

Measuring Multidimensional Poverty in Palestine

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Outline

- Background
 - Theoretical framework
 - Measurement framework

 - Selecting dimensions and indicators
 - Results
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Background -

Palestine National Authority (PNA) establish National Poverty Commission in 1997

...oversee the assessment and monitoring of poverty in Palestine and develop strategies to alleviate it

The Commission established a national monetary poverty line, and released the first national poverty report in 1998 (Khawaja, 1998; PCBS, 1998)

...regular reports updated to changes in cost of living over time

However, poverty is multidimensional in nature, consisting of both monetary and non-monetary aspects

Purpose

- Describe the new Multidimensional Poverty Index (MPI) for Palestine
 - Review results of some widely used robustness tests of the Index
 - Present preliminary findings of overall poverty using the new MPI and for some relevant dis-aggregations
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Framework

- The global MPI framework – most common
 - Oxford Poverty and Human Development Initiative and UNDP
 - Fairly simple, mirroring the UNDP HDI global index but with household level micro data
 - Three dimensions: health, education and standard of living
 - Eight equally weighted indicators within each dimension
 - Designed to reflect poverty in low income countries
 - MPI (2017) shows Palestine with 1.1% overall poverty rate – least poor among (non GCC) Arab countries
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Rights-based framework

- A modified Alkire-Foster ‘dual cutoff’ framework (Alkire and Foster, 2008)
 - AF: identifying the poor by assigning a cut-off in each equally weighted dimension and then using a counting approach to identify the multi-dimensionally poor by an arbitrarily chosen percentage of the overall score
 - Global MPI: a cutoff of **33%** is used for identifying the multi-dimensionally poor households
 - MPI-Palestine:
 - Rights-based approach to select dimensions
 - Different weighting scheme
 - Use both economic/monetary and social dimensions
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Dimensions

- 10 dimensions were identified from the Palestinian Basic Law; labor law:
 1. Education (Article 24)
 2. Health status (Article 22)
 3. Employment and work conditions (Article 25)
 4. Housing conditions (Articles 22, 23)
 5. Personal safety (Articles 13, 29)
 6. Access to social services (Article 22)
 7. Personal freedom (Articles 11, 19, 20, 28)
 8. Social Protection (Article 22)
 9. Social participation (Article 26)
 10. Ownership and use of own assets (Article 21)
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Data

The Palestinian Consumption and Expenditure survey (PECS)

- Inclusion of a monetary dimension (existing poverty line)
- 2011 PECS survey did not cover all of the dimensions

PECS 2016/17

- Substantial revisions on the household part of the instrument to accommodate the new proposed measure
 - A two-stage stratified cluster sample (n=3,739)
 - Known to have good quality data
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Indicators

Criteria of selection included:

- Reasonable prevalence of deprivation for each indicator
 - Consistency across indicators
 - Results (in terms of frequencies) from the pilot survey
 - Results from 6 months of data
 - Results from the full, 12 months of data
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6 Dimensions & 17 indicators

1. Education (3)
 2. Health status (3)
 3. Employment and work conditions (2)
 4. Housing conditions & Access to social services (4)
 5. Personal safety & Ownership and use of own assets (3)
 6. Personal freedom (2)
- + Monetary poverty dimension
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Education

<i>Indicator</i>	<i>Deprived if:</i>	<i>% Final</i>
School enrolment	Household has any child aged 6-17 not enrolled in school (not including those who graduated secondary school)	13
Repetition	Household has any child aged 7-18 ever enrolled in school and repeated a school year, OR Household has any child aged 7-18 never been enrolled	15
Educational attainment – persons aged 19-50	All household members aged 19-50 not completing secondary school	24
Quality of education – household with children age 6-17 years enrolled in school	Household has any child aged 6-17 who had problems with education quality. (Indicated a serious problem with the school in terms of poor teaching or lack of teachers or lack of books or lack of facilities.)	30

Health

Disability	Any household member having great difficulty in hearing, vision, movement, communication, OR understanding	14
Chronic disease	All household members aged 30+ suffering from a diagnosed chronic disease.	10
Health insurance	Household lacking health insurance: (the head OR any member has health insurance defined as NOT deprived)	29
Health Access	Household lives more than 5 km away from the nearest doctor clinic or hospital	2

Employment

Unemployment	None of adults aged 18+ currently employed	11
Employment benefits	Wage earners aged 15-60 lacking paid sick leave, maternity leave or annual vacation	55
Quality of work	Household has any working member 18+ who is currently an irregular wage employee, OR does not have a contract OR is a seasonal & casual worker OR has worked only 6 months during last 12 months.	28
Youth NEET	Household has any youth aged 18-24 who is not in school or training and unemployed	23

Housing conditions & access to services

Access to piped water	Dwelling is not connected to public network	5
Disruption of water supply	Disruption of water supply (daily) during the past year	16
Ventilation problems in dwelling	Dwelling suffers from noise, smoke or any other pollutant	24
Overcrowding	More than 3 persons per sleeping room	35

Safety & use of assets

Theft or damage to property	Stealing from household or damage of household property as a result of attacks last year	9
Ownership and use of assets	Household lost land, house/building or business establishment during the past year due to confiscation or demolition Household was unable to use agricultural land or private property due to restrictions of movement	3
Interpersonal and state violence	Any household member attacked or forcibly assaulted with or without a weapon last year OR, any child or women hit or attacked by another family member during the past year. OR Injuries, deaths or torture in household from state/settler violence during the past year	37

Personal freedom

Freedom of movement	A household member was not able to visit family, relatives, or friends because of checkpoints, wall or travel restrictions during the past year	8
Control of women's income or women's participation in the labor market	Any women in household who does not have a separate bank account or does not control her use of income or earnings OR Any women in household does not work (or look for work) because of husband/father/brother's restrictions	17

Monetary Resources

National Poverty Line	Household is below the national poverty line	29
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Identifying the multi-dimensionally poor...

Social Well-being

Economic Well-being

	Poor	Non-poor
Poor	Multi-dimensional poor	Income poor
Non-poor	Socially deprived	Not poor

Weighting & cut-off

The standard practice is to use equal weights for the various dimensions and indicators as is the case for the Global MPI

Instead:

- Economic well being as measured by the usual poverty line accounts for 20% of overall poverty
- Equal weights (~13.3%) are given to each of the 6 social well-being dimensions
- All indicators within each of the chosen dimensions are weighted equally

Identifying the poor – cut-off

- Defining the minimum in a multidimensional setting is somewhat more arbitrary and challenging
 - A family is multi-dimensionally POOR if it falls below the cut-off (33%) in all dimensions (global MPI)
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Poverty measures - aggregation

Most commonly used measure of monetary poverty is the headcount ratio which gives the percentage of poor in the population

However, Alkire-Foster show that the simple headcount ratio (P0) is insensitive to the increase in the scope of poverty

Instead:

- $MPI = \text{incidence} * \text{intensity}$
 - **Incidence:** Percentage of people who are poor
 - **Intensity** of deprivation: The average percentage of dimensions in which the poor are deprived
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Results

	H (95% CI)	M₀ (95% CI)
<u>Palestine Total</u>	24.2 (22.0, 26.4)	0.103 (0.093, 0.112)
<u>Region</u>		
West Bank	10.7 (9.0, 12.4)	0.043 (0.036, 0.050)
Gaza Strip	45.0 (40.8, 49.3)	0.195 (0.176, 0.215)
<u>Locality Type</u>		
Urban	24.4 (21.6, 27.2)	0.104 (0.091, 0.116)
Rural	14.2 (11.4, 16.9)	0.057 (0.047, 0.068)
Refugee Camps	39.1 (33.0, 45.2)	0.170 (0.141, 0.198)
<u>Sex of Household Head</u>		
Male	24.2 (22.0, 26.5)	0.103 (0.093, 0.113)
Female	23.2 (14.8, 31.6)	0.100 (0.060, 0.141)
<u>Refugee Status of Household Head</u>		
Refugee	31.3 (27.8, 34.8)	0.132 (0.116, 0.147)
Non-refugee	18.9 (16.1, 21.7)	0.081 (0.068, 0.094)
<u>Household Size</u>		
1-3	6.3 (3.8, 8.8)	0.023 (0.014, 0.032)
4-6	14.2 (11.8, 16.5)	0.058 (0.048, 0.068)
7+	35.7 (32.0, 39.4)	0.154 (0.137, 0.171)

Figure 1: MPI-Palestine estimates of M_0 for different k values

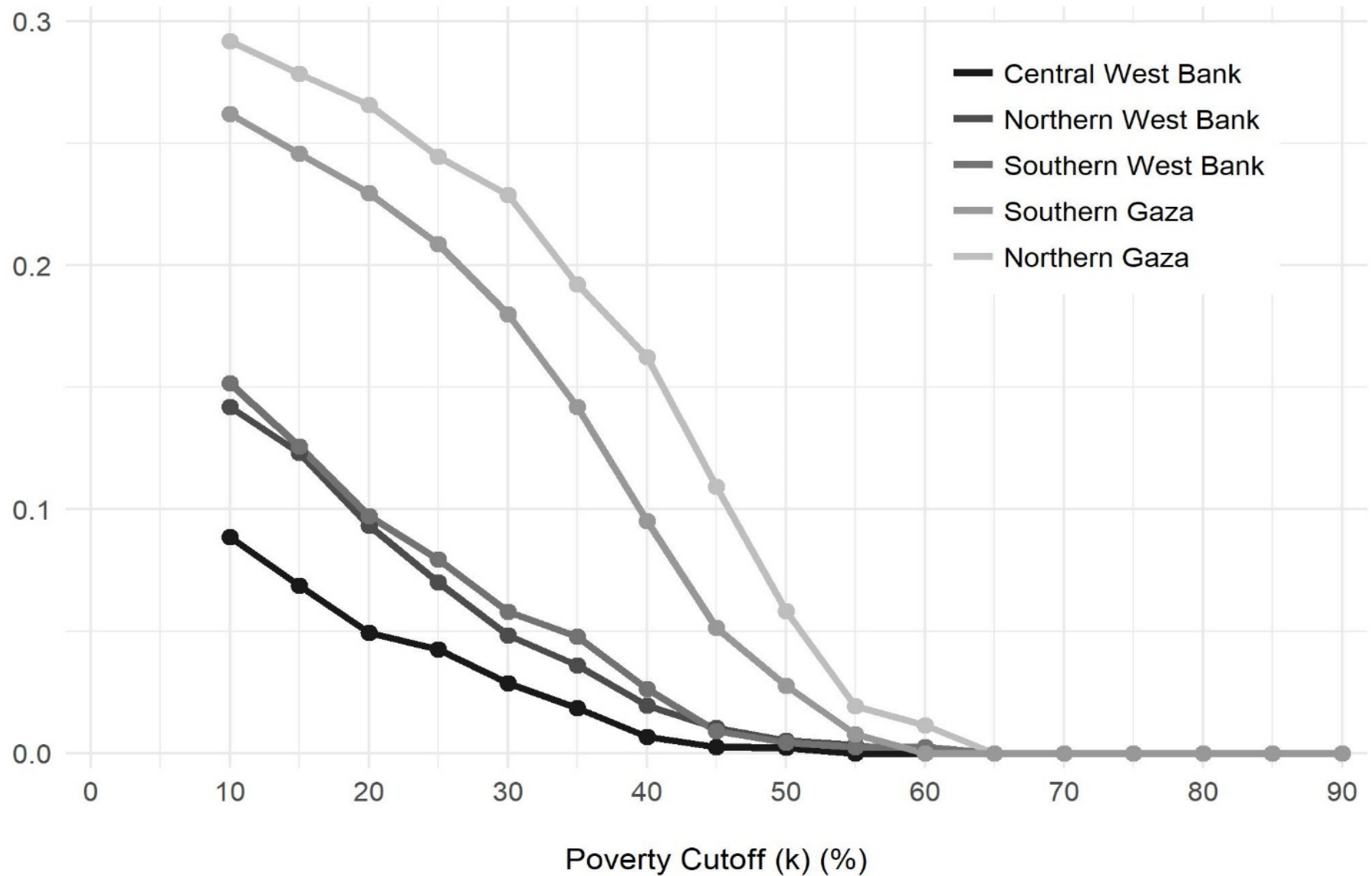
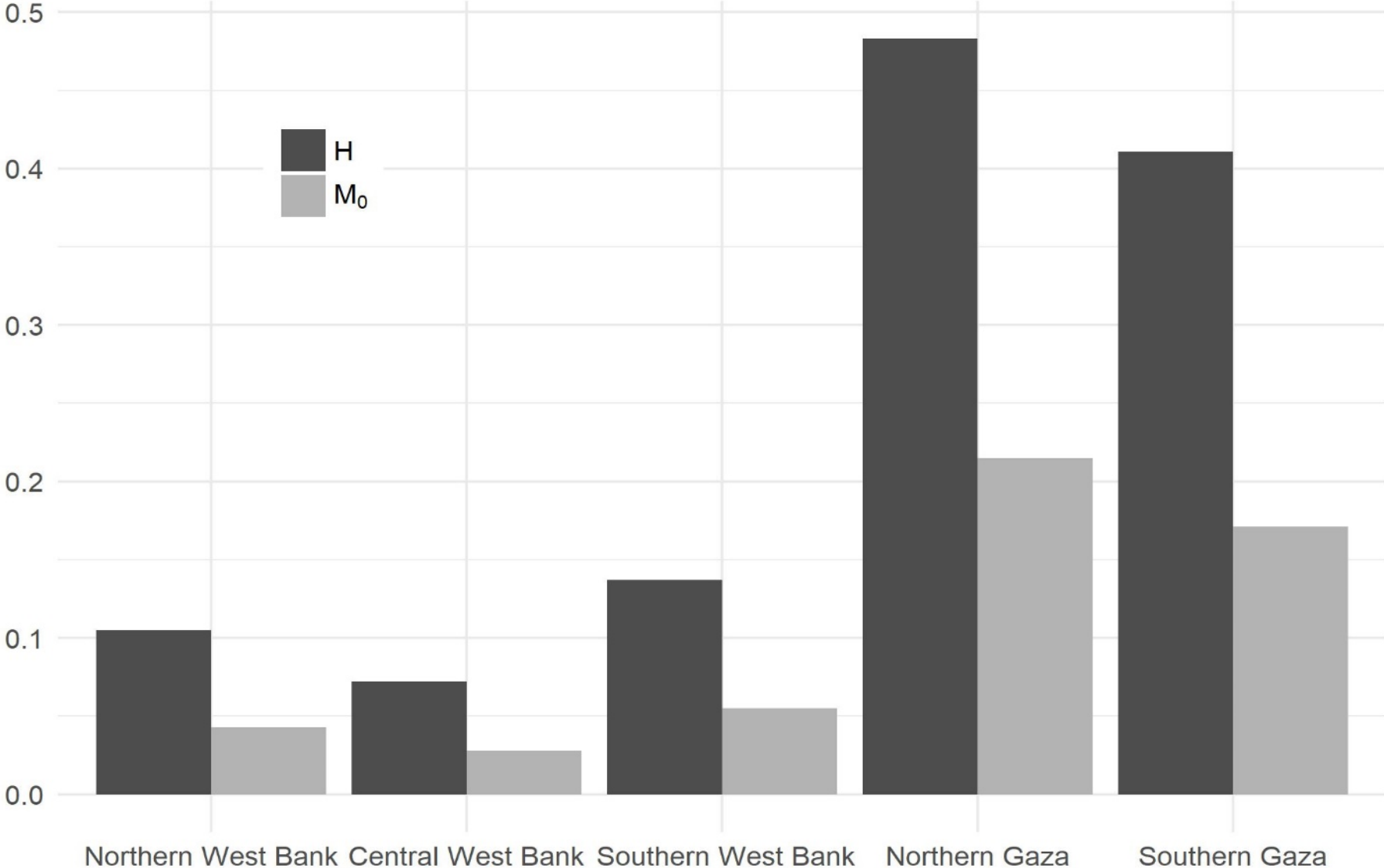


Figure 2: Poverty incidence H and adjusted headcount ratios M_0



Contribution of each dimension

Dimension	Weight	Contribution
Education	13.3	10.8
Health	13.3	5.3
Employment	13.3	12.5
Housing Conditions	13.3	11.2
Safety and Use of Assets	13.3	8.3
Personal Freedom	13.3	6.8
Monetary	20.0	45.1

Contribution of each indicator

Indicators	Contribution	Indicators	Contribution
School Enrolment	1.80	Access to Piped Water	0.40
Repetition	2.50	Disruption of Water Supply	2.30
Educational Attainment	3.00	Ventilation	3.80
Quality of Education	3.50	Overcrowding	4.70
Disability Prevalence	2.00	Theft or Damage to Property	1.40
Chronic Disease Prevalence	1.10	Ownership and Use of Assets	0.20
Health Insurance	2.10	Interpersonal and State Violence	6.60
Health Access	0.10	Freedom of Movement	1.50
Unemployment	1.30	Economic Freedom of Women	5.30
Quality of Work	3.00	Monetary	45.10
Employment Benefits	5.30		
NEET Rate	2.90		

Conclusions

- Unique in the region: rights based & includes monetary poverty
 - Results 'reasonable'
 - **Limitations:**
 - Some merged indicators; problems for policy interventions
 - Small sample; direct detailed dis-aggregations not possible
 - Survey not suited to collect some relevant indicators (child deaths; nutrition)
 - Possible measurement issues in the perception indicators – proxy respondents
 - No prior data to examine trends
 - **Good news:**
 - Palestinian cabinet approved the new MPI (January 2020) for use in monitoring poverty and for social transfer
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Thank you!
