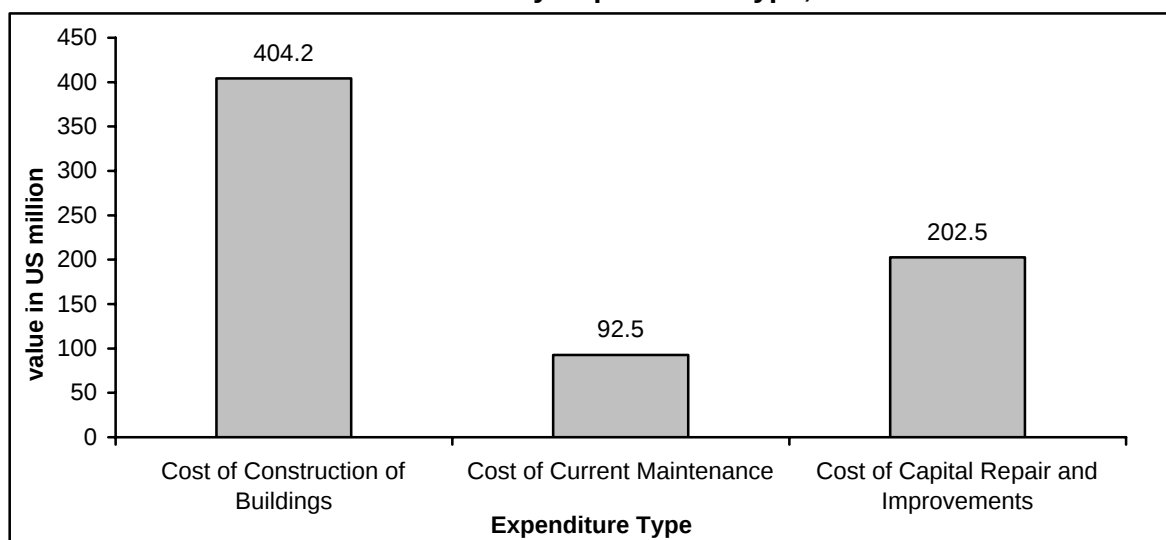
The following main indicators are derived from the Existing Buildings Survey 2009 in the West Bank:

Item	Values in Million US \$
1. Value of expenditures of new buildings and additions in the West Bank:	404.2
A. Value of expenditures of new buildings and additions by building type:	
a- Building	54.2
b- Villa/ House	153.5
d- Under construction	175.1
e- Others, including (tent, iron building, others)	21.4
B. Value of expenditures on new buildings and additions by building status:	
a- Completed	81.6
b- Under construction/ Under preparation	221.5
c- Used but not completed	101.1
C. Value of expenditures on new buildings and additions by building utilization:	
a- Residential only	182.7
b- Work only	29.5
c- Work and residential	12.8
d- Not stated	179.2
D. Value of expenditures on new buildings and additions by building ownership:	
a- Private	385.8
b- Governmental	7.9
c- Local Authority	10.2
d- Others, including (UNRWA, Endowment, others)	0.3
2. Value of current maintenance for existing buildings	92.5
3. Value of capital improvements for existing buildings	202.5
4. Total value of expenditures on building construction and maintenance	699.2

The survey results indicated that the value of constructing new buildings and additions in the West Bank in 2009 was US\$ 404.2 million. The cost of current maintenance on existing buildings was US\$ 92.5 million for 2009; while the capital repair and improvements cost for existing buildings totaled US\$ 202.5 million in 2009.

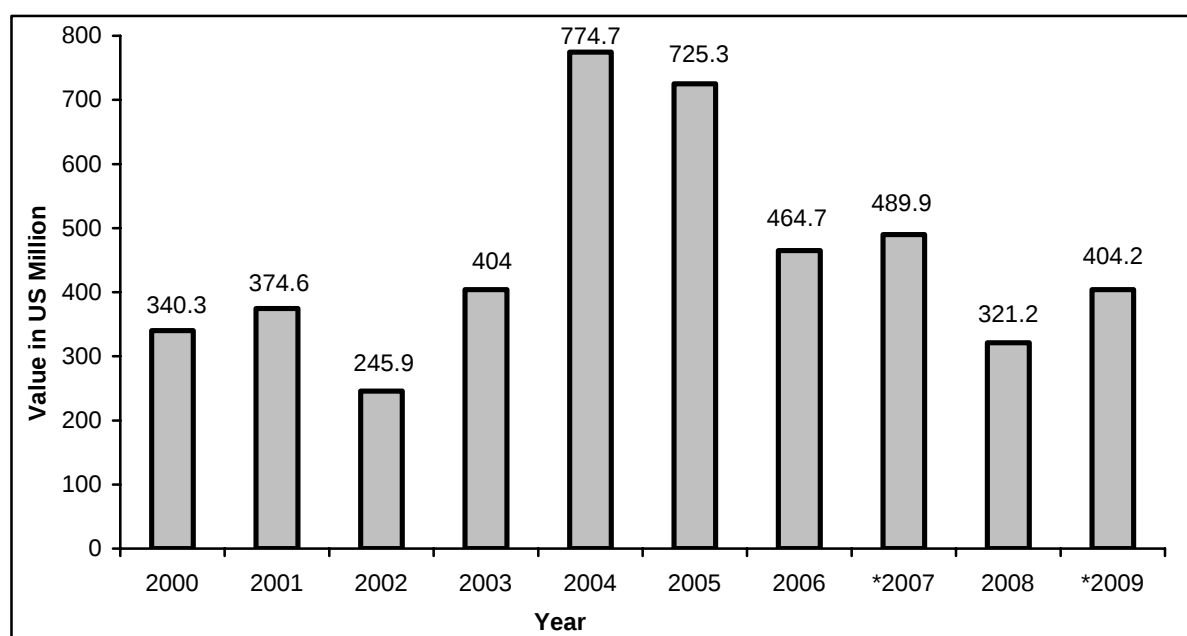
The figure below shows the expenditures distributed by expenditure type for building construction:

Figure (1): Value of Expenditures on New Buildings and Additions on Buildings in the West Bank by Expenditure Type, 2009



Also the results of the survey indicated an increase in the value of expenditures in the year 2009 compared with the years 2000-2003; while there was a decrease compared with the year 2007. The value of expenditures was increased by 25.8% compared with the year 2008.

Figure (2): Value of Expenditures on New Construction of Buildings and Additions on Buildings in the Palestinian Territory for the Years 2000 - 2009



* Note: Data for the year 2007, 2009 is at the level of the West Bank due to the lack of data on Gaza Strip for this year.

Methodology

This chapter presents the questionnaire of the survey, the sampling frame, the sample, fieldwork operations and data processing.

3.1 The questionnaire:

The survey's questionnaire was designed to meet the objectives of the study. The questionnaire included essential economic variables that are necessary to identify characteristics pertinent cost of building's construction, maintenance of buildings, as well as capital and current maintenance. In addition, the survey's data provides statistics on buildings as well as basic data required for Palestine's national accounts. The questionnaire includes questions such as:

1. The nature, features, characteristics and geographical location of the building
2. The value of expenditures on current maintenance
3. The value of insurance fees on buildings
4. Expenditure on the construction of a building including new buildings, vertical and horizontal additions
5. Area of construction that was totally completed during the specified period and its type
6. Working hours for waged workers
7. Value of expenditure on maintenance including capital one.

3.2 The sampling frame and the sample:

3.2.1 The coverage:

The population of the study includes all buildings that were constructed before 2009 in the Palestinian Territory.

The sampling frame includes:

- 3,258 enumeration area that were used in the Population, Housing, and Establishment Census 2007
- There is no sampling frame for buildings in Jerusalem (J1)
- Listings of constructed buildings in these enumeration areas according to census 2007 (excluding Jerusalem J1)

3.2.2 The survey's sample:

A two stage stratified cluster random sample was used in this survey. In the first stage, 190 enumeration areas were selected that represent the following strata:

1. Geographical areas in the West Bank (north, middle, south)
2. Locality type (urban, rural, camps)
3. The change between the two census (1997, 2007) in the number of buildings in each locality (marginal change, medium change, large change)

In the second stage, a systematic random sample of all constructed buildings in the selected enumeration area; in addition to listing of all buildings that do not exist in the sampling frame from census 2007 and with establishment year 2009. The following strata were taken into consideration:

1. Geographical location
 - (North, middle, south) of the West Bank
2. Building type
 - Villa
 - House
 - Apartments building
 - Establishment
 - Tent, marginal and other
 - Under construction/ Under preparation
3. Age of building:
 - From 1 to 10 years
 - From 11 to 20 years
 - More than 20 years

Chapter Five

Data Quality

5.1 Accuracy of the Data:

5.1.1 Statistical Errors:

The findings of the survey are affected by statistical errors due to using a sampling method in conducting the survey instead of the comprehensive enumeration of the units of the target population.

Table of variance calculation in the West Bank

Value in US\$ 1000

Variable	Estimate	Standard Error	Coefficient of Variation	95% Confidence Interval		No. of Observations
				Lower	Upper	
Value of expenditures on new construction of buildings and additions	404,188.2	14,246.2	0.04	375,869.6	432,506.7	318
Value of capital additions repairs and improvements	202,525.1	5,996.0	0.03	190,700.1	214,350.1	330
Value of current maintenance	92,448.4	1,445.8	0.02	89,647.2	95,321.7	1,244

Results showed high accuracy of variance calculation in the data, as shown in the table above.

5.1.2 Non-Statistical Errors

These types of errors could appear in one or all of the survey stages that include data collection and data entry.

Main obstacles appearing in the survey:

1. Problems in maps, because the some buildings were not numbered on the maps.
2. There was no one to answer some questions such as construction year or costs questions in the morning period.
3. Absence of families, which forced the field workers to visit these families many times.

Response rate values:

- Sample size was 2,993 buildings in the West Bank, of which 242 buildings, constructed in the year 2009.
- Non- response cases were 230.
- Over coverage cases were 21.
- Net sample = $2,993 - 21 = 2,972$.
- Non- response rate = 7.7%.

Response errors: these types of errors are related to respondents, fieldworkers, and data entry personnel. For insuring data quality, a series of measures were taken to support accuracy of data collection and data processing through the following:

Fieldworkers' errors: a set of actions was taken to support accuracy of data collection through the selection of a specialized fieldwork team. The team was trained in theory and practice in

the completion of the survey's questionnaire,. Field visits were a helpful tool to test the credibility of fieldworkers, and to solve all problems that face them.

Data entry errors: for insuring quality and consistency of data, a set of measures were taken for strengthening accuracy of data as preparing the data entry program before data collection to check its readiness. Also a set of validation rules were applied to the program to check consistency of data. In addition efficiency of the program was checked through pre-testing, including incorrect information to check its efficiency in capturing this information.

5.2 Comparability:

Data from this survey can be compared with data for previous years surveys for all covered geographical areas.

5.3 Data Quality control:

5.3.1 Fieldwork

- Selection of specialized fieldwork team of suitable background; the team was trained theoretically and practically on the completion of the survey's questionnaire.
- The main fieldwork team members were selected from those who passed the evaluation test of the training course.
- Field work visits by both fieldwork and project management staff for monitoring and following up data collection process and progress of work. There was an average of two visits for each governorate. About 95% of completed questionnaires was reviewed and corrected as needed; comments and notes were directed to the team accordingly.
- Different levels of supervision and monitoring took place according to the following division:
 - Fieldworkers
 - Fieldworkers' supervisors
 - Fieldwork coordinators. (Each has responsibilities in monitoring)
- Project management receives a daily progress report about completeness and response rate.
- Conducting a refresher training course during the early stage of data collection to emphasize the main issues pertinent to data collection. Also to answer fieldworkers questions about issues faced in the field.
- Some buildings were visited by the researchers again to confirm the accuracy of the earlier given data. These buildings were selected randomly by drawing a random sample of 10% of the original survey sample.

5.3.2 Data processing:

For insuring quality and consistency of data, a set of measures was taken to strengthen data accuracy as follows:

- Preparing a data entry program before data collection to check its readiness for data entry.
- A set of validation rules were applied to the program to check consistency of data.
- Efficiency of the program was checked through pre-testing by entering a few completed questionnaires, including incorrect information, to check its efficiency in capturing the information.
- Well _trained data keyers were selected and trained for the main data entry.

- Weekly or biweekly data files were received by project management to check accuracy and consistency,; notes of correction are provided for data entry management.

5.4 Technical Notes:

1. There could be some non-statistical errors in buildings construction and maintenance on these buildings, as a result of the long period between the interview time and the base year. In addition to that, most respondents don't have financial records.
2. Differences of results of certain indicators that can be noticed are due to approximation.
3. Inability to disseminate results on annexed Jerusalem because of high relative error of indices, and the small number of observation.
4. Financial data was collected in NIS, US\$ and JD, but it was converted and published in US\$, with the use of average exchange rate during the reference period.

Exchange rates 2009:

US\$ / NIS = 3.9280

US\$ / JD = 0.7028

