Multidimensional Poverty Measurement
This series will publish volumes that go beyond the traditional concepts of consumption, income or wealth and will offer a broad, inclusive view of inequality and well-being. Specific areas of interest will include Capabilities and Inequalities, Discrimination and Segregation in the Labor Market, Equality of Opportunities, Globalization and Inequality, Human Development and the Quality of Life, Income and Social Mobility, Inequality and Development, Inequality and Happiness, Inequality and Malnutrition, Inequality in Consumption and Time Use, Inequalities in Health and Education, Multidimensional Inequality and Poverty Measurement, Polarization among Children and Elderly People, Social Policy and the Welfare State, and Wealth Distribution.

Volume 1
de Janvry, Alain and Kanbur, Ravi
*Poverty, Inequality and Development: Essays in Honor of Erik Thorbecke*

Volume 2
Duclos, Jean-Yves and Araar, Abdelkrim
*Poverty and Equity: Measurement, Policy and Estimation with DAD*

Volume 3
Lemmi, Achille and Betti, Gianni
*Fuzzy Set Approach to Multidimensional Poverty Measurement*

Volume 4
Wagle, Udaya
*Multidimensional Poverty Measurement: Concepts and Applications*
Multidimensional Poverty Measurement

Concepts and Applications
To My Mother
The recent past has seen enormous interest and developments in multidimensional poverty measurement. Capitalizing on these recent developments, this book proposes an innovative and comprehensive operational framework and applies it in specific contexts. The successful application of the framework to measure and examine poverty in Nepal and the United States, two very different contexts, provides an impetus for a more general discussion with its universal applicability. The aim of the book is to provide a theoretical and operational framework to accurately measure poverty so that the poverty measurement enterprise can improve from the deeply flawed, traditional attempts with purely economic measures to more ‘humane’ and ‘policy conscious’ attempts with utilization of comprehensive information. I expect the concepts and applications included in this book to be useful to researchers as well as makers of public policies relating to poverty and redistribution.

I have greatly profited from many people and organizations in transforming an abstract idea into this final product. I would like to express my gratitude to Randy Albelda, Alan Clayton-Matthews, Maria E. Letona, Arthur Goldsmith, and Miren Uriarte, who provided critical support of the framework and its application during its formative stage. I must also acknowledge the valuable contributions emanating from formal and informal discussions with my colleagues including Caroline Coscia, Jen Douglas, Barbara Liggett, Robert McConnell, Matthew Mingus, Robert Peters, Victoria Ross, and James Visser. I have taught at many universities/colleges at the time in which this book project was in progress. I am particularly thankful to the direct and indirect research supports I have received from Marist College, University of Massachusetts, Boston, and Western Michigan University.

Many played critical roles in making the comprehensive household survey in Kathmandu a success. I am thankful to the city of Kathmandu for providing the materials needed for sampling as well as an official permission to collect the data. My sincere thanks go to Bishal, Madhusudan, Ram, Sunita, Sudarshan, Sarita, and Vaskar, who tirelessly conducted the interviews and helped with coding and data entry.
Data for the application of the multidimensional approach in the United States came from the General Social Survey. I am grateful to the National Opinion Research Center for providing these data through widely accessible open sources.

Parts of the content in this book have appeared in various journals. I am particularly appreciative of the opportunity provided by the editors of the Journal of Human development and Social Science Research which helped push the ideas forward and obtain meaningful feedback. I must also acknowledge the highly positive experience I have had while working with the editor at Springer, who quite impressively streamlined all my editorial and publishing concerns. This book has also benefited greatly from the insightful comments received from the three anonymous referees assigned by the editor.

Finally, my family has been the party most directly affected by this book project from its inception to the conclusion. My wife, Karuna, has examined every aspect of this project and provided invaluable clerical, moral, and sometimes editorial support. I am wholeheartedly grateful to the source of inspiration that she has constantly become at moments of excitement, frustration, pain, and pleasure. After all, my genuine love and familial bond with my wife and with our daughters, Ava and Ipsa, keeps me going with whatever I do.

Kalamazoo, Michigan

December 5, 2007
Contents

Preface vii
List of Figures and Tables xi
1 Introduction 1
   1.1 Overview 1
   1.2 Concept 4
   1.3 Organization of the Book 8
2 Three Related Concepts of Poverty 15
   2.1 Overview 15
   2.2 Economic Well-being 16
      2.2.1 Political Economy Issues 20
      2.2.2 Measurement Issues 26
   2.3 Capability 30
      2.3.1 Political Economy Issues 34
      2.3.2 Measurement Issues 37
   2.4 Social Inclusion 42
      2.4.1 Political Economy Issues 45
      2.4.2 Measurement Issues 50
3 Multidimensional Approach to Poverty 55
   3.1 Overview 55
   3.2 Conceptual Issues 56
      3.2.1 Multidimensional Approach 58
      3.2.2 Indicators of Poverty Dimensions 64
      3.2.3 Identification of Poverty Status 66
   3.3 Operational Framework 72
      3.3.1 Unidimensional Operationalizations 73
      3.3.2 Multidimensional Operationalization 77
      3.3.3 Identification of Poverty Status 81
      3.3.4 A Note on the Technique 84
4 Application I: Nepal 87
   4.1 Overview 87
   4.2 Empirical Analysis 88
      4.2.1 Dataset 90
      4.2.2 Model Estimation 90
      4.2.3 Indicators of Poverty Dimensions 95
## 4.2.4 Multidimensionality of Poverty  
4.2.5 Poverty Measurement Outcomes  
4.2.6 Characteristics of Unidimensional Poverty  
4.2.7 Characteristics of Multidimensional Poverty  

## 4.3 Policy Implications  
4.3.1 Focusing Poverty  
4.3.2 Targeting the Poor  

## 5 Application II: The United States  
5.1 Overview  
5.2 Empirical Analysis  
5.2.1 Dataset  
5.2.2 Model Estimation  
5.2.3 Indicators of Poverty Dimensions  
5.2.4 Multidimensionality of Poverty  
5.2.5 Poverty Measurement Outcomes  
5.2.6 Characteristics of Unidimensional Poverty  
5.2.7 Characteristics of Multidimensional Poverty  
5.3 Policy Implications  
5.3.1 Focusing Poverty  
5.3.2 Targeting the Poor  

## 6 Conclusion  
6.1 Overview  
6.2 Multidimensionality of Poverty  
6.3 Material Resources and Economic Growth  
6.4 Inner Strength and Resources and Education  
6.5 Relational Resources and Participation  
6.6 Future Directions  

Appendices  
References  
Index
List of Figures and Tables

Figures
3.1 The multidimensional poverty model 63
3.2 The multidimensional poverty space 70
4.1 The final multidimensional poverty model (Kathmandu) 91
5.1 The final multidimensional poverty model (US) 136

Tables
4.1 Standardized loadings in the multidimensional poverty model (Kathmandu) 93
4.2 R-squared estimates (Kathmandu) 95
4.3 Correlations among poverty dimensions (Kathmandu) 100
4.4 Total standardized effects of poverty dimensions (Kathmandu) 100
4.5 Summary statistics on poverty dimensions (Kathmandu) 102
4.6 Unidimensional poverty incidence (Kathmandu) 105
4.7 Multidimensional poverty incidence (Kathmandu) 106
4.8 Correlations among the poverty measurement outcomes (Kathmandu) 108
4.9 Unidimensional poverty among different demographic groups (Kathmandu) 109
4.10 Poverty among demographic groups (Kathmandu) 114
4.11 Multidimensional poverty among different demographic groups (Kathmandu) 116
5.1 Standardized loadings in the multidimensional poverty model (US) 138
5.2 R-squared estimates (US) 141
5.3 Correlations among poverty dimensions (US) 144
5.4 Total standardized effects of poverty dimensions (US) 145
5.5 Summary statistics on poverty dimensions (US) 148
5.6 Unidimensional poverty incidence (US) 150
5.7 Multidimensional poverty incidence (US) 151
5.8 Correlations among poverty measurement outcomes (US) 152
5.9 Unidimensional poverty among different demographic groups (US) 155
5.10 Poverty incidence among demographic groups (US) 157
5.11 Multidimensional poverty among different demographic groups (US) 158
1.1 Overview

Poverty has registered as one of the most intractable economic and social problems in the twenty-first century. It has undermined the enormous prosperity we have achieved, drawing universal policy attention regardless of the form or state of societies. Much of the underdeveloped world manifests pre-industrial social arrangements with the significant portion of its population unable to acquire basic necessities such as food, water, and shelter. The World Bank (2004) statistics show, for example, that 34 percent of the population was poor in South Asia in 2001, with the figure for Sub-Saharan Africa estimated at 48 percent.\(^1\) Despite enormous economic growth and achievement, the higher-income developing world still finds parts of the population falling significantly behind in quality of life. While the income poverty line applied to the underdeveloped world identifies 14 percent of the East Asian population as poor, a more appropriate, higher poverty line would set 42 percent as poor in this region (World Bank 2004).\(^2\) The developed world with unprecedented economic and technological progress, too, observes a considerable portion of its population unable to maintain a justifiably decent living standard. Studies report that the poverty incidence in the west European countries was as high as 22 percent with most of the countries observing rates higher than 10 percent at the turn of the century.\(^3\)

---

\(^1\) These statistics are based on the international $1/day of per capita income poverty line expressed in 1985 PPP values (World Bank 1990). If one uses a slightly higher poverty line of $2/day of income, the estimates would increase to 75 percent in South Asia and 74 percent in Sub-Saharan Africa (World Bank 2004).

\(^2\) Given a much higher level of living standard in high income developing countries, the $2/day income poverty standard would be more appropriate.

\(^3\) This was based on the 1998 data using the poverty lines defined as the 60 percent of the median income widely embraced in much of Europe (Immervoll et al. 2006).
Societies strive to make economic and technological progress happen for the benefit of everyone. This progress is expected to percolate, consequently improving people’s living standards. Because societies provide the opportunities people can harness for their personal enrichment, no one is expected to fall behind when the society in aggregate is doing better. It is precisely for this reason that societies in different stages of economic development consider different qualities of life as minimum and indispensable. Quality of life comparisons between underdeveloped and advanced countries are not justified for this same reason. Because economic and technological progresses are the cornerstones of one’s quality of life, quality of life comparisons need to take into account the degree of sophistication societies manifest.

Yet, there is nothing cut-and-dried in terms of the absolute versus relative notions of quality of life. There is some ‘absolutist core’ that human beings must achieve in order to live meaningful lives in the twenty-first century. One’s physical or mental state, for example, indicates what sort of life one is living. The quality of life in this sense takes the form of health, with both physical and mental qualities indicating the overall health. Health is universal; it is one prerequisite for quality of life regardless of the form or state of society. The basic needs approach to assessing quality of life employs this criterion to identify poverty status. Albeit basic in concept, this is difficult to operationalize as an accurate measure of quality of life. Since it is difficult to measure the state of physical and mental health, for example, policymakers often look at one’s ability to consume goods and services that if utilized normatively can lead to acceptable quality of life. While the inputs or the actual levels of consumption of these goods and services would be the closest proxy for the outputs or the quality of life, complexities arise in measuring the real inputs thus making the use of one’s ability to afford the inputs the only option for measurement.

This represents one of many controversies in coming up with a valid and widely agreeable approach to measure quality of life. Add to this the tension that emanates from the relative notions of living standard. This tension can take any form with the degree of health (or the degree of ‘un-health’) that is acceptable in a given society representing just one. Because the identified reasons for un-health may increase with technological advancement, with new technologies inventing new diseases or new ways of assessing health status, what is considered ‘healthy’ enormously changes over time or across societies with different levels of technological sophistication. Quality of life, therefore, is essentially relative to the overall condition of societies.
And this would be the case if we were to consider the state of physical or mental health as the basis for assessing quality of life. More fundamental in poverty measurement is what constitutes quality of life and what items ought to be included in the list manifesting such quality. Even more fundamental is the tone itself that policymakers often use in talking about poverty. Do policymakers always take poverty as a shortfall in resources needed to transform into quality of life? Not exactly! Only in certain societies is it seen this comprehensive way with most considering poverty primarily as an economic issue to be dealt with using economic measures. Most of the conventional research and policy analysis around poverty has adopted this narrow variant insisting on the fact that whether or not one is poor depends in a large part on the economic capability to afford basic necessities. While the notion of basic necessities essentially involves complex issues of quality of life, the latter is often defined in an incredibly narrow sense using yardsticks that represent outrageously indecent or indigent quality of life in both developing and advanced worlds. Only recently have researchers and policymakers realized the relevance of comprehensive approaches to define poverty from the quality of life perspective using both absolute and relative criteria. This has had enormous implications on the way poverty is measured and policies are prescribed.

Across the globe, country governments and international aid agencies dedicate large amounts of policy resources every year to improve the quality lives of the poor. Although most of this expenditure occurs in advanced countries with capability to generate large amounts of public monies, poverty has drawn considerable policy attention in developing countries thus necessitating large monetary commitments from within and cross-nationally. This policy attention has not produced much of the desired impact, however. While the population below poverty line has declined especially from the proportional standpoint, this has been as a result of tremendous commoditization of the economy. Because quality of life is mostly defined in commodity terms, this commoditization has helped attain larger poverty reduction goals. When one is able to increase income, for example, he or she is considered to make a real gain in quality of life, irrespective of the cost that has made this increased income possible, including the changes in the economic structure of society due to expanding market mechanisms. What is needed, therefore, is an innovative approach to more accurately measure poverty and to identify adequately informed policy priorities for poverty reduction. Appropriately identifying

---

4 In South Asia, for example, poverty headcount ratio declined over eight percent following both national and international ($1/day) poverty lines in the past two decades alone (Wagle 2007a).
the degree of poverty experienced by different groups of people is profoundly important in this process.

1.2 Concept

Many studies attempting to understand poverty focus on economic factors with the implicit assumption that the lack of economic well-being and poverty are synonymous. But quality of life as the final outcome is related more to consumption than to income because, even with low income, people may be able to maintain a high level of consumption, thus attaining some degree of well-being. This leads to the question of how cognizant people are about the general issues of consumption and well-being which might depend on their educational status or informational base. This further invokes the issues of defining and measuring quality of life with perhaps such indicators as health, nutrition, household environment, adequate physical and mental development, and the like. Even if not all of these factors are directly relevant to measuring quality of life, they essentially have some bearings on doing so suggesting that attempts to measure poverty ought to include factors that are beyond income and consumption.

The popular contestations about the absolute and relative concepts have also contributed to the difficulty in defining and measuring poverty following this economic well-being approach. Far more important than the absolute and relative debate, however, is the inability of the economic well-being approach to fully explain what it means to be poor socially, politically, and even psychologically. While there is a strong relationship between economic well-being and poverty, which can be further complicated by such non-income issues as consumption, identifying the actual poverty status is a more intricate task than any single approach attempting to measure economic well-being can possibly handle.

Many studies conducted especially in the developing world place ‘freedom,’ ‘capability,’ and ‘functionings’ at the core of the poverty debate. Viewing poverty as a lack of ability to achieve a decent level of human well-being, proponents of the capability approach conceptualize it using individual capabilities represented, for example, by education, health,

---

5 No matter whether the particular concern is one of income, consumption, or welfare, the issue revolves around economic well-being. Although economic well-being can be, and has been, defined variously, at the most fundamental level it is about avoiding human deprivation or about having adequate means for survival. See, for example, Citro and Michael (1995), Hagenaars (1991), Lipton (1983), MacPherson and Silburn (1998), and Wodon (1997) for details.
nutrition, respect, and gender disparities. The argument is that significant poverty problems will erode once individuals enjoy an adequate degree of freedom as indicated by their capability to function or achieve certain level of well-being. Although it is plausible to conceive human well-being as a function of freedom with functionings and especially capability as its indicators, the capability approach alone may not fully capture what poverty is all about. It may not provide complete explanations, for example, for why people with identical degrees of capability are not equally poor. This suggests that society and social mechanisms have important roles to play in determining one’s quality of life.

The social exclusion approach regards poverty as a consequence of social processes. That some people tend to be poorer than others, from this perspective, has to do with those social processes and institutions that support or inhibit household participation in economic, political, and civic/cultural activities. More specifically, it is the process of exclusion from, or inclusion in, society that inhibits people from benefiting from the market as well as publicly available resources. The most fundamental argument is that the existing social institutions and orders preclude some people from participating in different activities central to resource generation and redistribution. A lack of meaningful participation in the labor market, for example, automatically results in a lack of resources needed to secure a non-poor quality of life. A lack of political participation indicates one’s incapacity to affect the policy processes with enormous implications for the resulting quality of life. Participation in civic and cultural activities is also important to improve one’s relational quality of life. Although the social exclusion approach with its more comprehensive coverage makes significant contributions to the process of identifying poverty status, it does not necessarily equate poverty. There are other important factors such as those captured in the concepts of economic well-being and capability that reinforce poverty status, thereby determining one’s locus in the social processes.

The concepts of economic well-being, capability, and social exclusion do not necessarily signify new developments in poverty research. These concepts have been widely used to define, measure, and/or explain at least some aspects of poverty depending on the specific context and interest. In essence, these different approaches have been used to broaden the concept of poverty itself from narrower sense of lowness of income to a set of

---

resources needed to achieve quality of life. Going beyond these individual approaches, however, there are compelling arguments for defining poverty more comprehensively thus focusing on its separate dimensions. Yet, while the notion of multidimensional poverty has been much in vogue among poverty researchers, efforts to measure it thus far have been limited to using a few observable indicators including financial difficulty, housing condition, amenities, education, and the like.

In its face value, poverty is defined as a shortfall in resources needed to secure a decent quality of life with physical and mental states indicating the true quality. Yet, not everyone values the physical and mental states equally, neither is there a universal agreement on the way to measure it. This brings us back to the position where we cannot directly measure the actual outcome. We, therefore, have to rely on some input measures that can help achieve the desired quality of life if a person chooses to do so. This in other words is to determine whether or not one has the ingredients fundamental to making a decent quality of life happen.

Viewed from the quality of life perspective, poverty has both individual as well as social dimensions. A decent quality of life, for example, does not just require good health, it also necessitates one’s ability to get along with others in society. The notions of economic well-being, capability, and social exclusion, in essence, capture one’s ‘material,’ ‘inner,’ and ‘relational’ ingredients needed to have a decent quality of life. These essentially are the different components forming a compelling basis for a genuinely comprehensive, multidimensional approach to poverty measurement. By broadening the definition of poverty, this book provides theoretical bases for integrating its economic well-being, capability, and social exclusion dimensions, develops an appropriate operational framework, and applies it to measure poverty in two very different contexts.

Using recent survey data from Kathmandu, it examines the relevance of the approach in Nepal. One can expect a significant proportion of the population to be poor in this least developed country. And, it is not just the absolute economic capability that matters because one’s quality of life needs to be viewed from the position of the overall society. Given that

---

8 Because some people do not choose to use the input measures to enhance their quality of life as defined by policymakers, it is unfair to look at the outcome measures of quality of life to assess poverty. While some have attempted to use the outcome measures to assess quality of life or poverty, Sen (1985a, 1987) argues against such practice, for people attach different values to different quality of life outcomes. The fact that some people choose to fast for religious purposes, despite ability to afford food, does not mean, for example, that they are poor even if it leads to a poor health status.
Nepal has established itself as the both poorest and most highly economically unequal country in one of the poorest regions of the world, this case identifies the applicability of the multidimensional approach in this particular setting. Nepal also exemplifies a case where reduction in absolute poverty has been phenomenal, despite tremendously increasing economic inequality and slow economic growth.

Another application in this book takes on the case of the United States. No doubt, the United States has a much lower rate of income poverty. Partly, however, this depends on the specific basis and the threshold used to measure poverty. Economic inequality massively increased in the United States during the past few decades, which according to some, has worsened the condition of those at the lowest wrung of society (Brady 2003; Glennerster 2002; Smeeding 2005; Smeeding et al. 2001). It is important to examine whether and how, if any, the measurement outcomes using this approach vary from those using other traditional approaches. Where as Nepal and the United States are incomparable economically, socially, and in many other respects, this application will be useful to examine the sensitivity of the approach to different contexts. If the approach is to be universally applicable, it needs to provide accurate and useful poverty measurement outcomes in any given context.

Findings suggest that the multidimensionality of poverty holds in both contexts and that the multidimensional approach provides outcomes that are more accurate but still in line with those from the conventional approaches. Its successful application in two highly different contexts further suggests that the approach has universal applicability with a potential to provide information enormously useful for policymaking. Because the multidimensional approach makes use of comprehensive information, results indicate that the measurement outcomes can be more

---

9 Statistics show that the distribution of consumption expenditure in Nepal is the most unequal in South Asia, as indicted by a jump of 17 points in its Gini coefficient during the past two decades to 47 in 2004 (Wagle 2007b). The next economically unequal country in this region, India, had a Gini coefficient of 36 for the comparable period.

10 The progress in reducing the absolute income poverty has been remarkable in Nepal especially during the last decade. During this period alone, the poverty headcount ratio—which measures the number of people in poverty relative to the size of the population—declined 15 percentage points to 24 percent following the international poverty line of $1/day of income and 11 percentage points to 31 percent following the national poverty line (Wagle 2007a).

11 In the United States, for example, over 12 percent of the population was identified as the poor in 2004 following the official poverty line (Census Bureau 2005).
accurate and thus useful to specifically target policy resources at different groups of the poor. With the ability to identify poverty status using different dimensions of poverty, manifesting different forms of policy needs, this approach provides an important value added to policymaking and policy targeting.

Yet, it is important to fully acknowledge and appropriately operationalize the complexity of the relationships among the three poverty dimensions. The three dimensions of poverty including economic well-being, capability, and social exclusion are enormously intertwined but their relationships are more complex than studies have hitherto suggested. While generally positively correlated, for example, capability may not necessarily lead to better outcomes on economic well-being neither may a high level of economic well-being lead to a high degree of integration in the mainstream society. Rather than creating obstacles, however, this complex relationship provides another compelling reason for integration of these poverty dimensions. The complex relationship provides an important basis for understanding the mechanisms detailing the potential effects of various policy measures on reducing poverty. An additional, empirically supported understanding of the specific nature of the relationships among the three dimensions would help policymakers introduce programs and policies that can effectively tackle poverty. This will do a great service to the poor experiencing poverty in their everyday lives as well as to the taxpayers who eventually assume the financial responsibility of such programs and policies.

One must acknowledge that the comprehensive amount of data needed for analyses like this make the case more difficult to justify. The lack of relative simplicity in that the measurement outcomes tend to be more abstract given the need to aggregate many indicators further complicates the wider application of this approach. Nevertheless, the usefulness of the measurement outcomes to better understand the living condition of the different categories of the poor would far outweigh these complexities and compromises. It is my hope that further refinement in the framework with more specific and useful indicators and methodology will improve its applicability in policy research.

1.3 Organization of the Book

Based on a comprehensive survey of the literature on poverty, this book develops an operational framework of multidimensional poverty measurement and applies it in two specific contexts. This book therefore provides a
through treatment of both theoretical and methodological issues in poverty measurement. It is composed of six chapters. Chapter 2 surveys literature on the three contemporary approaches applied to conceptualize and measure poverty. Although poverty research has almost exclusively relied on the traditional economic approaches, the past few decades have seen a significant development in other innovative approaches. This chapter surveys the theoretical developments in these traditional and innovative approaches.

The economic well-being approach, for example, represents the most widely used one primarily focusing on income and/or consumption as the indicators to gauge one’s ability to secure material quality of life. Where as the traditional focus of this approach is on economically informed objective assessments, the treatment here is more comprehensive including both relative and subjective elements. Another approach discussed in this chapter is the capability approach, increasingly espoused to conceptualize and measure poverty. What is important under the capability approach is the degree of freedom one has been able to enjoy thus leading to the life he or she values and has reason to value. Since it is about one’s own capabilities, using Sen (1985a, 1987, 1992, 1999), Nussbaum (2006), and others such as Alkire (2002), the focus here is on its relevance to predict the inner quality of life. The social inclusion\(^{12}\) approach employs even more comprehensive expositions. Originated in Europe and increasingly used elsewhere, this approach focuses on the processes and institutions that dictate the relationship with society, thus determining one’s status on the relational aspect of life. Chapter 2 argues that maintaining a decent level of social integration is essential to improve the overall quality of life. People may be systematically excluded, for example, because of their identities in society thus denying the opportunity to be equal citizens with implications on the extent and quality of integration. While inclusion can take many forms, research suggests that economic, political, and civic/cultural inclusion have both constitutive and instrumental values.

This chapter also examines some political economy issues attached to each of the three approaches in an attempt to clarify their underlying concepts and relevance. Yet, there exist considerable conceptual and operational difficulties in measuring poverty. In case of the economic well-

\(^{12}\) ‘Social inclusion’ is used as the antonym for ‘social exclusion’ for its positive tone and consistency with ‘economic well-being’ and ‘capability.’ Alternatives to social inclusion would be social integration or social incorporation. While some (Glorieux 1999; Silver 1994, 1995; Silver and Miller 2003) use social integration for its more straightforward connotation, my motivation was to find the closest antonym for social exclusion so that a more direct corollary could be maintained.
being approach, for example, whether to use income, consumption, wealth, or subjective views to determine one’s poverty status is debatable with each offering benefits and costs to the measurement outcomes. Because the issues relating to capability and freedom are highly abstract, they are difficult to operationalize for practical application. How do we measure the extent of freedom, for example, when it takes many forms, sizes, and shapes? This chapter sorts out some of the problems that often arise in the measurement of capability. The measurement of social inclusion is even more problematic as it necessitates dealing with multiple aspects of inclusion and their potential indicators. While economic, political, and civic and cultural inclusion signifies core elements of social inclusion, this chapter discusses some difficulties in meaningfully measuring them, with important implications for the overall poverty measurement outcomes.

Chapter 3 is devoted to the theoretical and methodological treatment in developing a multidimensional approach to poverty measurement. It examines theoretical bases for integrating these three related and yet separate approaches, with development of an appropriate operational framework. These three conceptualizations of poverty share commonalities in the elements being measured. But existing research has largely failed to acknowledge the potential value added that arise from their integration. Where as capability and social inclusion represent the individual and social dimensions of one’s ability to effectively function in a society, only recently have researchers started to talk about the similarities and synergies that these two theoretically rich expositions jointly offer to poverty measurement.

This chapter argues it is logical to integrate the three measurement approaches capturing the material, inner, and relational aspects of human life for more accurate and realistic measurement outcomes. While researchers increasingly underscore the essentially multidimensional character of poverty, specific conceptualizations thus far have been exceedingly narrow manifesting their inability to capture its true multidimensionality. The argument is that incorporating multiple dimensions in measurement allows an interplay among the poverty dimensions as happens in the real world thus jointly determining the poverty status. Some dimensions may be more important in a given context but the basic premise is to incorporate their relative strength in the measurement. This approach makes more comprehensive assessments, offering a great value added to better understand poverty. This chapter also identifies indicators relevant to measure the different poverty dimensions as substantiated by the previous research.

This chapter also develops a generic version of the multidimensional framework. It starts with unidimensional models and then advances to the multidimensional form, making the steps simple to follow. While the
model is generic, it is suitable for estimation using structural equation modeling (used here), factor analysis, or any other indexing method with the ability to generate different resources needed to determine the overall quality of human life. Additionally, since the model provides a rank-order for each observation or individual in the dataset on each poverty dimension, it provides different alternatives to aggregate these dimension specific rank orders to derive the overarching multidimensional rankings needed for further analysis.

Chapters 4 and 5 cover application of the multidimensional approach to measure poverty in Nepal and the United States separately. While these two countries exhibit very dissimilar contexts, they will help identify the applicability of this approach in different settings. A successful application in these two contexts provides evidence for its universal applicability.

Chapter 5 carries out an empirical analysis of poverty measurement in Nepal using survey data from Kathmandu and discusses policy implications of the findings. It discusses the context and data and, based on the model estimates, identifies the empirical relevance of different poverty dimensions and their indicators. It provides poverty measurement outcomes and identifies the characteristics of the different categories of the poor. The underlined hypothesis is that the different dimensions estimated here will be positively correlated, if the multidimensional approach is to be relevant. These correlations and even the effects of some dimensions on others will vary in size suggesting that some dimensions will be more relevant to measuring poverty, depending on the specific economic and social context. As expected, for example, the capability dimension exhibits its relatively larger power in determining poverty status in Nepal. Using the absolute and relative notions of poverty, this chapter classifies the poor into different categories, including the ‘abject poor,’ ‘very poor,’ and ‘poor’ reflecting on the degrees of poverty experienced. The demographic characteristics of the unidimensionally and multidimensionally identified poor offer more grounded understanding of the demographic structure of poverty with appropriate cross-sectional comparisons.

Results paint a clear picture of how poverty is constructed in this context. The ‘abject poor’ on the multidimensional scale is one who falls in poverty on each of the three dimensions, whereas the ‘very poor’ falls in poverty on any two dimensions. The rest of the population identified

\[\text{13 The specific thresholds for the unidimensional poverty categorization include the 10 and 30 percent absolute poverty targets (percentage of the population that are considered poor using the existing income or consumption based approaches) and the standard relative poverty criterion defined as 50 percent of the median score.}\]
as the ‘poor’ is poor on only one of the dimensions. These findings are relevant to draw specific policy priorities to address the needs of the different categories of the poor. This chapter discusses these policy priorities, along with ways to deal with the concentration of the more severely poor in certain demographic groups and locations.

Chapter 5 applies the multidimensional approach in the United States using data from the 2004 General Social Survey. It discusses the context and data and carries out an empirical analysis of poverty measurement. Despite considerable data constraints disallowing the use of some theoretically pertinent indicators, findings uncover somewhat similar dynamics in terms of the greater role of capability in determining the overall quality of life. Unlike in Kathmandu, a considerably larger segment of the population appears to be ‘poor’ in the United States with a smaller segment of them categorized as the abject poor. Despite these differences and differences in the degree of correlations and effects of poverty dimensions on others, however, there is compelling support for applying the multidimensional framework in the United States. Also, the findings regarding the characteristics of poverty, although somewhat consistent with those suggested by traditional poverty studies, go beyond the notion that all of the poor are the same, thus providing a more grounded understanding.

This chapter also discusses important policy implications in the United States focusing on the results with the identification of poverty status and the characteristics of the various poverty categories. These implications are not confined to ascertaining the appropriate policy prescriptions for different categories of the poor. They essentially extend to targeting different categories of the poor overrepresented in certain demographic groups especially along the lines of race, marital status, and presence of children.

The final chapter puts the overall findings of the study in a larger context. It underscores the argument that poverty is essentially multidimensional as backed by the empirical findings from both Nepal and the United States. It broadly discusses the role of material, inner, and relational resources in determining the overall quality of life. The argument is that the role of the state is extremely pivotal in determining not only the process that conditions attempts to achieve better qualities of life but the policy outcomes that attempt to redistribute both power and resources. It is for this reason that focusing on the individual level efforts is largely inadequate to capture one’s access to a variety of resources that eventually produce the quality of life outcomes. Also included in this chapter are the suggestions for further development in the application of the multidimensional approach.
1.3 Organization of the Book

More specific data are needed with broader coverage of the potential indicators of the three dimensions of poverty to determine whether or not the theoretically specified relationships exist in each case. The next direction for future research especially for public policy purposes is to more systematically investigate the characteristics that are sufficient to determine one’s poverty status. While the use of multiple indicators makes this process more complicated, this requires identification of a specific set of indicators to measure each poverty dimension as well as to determine the normative adequacy of resources needed to avoid poverty.
2.1 Overview

Historically, poverty has had economic connotations. The basic premise is that one in poverty does not have the income or other economic resources needed to maintain a ‘decent’ quality of life. While poverty has been analyzed using the monetary estimates of income or consumption, it is the capacity to consume that assumes the central role in determining whether or not one is poor. With the argument that these purely economic approaches have failed to accurately capture the degree of poverty experienced, poverty researchers have increasingly sought to explore alternative, more innovative approaches to conceptualize and measure poverty. Capability and social inclusion represent two of such approaches developed in the recent past. Recognizing the multifaceted character of poverty, these approaches demonstrate the need to go beyond material resources to assess one’s ability to achieve a non-poor lifestyle. Capability approach, for example, focuses on the freedom aspect of life with the argument that a lack of meaningful freedom disallows one to achieve valued ‘functionings’ including a decent living standard. Social inclusion approach goes even further, suggesting to look at the societal and institutional factors that play key roles in determining one’s living standard.

This chapter surveys the relevant literature on the concepts of economic well-being, capability, and social inclusion, as they apply to poverty and quality of life. The central idea is to focus on the conceptual similarities among these separate and yet highly interrelated approaches to poverty measurement. It is important to identify the political economy roots and justifications of these approaches with the underlying theme of poverty measurement. In each case, it discusses the measurement issues that come up in trying to identify who is poor and who is not with implications for the different operational issues.
2.2 Economic Well-being

The most widely used concept of poverty relates to the lack of economic well-being, focusing on the quantifiable ways of defining and measuring it. While there are many ways poverty has been defined following the economic well-being tradition and while there are many dimensions poverty may take, these definitions and dimensions point essentially to the common theme of ‘economic deprivation.’ Given the diverse ways in which poverty is understood with some focusing on the physical or material aspects (Citro and Michael 1995; Smeeding 2005) and others focusing on the outcome or the standard of living aspects (Nolan and Whelan 1996), some see it important to combine the two aspects. Ringen (1987), for example, understands poverty as a low standard of living resulting from the inadequacy of resources. While the notion of quality of life essentially offers much broader generality, what indicates its economic well-being variant is what has been historically emphasized in conceptualizing poverty. The focus under the economic well-being approach has been primarily on the insufficiency of economic resources for human consumption.

The notion of economic well-being relates to the physical quality of life or welfare for which consumption of not only food but clothing, shelter, and other basic necessities is important. Citro and Michael (1995:19) observe, for example, that poverty “pertains to people’s lack of economic resources (e.g., money or near-money income) for consumption of economic goods and services (e.g., food, housing, clothing, transportation)” (parentheses in the original). Although this definition rests on the concept of economic resources needed for consumption, this does not fully specify the type and magnitude of consumption. A true indicator of the physical quality of life, for example, is the status of health as it can accurately gauge the state of one’s physical life (Morris 1979). While the material or physical quality of life involves factors other than what can be acquired in the market, almost all of such factors can be construed as a function of the consumption items available in the market. It is, therefore, the consumption of basic necessities that captures the notion of economic well-being. When it comes to measuring the physical quality of life, however, it is not always the consumption that is used, for it is difficult to

---

1 More specifically, Morris (1979) focused on infant mortality, life expectancy, and adult literacy as the different aspects of the physical quality of life index (PQLI). Although only the first two of these are related to health, one can expect that both will be highly correlated with adult literacy.
accurately measure one’s true consumption. Any attempt to accurately measure consumption would meet considerable complexity. In addition to its nutritional value, for example, consumption manifests tastes and preferences conditioned by time, place, weather, culture, symbol, and other factors. For these reasons, income has been a widely used proxy measure of consumption assuming that it can capture not only the ability to consume but the actual consumption as well.

No doubt, difficulties arise in measuring income to the precision that it can effectively measure how much consumptive capacity one has and that the person is actually maintaining that level of consumption. Yet, using income to measure the level of economic well-being has been so ingrained in the real world that poverty immediately gives the impression of income deficiency. Added to this are also the complexities in objectively determining what constitutes basic necessities and what level of income is needed to acquire such necessities. Despite this, almost every national and international poverty threshold used today represents some variant of the economic well-being approach. For example, the poverty lines developed by Rowntree (1901) in the United Kingdom, by Orshansky (1965) in the United States, and by the World Bank (1997) for international comparisons are all based on some assumptions regarding the level of consumption for specific sets of population for given time and context. Because the notion of economic well-being looks simply at the economic welfare of people, poverty lines such as these often exclude from the equation the non-economic aspects of welfare or non-physical aspects of quality of life. Issues such as tastes and preferences, happiness, and psychological aspects of the quality of life, for example, do not carry any weight in determining one’s poverty status. Although this leaves out the chance that some other ways of measuring poverty may yield more accurate measurement outcomes, giving rise to other concepts and approaches discussed later, governments in both developing and developed countries find economic well-being based poverty lines more appealing especially due to their simplicity, accessibility, and comparability over time and across societies (Citro and Michael 1995; Wagle 2002).

---

2 This does not prevent from using consumption as the basis of poverty measurement, however. In fact, most of the poverty lines used in developing countries almost exclusively focus on consumption as the basis of measurement not only because the monetary estimates are easy to elicit but, more importantly, accurately estimating incomes would be even more challenging (Pradhan and Ravallion 2000; Wagle 2007a).

3 A poverty line or threshold specifies the amount of income (or wealth) needed to maintain a non-poor lifestyle (Gordon and Spicker 1999). It is used to identify the population in poverty for policy, administrative, and research purposes.
Because economic well-being is a function of income, consumption, and welfare, partly or in combination, researchers and policymakers have developed different variants of poverty lines depending on the value that the society attaches to them. Similar variations of poverty lines have been developed using the absolute, relative, and subjective criteria. This suggests that there is a possibility of having nine different types of poverty cutoffs.

At the most fundamental level of economic well-being is the notion of absolute poverty, which indicates the lack of basic means of survival. Here, one’s non-poor status is defined as the ability to avoid absolute deprivation. Poverty is defined in terms of basic needs, usually the amount of income required to acquire a minimum level of food calorie intake, a minimum basket of consumption goods, or a level of individual welfare or utility needed to live a basic life (Hagenaars 1991; Lipton 1983; MacPherson and Silburn 1998; Wodon 1997). In this sense, while income, consumption, and welfare do appear to be different, they are interrelated and are directed at the level of goods and services needed to live a decent quality of life (IILS 1996).

Following the absolute income approach, for example, the World Bank (1990, 1997) defines poverty line based on per capita income of $1/day. The official poverty line in the United States is another example of absolute consumption standard. Incorporating the basic needs oriented absolute consumption approach, the International Labor Organization defined poverty line in terms of the minimum requirements for food, shelter, clothing, and other essential services such as transportation, sanitation, health, and education (ILO 1976). By dividing poverty into extreme poverty (the lack of income required to meet basic food needs) and overall poverty (the lack of income required to meet both food and non-food needs), however, the UNDP (2000a) argues only the former represents absolute poverty. These income or consumption based absolute

---

4 Expressed in 1985 purchasing power parity (PPP) international dollars, this poverty line was developed as the mean of the official poverty lines of a group of low income developing countries (Ravallion et al. 1991). In 1993 international PPP dollars, the similar approach yielded the international poverty line of $1.08/day and yet is referred as the $1/day poverty line (Chen and Ravallion 2001).

5 It incorporates the concept of subsistence living as it is developed originally by estimating the incomes needed to acquire the ‘basic’ basket of food items and by multiplying that income by three to include living and other expenses (Orshansky 1965).

6 Here, the UNDP approach to defining poverty can be bit confusing; it includes food as basic minimum and yet shelter and clothing as non-food and perhaps ‘non-
poverty lines have become a norm today in almost every developing country.\footnote{ILO has prepared a compendium of poverty lines in use in developing as well as industrial countries. Some countries have more than one poverty line in use. See Tabatabai (1996) for details.}

Relative poverty is another dimension of economic well-being, expressed in income, consumption, or welfare terms. Applying the relative income approach, people are considered poor when they lack a certain amount of income in relation to the overall distribution in society. Because of its relative character, poverty lines established using relative criteria may change together with change in the distribution of income, consumption, or welfare over time and across societies. Assuming 50 percent of the median income would allow people to enjoy a decent living standard, Fuchs (1965) suggested in the early 1960s that those with less than 50 percent of the median income would be considered poor in the United States. This relative poverty standard is widely used today in the international poverty research (UNDP 2000a; Wong 1995) with most European countries adopting its 60 percent variant (Glennerster 2002; Immerroll et al. 2006; Kahn and Kamerman 2002). Similarly, the relative consumption approach tends to delineate those who have above average or some other acceptable sets of consumption level in society. The ‘overall poverty’ as defined by the UNDP (2000a) serves as an imperfect example of the consumption oriented relative poverty line.\footnote{This is an imperfect example because, in setting the international poverty line, the UNDP has arbitrarily valued the consumption necessary in various societies, without taking cultural, geographic, or value aspects into consideration.}

The absolute and relative poverty lines discussed above are developed by looking objectively at income, consumption, and welfare. In contrast, the third, subjective—or ‘self-assessment’ as Streeten (1998) calls it—approach looks at the same substances through subjective lenses. It does so by applying different poverty concepts, monetary and non-monetary, as viewed by people themselves.\footnote{Different forms of poverty, for example, include such concepts as cumulative poverty—combining monetary poverty, poor living conditions, and feeling of inability to deal with difficult conditions—and selective poverty—people who say they are not poor but are generally manifesting poor living conditions (Strobel 1996).}

In this regard, many attempts have been basic’ needs. Moreover, the non-food needs are referred to be within the purview of relative poverty as if a minimum standard of living does not include clothing, housing, and other amenities (UNDP 2000a). Yet, this is precisely how national poverty lines are developed in developing countries. See Wagle (2007a) for details.
made to derive some subjective poverty standards through opinion polls and surveys in which respondents are asked to indicate the levels of income, consumption, or welfare deemed necessary to have a non-poor life style. Surveys include what are called ‘Minimum Income Questions’ regarding the sufficiency of incomes to derive poverty standards applicable to households with different characteristics which are then aggregated to develop appropriate poverty thresholds (Gordon 2000; Hagenaars 1986; Pradhan and Ravallion 2000; Streeten 1998; Saunders et al. 1994). Similarly, there have also been applications of income and welfare oriented subjective poverty standards in which respondents are asked to evaluate certain income levels to be ‘insufficient,’ ‘good,’ or ‘very good’ from the welfare standpoint (Hagenaars 1991; van Praag 1968).

2.2.1 Political Economy Issues

The practice of equating quality of life with economic well-being relates to the concept of commodification of labor power. In the free market society, Marx (1891) argued, the working class would not be able to maintain certain quality of life without selling the labor power. At the same time, the capitalist system would maintain an unemployed, ‘industrial reserve army’ to compete with the employed, thus driving the wages down. The fact that some need to be available for work at all time suggests that they need to be able to carry out the low-skilled labor largely expected of them. The quality of life expected of such unemployed people, therefore, is ought to be sufficiently ‘crude’ or substandard that this does not place any real burden on the society. The notions of subsistence living and subsistence level of income refer to the level of economic well-being that is barely adequate to meet the basic needs, clearly distinguishing those who do not meet them from the rest in society.

From the structural standpoint too, an absolute or relative surplus of population results in society due to technological advancements (Marx 1970). This surplus population including the paupers, unskilled and semi-skilled proletariats, and even ‘lumpenproletariats’ cannot find employment because of the structural changes in the economy especially driven by the constant quest of the capitalist class for alternative ways of production thus reducing the labor cost. The notion of ‘social class’ that Marx, Weber, and others posited (Sackrey and Schneider 2002) provides further impetus

---

10 The unprecedented global integration that has taken place causing massive structural changes to the economies in both developing and industrial countries clearly vindicates what Marx explained in the nineteenth century.
for the expectation that the living standard of the poor from the lowest wrung of society ought to manifest certain essential qualities. Such living standard, however it is maintained, typically does not include the amenities or the physical or non-physical components possessed by others in society. Women, whom Marx considered a part of the oppressed social, class regardless of their household status, also needed to manifest such subsistent living standard in order to perform the fundamental reproductive duties thus providing a constant supply of the ‘reserve armies.’ From this perspective, the notion of economic well-being or physical quality of life indicates that one holds “a basic standard of physical capacity necessary for production (paid work) and reproduction (the bearing and nurturing of children)” (Parentheses in the original; Lister 2004:21).

Where as Marxists view issues from an antagonistic viewpoint of the free market capitalism, a more pragmatic approach is to assess the quality of life from basic needs perspective. Drawing on Maslow’s (1954) hierarchy of needs, propounded in the context of human resources and motivation, the notion of basic needs widely investigated in the 1960s and 1970s suggests that such physiological needs as hunger, thirst, bodily comforts, etc. represent the most basic physical needs that human beings manifest. Because of the basic nature of these needs especially necessitating physical goods to meet them, these provide a basis for assessment of one’s basic living standard. These physical needs including food, clothing, housing, and other essentials are established by the United Nations (1948) and other country governments as people’s fundamental rights. In essence, almost all economically derived poverty standards no matter whether they focus on income, consumption, or a combination of the two incorporate the basic needs perspective. The notion of basic level of consumption underpins, for example, the official poverty line in the United States, the international poverty lines set at $1/day or $2/day of income, and even other country specific poverty lines based on certain amount of food calorie intake, as each is derived from the consumption of food and other basic essentials.

The issue, however, is not so much about whether the idea of basic needs is appropriate as it provides a practical way of conceptualizing poverty with enormous usefulness in redistribution policies. It is, instead, one of specifying the basic needs and determining what ought to be included in the list of items constituting the basic human needs. This essentially invokes the issue of ‘basic needs for what’? The question is partly philosophical involving the constitutive or intrinsic values of

---

11 See Wagle (2007a) for a survey of the official poverty lines in South Asia, including Nepal, employing the basic needs approach.
fulfilling the basic needs, however they are defined. Partly, the question is political since it is the political process that is often used to settle it as is the case with societies looking for ways to define needs as conservatively as possible so that the policy resources required to address poverty could be kept to a minimum. This is also a point where the overarching idea of well-being or quality of life needs to be defined essentially involving value judgments over whether it ought to focus on the physical aspect of life for which the market puts some economic values or to also include the nonphysical aspect of life for which there is no economic value. As Lister (2004) observes, for example, human needs are recognized to be so diverse that they can be partly universal especially in case of physical needs and partly conditioned by social, historical, and cultural contexts, thus reflecting on the preference of societies. But since the notion of economic well-being narrows the idea of quality of life to those needs that have economic values, the issue boils down to identifying needs of economic value at an acceptable level on which the issue of absolute and relative criteria takes precedence.

There is a contentious argument over the absolute or relative nature of human needs and thus poverty lines used to separate the poor from the rest of the population. Suggesting the universality of some and especially physical needs, proponents of the absolute human needs argue that there is an ‘irreducible absolutist core’ such as food and nutrients that everyone needs in order to avoid poverty (Sen 1983). Poverty lines that Rowntree (1901) defined in the turn of the nineteenth century in London and Orshansky (1965) defined in the 1960s in the United States recognized this irreducible core in terms of the consumption of food, housing, and other non-food items. Poverty lines based on consumption of some pre-determined food calorie intake that are almost a norm in most societies today also manifest this absolute deprivation concept. This is even more relevant where the aggregate capacities to feed everyone well are low and where the general food calorie intake tends to directly affect productivity (Dasgupta 1993; MacPherson and Silburn 1998).

With the conviction that one’s needs are conditioned by what others have in society, proponents of the relative poverty argue that human needs

---

12 The debates over the official poverty lines in the United States are quintessential. While there is a widely perceived inadequacy of the official poverty lines to capture the notion of basic needs in today’s society (Citro and Michael 1995; Iceland 2003; Joassart-Marcelli 2005; Short 2001), the Census Bureau (2006), the agency officially responsible to updating poverty lines, uses experimental poverty lines that result in significantly lower poverty headcount ratios.
are dynamic in nature and evolve through time and place. Since the overall quality of life changes across societies and over time, Galbraith\(^\text{13}\) (1958), Townsend\(^\text{14}\) (1970), and others (Fuchs 1967; Miller and Roby 1970; Rainwater 1969) argue that poverty lines thus derived ought to be essentially relative moving in the same direction as the overall qualities of life. Because most of the basic physical needs such as food calorie intake or the type of housing are socially constructed (Townsend 1993), this idea of relative poverty is in contradiction with that of absolute poverty.\(^\text{15}\) Even the famous quote from Adam Smith (1776) indicating that poverty relates to the inability to ‘appear in public without shame’ provides a relative space for comparison in which the use of linen shirt as a frame of reference would have changed today to some sort of designer clothes.

It is obvious that part of the contention between the absolute and relative criteria has to do with how one views inequality. The issue of inequality deserves special attention while applying the relative criteria as the qualities of life of different segments of the population may move in different directions (Haveman 1987). From the economic well-being standpoint, for example, those at the bottom may be experiencing substantial improvement in their qualities of life where as the rest in society remain indifferent or report diminishing qualities of life. Alternatively, the quality of life may be improving in a society in general all the while those at the bottom may not be experiencing any improvement in theirs. One can think of an array of situations like this but in reality finding cases with markedly improved status of those at the bottom and yet with markedly diminished or even unimproved status of those at the top would be rare.\(^\text{16}\) In contrast to

\(^{13}\) According to Galbraith (1958:23–24), “People are poverty-stricken when their income, even if adequate for survival, falls markedly behind that of the community. Then they cannot have what the larger community regards as the minimum necessary for decency; and they cannot wholly escape, therefore, the judgment of the larger community that they are indecent. They are regarded for, in a literal sense, they live outside the grades or categories which the community regards as acceptable.”

\(^{14}\) While he broadens the concept of the overall quality of life as the basis for assessing one’s poverty status, Townsend (1970:42) argues “…the possession by individuals and families of relatively low resources does not automatically mean they are in poverty, but only if they are thereby unable to have the types of diets, participate in the activities and have the living conditions and amenities which are customary in that society.”

\(^{15}\) The fight between Sen (1985c) and Townsend (1985) is quintessential of the tension between using the absolute and relative criteria.

\(^{16}\) It is precisely for this reason that Sen (1976) viewed the ‘transfer axiom’ fundamental to driving the enterprise of accurately measuring poverty. The Sen
many countries including in the European Union, for example, the United States represents a country in which the top quintile has increased the quality of life as measured by income where as the bottom quintile has witnessed the quality of life attenuate in the past few decades (Glennerster 2002; Smeeding 2005; Smeeding et al. 2001). Unlike the proponents of the absolutist view, those advocating the relativist view suggest that the poverty thresholds designed to separate the poor from the rest ought to reflect on the overall movement that those at the bottom of the ladder are making compared to the rest in society. What happens to the majority of the population drives the overall social norms and preferences regarding consumption, needs, and the overall living standard.

Because one’s needs are conditioned by the level of overall well-being in society, those focusing on relative poverty see distributional issues to be central to developing poverty thresholds. While this invokes broader issues of whether or not inequality in the distribution of economic resources is justified in a well-ordered society (Friedman 1982; Friedman and Friedman 1980; Nozick 1980; Rawls 1971, 2005), this also has implications for establishing needs as a reasonable basis for demarcation of the quality of life of the poor relative to those of the non-poor. Since the purpose of determining who is poor and who is not is to identify the population that needs policy resources to improve the quality of life to an acceptable minimum level, this process is essentially political. It is political because pro-poor poverty thresholds will call for a more extensive reform to redistribute resources thus arousing dissention in a society where inequality is rather high. Since the absolute poverty threshold does not move together with changes in inequality in society, on the other hand, there will be less concern for redistributing resources even when inequality is high.

From the notion of space, commodities that are customarily needed in a particular society ought to be required of everyone including those at the bottom wrung of society. Items such as a computer, unthinkable a few decades ago, for example, can be considered a basic necessity today indicating that the overall bar assessing the quality of life needs to be raised with the passage of time marking fundamental changes in lifestyle. This signifies the temporal dimension with expansion of the basic needs when the overall social preference shifts higher. Similar adjustments can occur due to changes in inflation or cost of major types of goods and

\[\text{index, it was argued, would be sensitive to those regressive transfers in the real world in which the poor often witness their income share being transferred to the non-poor.}\]

\[\text{17 This is also consistent with the trend in Nepal for the past two decades (Wagle 2007a, 2007b).}\]
services. Because the overall budget line changes together with increase in prices, the monetary value of the basic needs will increase, despite virtually no change in the actual quantity of needs suggesting that basic needs are relative to the overall movement in the economy. Basic needs also have spatial, cultural, and other faces of relativity as they are conditioned by geographic location, weather, lifestyle choices, and other social values. Issues such as age and gender can be important when it comes to determining the food, clothing, and other aspects of human need.

While the argument goes on over the use of absolute and relative criteria, it may be essential to use a more reconciliatory tone, thereby potentially integrating the two, for a more comprehensive picture of the ability to secure an acceptable quality of life. Because societies are in different stages of development with some offering sophisticated lifestyle choices and others still with the pre-industrial choices, the absolute and relative dichotomy may not apply universally. Once basic levels of physical needs are met in terms of the food calorie intake, for example, societies may be ready to advance toward embracing more comprehensive concept of human needs. In this case, application of the relative criteria would be more appropriate to talk about the issues of the command over resources as well as other non-physical quality of life issues. The approach embraced in the 1995 UN Copenhagen Summit, for example, divided the basic needs into two tiers and called for measuring absolute and overall poverty to make the cases of industrial and developing countries comparable (United Nations 1995). More specifically, while the notion of absolute poverty covers severe deprivation of basic human needs such as food, health, shelter, education, and information, the overall poverty deals with inadequacy of income and other non-physical aspects of life. The UNDP (1999, 2004, 2006) has more recently followed this approach by conceptualizing the notions of overall human poverty (or deprivation) and income poverty.

As the absolute-relative dichotomy presents, economic well-being and basic needs are essentially value-laden constructs with enormous difficulty.

---

18 This is partly reflected in the distinction made by the UNDP (2000a) between extreme poverty and overall poverty. Because food needs tend to be more basic than housing or other needs, applying the absolute criterion of food need for extreme poverty is reasonable. The non-food needs incorporated in the overall poverty, on the other hand, are thought of as relative, partly shaped by their overall consumption in society. National poverty lines are also increasingly developed using these guidelines (Wagle 2007a).

19 The overall human poverty incorporates longevity, knowledge, and income poverty in case of the advanced, OECD countries, where income poverty is defined as the income shortfall compared to the 50 percent of the median.
in reaching the level of objectivity that proponents of the absolute approach envision to achieve. At the same time, it is the poor who experience poverty in their everyday lives and their understanding of what it means to be poor can make a very important contribution to defining and measuring poverty (Chambers 1997; Narayan et al. 2000). The notion of subjective poverty, in which people’s understanding of poverty and basic needs counts, adds to the richness of the alternative approaches to conceptualizing poverty. It is its humane treatment of the poor with their participation and empowerment in determining policy processes and outcomes that is appealing about this approach with definitional and measurement outcomes likely to reflect the genuine value systems of society. At the same time, although subjective poverty standards reflect spatial, cultural, and other differences in needs, they are subject to considerable attacks for they are not comparable over time and across societies and are difficult to apply due to a lack of full reliability of the needed survey data. As Sen (1985a) asserts, subjective poverty standards are essentially controversial as social and psychological issues and individual values and preferences tend to heavily influence the measurement outcomes.

### 2.2.2 Measurement Issues

Measuring economic well-being can be straightforward when one uses income and consumption as its indicators. The conventional practice is to incorporate consumption and income in order to derive easily understood poverty thresholds. The process involves specifying and valuing basic needs and expressing the value as the poverty threshold in terms of income such that those without sufficient income are categorized as the poor. Interestingly, this process applies consistently across all types of poverty lines: absolute, relative, and subjective. Differences exist only in terms of how the level of consumption is determined. Under the absolute approach, for example, the universal idea of the basic human needs guides the process of determining the basic consumption level using the local market values, thus providing the monetary estimates of consumption. Under the relative approach, this process is guided by the overall distribution of income and other resources in society. While one employs the median income and uses its fraction (50 percent in the United States and 60 percent in most European countries, for example) to determine a basic level of consumption as a shorthand, a longer and more accurate process would be to specify the basic needs paying particular attention to time, space, culture, and other relevant factors and determine the monetary
estimate of the needs using local market prices. In case of the subjective approach too, the information collected in the community is used to determine the needs that are considered basic and put monetary values to them using local market prices. Equivalence scale and age adjustments are made to the consumption estimates in each case so that the effect of the economies of scale due to large households and age differentials on consumption would be appropriately incorporated. Adjustments are also made for the differences in needs across profession, activity level, weather, space, and the like.

Complexities arise, however, in both determining the applicable basic needs and in using the accurate value of income available to one’s disposal. First, since the idea of basic needs is highly controversial, agreeing on what needs to be included and how much of each is complicated. The official poverty line developed in the mid 1960s in the United States, for example, tried to settle this controversy by estimating consumption of the basic food items using the ‘economy food plan’ and assuming that one would have to spend twice the food expenditure on housing and other basic necessities (Orshansky 1965). Since its original formulation, there have been some cost of living or consumer price adjustments to the economy food plan on which this absolute poverty threshold is based. Yet, major sources of controversy have been the assumption that families would spend one-third their after-tax incomes on food,

20 Due to rising housing cost, studies have shown that families spend increasingly larger share of their after tax incomes on housing thus attenuating the part of the disposable income left for food and other necessities (Pelletiere et al. 2005). Based on this, there are even recommendations to set the poverty line at three times the housing cost.

21 Increasing childcare, health care, and transportation costs, inter alia, put enormous pressure on today’s family budgets in the United States with no possibility of coping with these costs for families just at or slightly above the official poverty line (Citro and Michael 1995; Joassart-Marcelli 2005).
are based on some absolute criteria on consumption making them more objective. At the same time, however, what sort of diet one needs is relative to the physical work attached to her or his life. Even more importantly, the basket of food items that was used in developing the poverty line is not universal when it comes to maintaining the expected diet and the uncertainty of price together with rampant inflation makes the case for the official poverty line even more complex. In the same vein, the income-based international poverty lines that are widely used by the World Bank (1997, 1999, 2001) and other international agencies are also controversial. While they have provided a uniform basis for international comparison, as a threshold of any size would be relevant, they do not provide any useful information for assessment of poverty and policy response to it in any particular country.  

Second, the money income attached to the designated level of consumption is not often accurately measured. Because economic well-being is a state determining (or determined by) one’s capacity to consume the necessary food and nonfood items, using income to measure economic well-being is far too distant, second to consumption itself. Just because one has income, it can be cogently argued, it is used ‘wisely’ toward maintaining the physical quality of life. Part of it has to do with the tastes and preferences dictating one’s consumption pattern more than the nutritional considerations, unlike policymakers would like to underscore. Moreover, even if we can agree on the fact that income can gauge one’s economic capacity to effect consumption and thus physical quality of life, it is the overall access to economic resources that would be more influential in determining whether or not one is poor. And quite obviously, there is an array of resources including wealth, government transfer, public services, and in-kind supports that also enter the income equation, with income before or after taxes including income from wages or salary and income from farm and non-farm self-employment, which are used in the official poverty line in the United States, being just one source (Citro and Michael 1995; Pradhan and Ravallion 2000; Smeeding 1977; Weinberg 1996). While many experimental poverty measures have attempted to incorporate different sources of income (Citro and Michael 1995; Short 1998, 2001), results have not made sweeping changes.

With the assumption that consumption is a function of one’s overall economic capacity and not necessarily present income, researchers have

---

22 Measurement outcomes using these international poverty lines have not been particularly useful for national governments as their more specific, official poverty lines have produced very different poverty estimates. These estimates also provide dissimilar trends in poverty incidence over time (Wagle 2002, 2007a).
tried to address the need to operationalize this economic capacity in different ways. One of the much-debated approach employs the concept of permanent income measuring one’s permanent command over resources, thus essentially stabilizing the effect of short-term fluctuations in income (Johnson et al. 2005; Watts 1969). Although this approach takes a longer-term view of one’s economic capacity, its usage remains limited to academic exercises (Haveman 1987). Another issue for consideration is wealth, which greatly influences one’s capacity to consume. While studies have found wealth to be highly correlated with income, thus providing very little reason to use wealth for poverty measurement purposes (Haveman 1987), this can be a potentially important resource affecting one’s consumption in developing countries (Wagle 2002, 2006a). This is because any proceed derived from the depletion of wealth is not counted toward income and yet boosts one’s capacity to consume.

This discussion suggests that measuring economic well-being has always been a risky enterprise, with none of the approaches being perfect. At the heart of the controversy has been the use of absolute, relative, and subjective criteria. What measurement approach to use has to do with how poverty is conceptualized and defined. The overall discussion suggests that the concept of basic needs which shapes the idea of economic well-being is partly absolute and partly relative. While most of the elements of basic needs are universal suggesting that they must be accessible to everyone, the quantity and variation of such elements that are needed are conditioned by a number of factors manifesting their temporal, spatial, cultural, physical, and other dimensions. Interestingly, the United Nations (1995) approach to incorporate both absolute and relative dimensions of poverty has achieved meager success in poverty research.23 Yet, this is an enterprise that needs to be strengthened not dropped along the way. Furthermore, since poverty is experienced by real people, incorporation of subjective views regarding one’s own state of economic well-being can provide an important value added to achieve measurement accuracy.

In terms of the indicators useful to measure economic well-being, it is the consumption, income, and perhaps wealth that are highly relevant. Partly, it also depends on data availability, as data on consumption and wealth are difficult to collect but using a more comprehensive list of indicators can positively affect measurement accuracy. Also, because the

---

23 In its Human Development Reports, for example, the UNDP (1999, 2005, 2006) uses both absolute money income (in case of developing countries) and income relative to the 50 percent of the median (in case of industrialized countries) to compute poverty indices. This recognizes the need to use both absolute and relative criteria and the difficulties in doing so.
value of these indicators to measure economic well-being is contingent on family sizes, geographic location, and rural–urban settings, among others, appropriate adjustments ought to be made. At the same time, indicators of fulfillment of such basic needs as safe drinking water and child nutrition (UNDP 2005), while more direct to assess the state of economic well-being, are neither comprehensive enough nor easy to estimate, let alone with needed precision and reliability.

2.3 Capability

Introduced during the 1980s, the capability discourse shifted or more importantly broadened the focus of poverty from narrowly defined economic welfare to more comprehensive, freedom and human well-being. Embracing the idea that human development is a process to expand freedom and choice, capability is used as alternative way of conceptualizing poverty. The capability approach underscores the need to see poverty as a shortfall in the fundamental capabilities of a person, which indicate the degree of freedom needed to achieve valuable ‘functionings.’ Central in this exposition is the capability that indicates how much freedom one enjoys, serving as a more accurate basis for assessing the level of deprivation experienced.

But capability is not only about one’s capacity to achieve something. It is also indicative of the range of functionings that one is likely to have, although what one ends up with partly depends on a variety of other things. As Sen (1993:31) puts it, “The [capability] approach is based on a view of living as a combination of various ‘doings and beings,’ with quality of life to be assessed in terms of the capability to achieve valuable functionings.” Quality of life or well-being can be assessed by looking at one’s capabilities that enable them to achieve the functionings they value.

Sen (1999:87) argues capability deprivation captures the true notion of poverty that people experience in everyday lives. First, capability approach constitutes a more sensible approach to conceptualizing poverty as it focuses on the part of the deprivation or well-being that has intrinsic value rather than on instrumentally significant lowness of income. Second, capability deprivation offers a wide-ranging appeal as it generates from a variety of traits or characters rather than simply from the lowness of income. Third, while income has instrumental impact on capability, the true relationship is less than universal and in fact variable depending on communities, families, and individuals. How much capability one can generate out of given income depends, inter alia, on age, gender, social
roles, location, public health concerns specific to the place or region, and other variations that are beyond the control of the individual. Issues such as intra-family distributions and the contingency of the transformation of income into functioning tend to also affect the way income affects capability.

The capability approach suggests that functionings and capability are two integral aspects of one’s quality of life and well-being (Sen 1992, 1993, 1999). First, functionings are the ends that signify parts of the state of a person, as they are the things that the person is able to do or be, leading the life that he or she currently has. Functionings can be countless, each representing some form of achievement that the person is able to realize. Some functionings are profoundly basic such that we do not even notice them. Maintaining adequate nutrition and having good health, for example, are so fundamental to human life that everyone values them so dearly. At the same time, other more complex functionings including attaining self-respect and participating in social and political milieu happen at varying degrees as people value them variously not only in terms of their importance in life but in terms of the degree of the functioning that is actually needed and the time and effort one needs to put to achieve them.

Second, capabilities are the means to achieve functionings. People have a range of capabilities with some basic capabilities such as the ability to be well-nourished, be well-sheltered, avoid curable morbidity, and avoid premature death that are fundamental to achieve basic functionings. More rigorous sets of capabilities are needed to make more complex functionings happen including such things as political revolution, economic development, or invention of medicine to cure diseases. Only few possess these rigorous sets of capabilities.

While a person can have a comprehensive set of capabilities, just like budget constraints in the study of consumer behavior, he or she can put them to achieve only a combination of functionings that he or she values and has reason to value. Capability indicates ‘the alternative combinations of functionings’ within one’s reach, of which the person can pursue one particular collection (Sen 1993). It is precisely for the reason of value that two people with identical sets of capabilities may pursue two completely different sets of functionings, depending on what they value to be important. Two people with comparable education and expertise as well as comparable socio-demographic background, for example, may end up with different types of jobs, earnings, and other achievements especially if they value different things differently. They may even have different lifestyles and social relationships depending on their interest.

In this sense, capability and functionings constitute interrelated and yet different aspects of well-being. One may even be more important than the
other, perhaps with functionings representing the ends that is much closer to assessing one’s quality of life. Moreover, because value or even rationality which essentially is shaped by how much freedom or capability one has dictates one’s decisions to pursue one sort of functioning over another, assessing quality of life using such highly incompatible functionings is unreasonable. This suggests that capability is more central than functionings to assess the quality of life or deprivation (Gasper 2002). What connects capability and functionings together, however, is the freedom measuring the extent of choice one enjoys in leading the type of life he or she values and has reason to value (Sen 1980, 1992, 1993, 1999). Two equally free (or capable) individuals are assumed to have identical quality of life, according to the capability approach, even if they achieve two different sets of functionings and thus have overall lifestyles that are different. Because capability is closer to the concept of freedom, this approach focuses more on capability as the means that can be used to achieve the ends or the functionings.

The connection between capability and functionings is even more complex, once the role of value is considered. Capability and functionings are generally considered the means and ends respectively as the latter determine one’s quality of life. Capability enhances one’s freedom precisely for this reason, thus increasing the choices that he or she has in making happen the functionings that are deemed valuable. Higher education, for example, increases one’s freedom in terms of pursuing different occupations with which come different economic payoffs. Do all people with higher education value it the most to pursue occupations that offer large economic payoffs? The answer is no, as some people embrace occupations to serve others rather than profiting for their own sake where as others do so because it increases their personal enrichment or serves their individual niche. Sen (1992, 1993, 1999), therefore, argues that while capabilities have instrumental values in enhancing freedom that enable one to achieve the things they value, capabilities also have intrinsic values such that they in themselves serve the purpose of functionings. Invoking the case of education in point again, for example, while education is instrumental to making functionings happen, this has intrinsic values thus being considered as the end in itself. Isn’t, for example, being educated, knowledgeable, and well-informed individual a goal in human life? With education come many benefits but most important part of them is the benefit that individuals realize in terms of self-confidence, self-recognition, self-respect, and above all the feeling of personal achievement that not all people have freedom to achieve.

This is where the capability approach goes beyond the traditional economic well-being approach in determining quality of life. The focus on
economic resources such as income, consumption, or even wealth that are presumed to measure one’s quality of life is essentially flawed because what is measured is the means and not the end in terms of well-being. Admittedly, deriving poverty lines based on the level of income that is needed to secure consumption for a minimally acceptable quality of life is justified. But problematic is the assumption that income is used to achieve the quality of life that is expected without any attention to one’s value and choice. What we are interested in is the well-being or quality of life, which is essentially value-laden with widely perceived difficulties in determining its core elements. There are countless choices in which people can spend income and people with high income do not automatically transform it into well-being. If well-being means maintaining a long, healthy lifestyle, for example, that is not where income always gets spent. What is true, however, is that high income expands one’s freedom and opportunity to acquire the things that one values, thus potentially improving the quality of life. In this sense, while income has instrumental value to achieve functionings, more central than income is the capability to realize such income suggesting that traditional income-based poverty measurement approaches have missed the boat.

Going beyond the usual arguments of capability and functionings, Sen’s (2002) recent work has attempted to broaden the scope of the capability approach by concentrating on the opportunity and process aspects of freedom. Opportunity here indicates the ability to make outcomes happen when one values those particular outcomes and has reason to value them. The process aspect of freedom, on the other hand, indicates that the process used in achieving certain outcomes in itself has a value, independent of the value of the outcomes. While the opportunity and process instrumental in achieving some valued outcomes utilizing such opportunity signify some shift in focus, they invariably focus on the freedom aspect of life that is at the center of one’s quality of life and well-being. Sen’s (2002) renewed arguments that rationality or what one values and sees reasons to value are highly interconnected forming a basis for the level of freedom or choice that he or she enjoys in society.

Rather than focusing on the capability or the input and the functionings or the output (outcome), the new direction to capability approach appears to embrace the systemic view of the opportunities and freedom (Sen 2002). This systemic view would then have three components including the input, output, and process with the last one focusing on how one transforms the input or the capability into the output or the functioning. From another perspective, while Sen’s previous works highlighted the individual dynamics of freedom and opportunity, more contemporary expositions include process or the broader contextual reality in which one must operate
(Gasper 2002). It is apparent that this new direction exposes the influence that the debate over social exclusion may have on more recent thinking of Sen (2000), which he finds highly complementary. At the same time, it may also be a way to broaden the concept of capability primarily concerned at the individual level of analysis by incorporating perhaps the things that the capability approach cannot accommodate or was not originally conceived to accommodate.  

2.3.1 Political Economy Issues

Sen aligns with Rawls (1971) when he places freedom, opportunity, and especially self-respect at the heart of the capability arguments. Like Rawls (1971) who argues all primary goods including basic liberties, freedom of movement and occupation, powers and prerogatives, income and wealth, and self-respect are valued in a ‘well-ordered society,’ Sen (1992, 1993) posits that liberty, freedom, and self-respect form the basis for one’s meaningful quality of life. Sen (1980) is one of the critics of Rawls’ (1971) work questioning in particular whether homogenization of individuals and their needs and emphasis on primary goods that only have instrumental or intrinsic values is appropriate when it comes to redistribution. Sen (1980, 1992) and Nussbaum (2000, 2006), in particular, see the need for expanding the notion of social justice so that the distributive issues would cover aspects of life that are beyond primary goods. At the same time, however, Sen (1980, 1992) borrows the concepts of self-respect, liberty, and freedom to indicate the capabilities or opportunities that individuals have in transforming them into valuable functionings.

Drawing from Rawls (1971), Nussbaum (2000, 2006) explores ways to relate the capability approach to entitlements with specific reference to poor and women who are distinguished from the rest especially in terms of inequality. While Sen’s (1992, 1993, 1999) treatment of capability poverty is absolute in nature arguing that capability sets that one is expected to possess can be assessed in some absolute sense, the notion of capability as entitlements puts this in a relative framework (Nussbaum 2006). As Nussbaum (2006) argues, capability can fully accommodate the locus of

---

24 Sen (2000) argues, for example, that concept of social exclusion, which essentially deals with the freedom that one enjoys in society, serves as one important dimension of capability. It may also be a dimension of capability if viewed as the process aspect of freedom. Proponents of social exclusion argue, however, that what one can do and have is largely a function of the broader social dynamics with individual analyses serving as the different components of social exclusion.
2.3 Capability

human rights including political and civil liberties and economic and social rights that are considered entitlements in the way human rights is used in the international arena. In fact, Nussbaum (2006) even goes on to suggest that constitutions ought to use the term capability to indicate the sets of fundamental entitlements of all citizens based on the principle of justice. This is not to argue that capability ought to replace rights the way constitutions set out some political rights to be fundamental to everyone’s life. At the same time, however, what capability conveys goes beyond the notion of rights in appropriate cases in which people’s choice and autonomy are preserved by not explicitly pushing for a specific set of objectively established functionings (Nussbaum 2006).

To make the argument for freedom more persuasive, Sen (2002) looks at the space of freedom itself and how it plays out supporting the functionings and the capabilities and processes that make functionings happen. For one, he connects the notion of rationality that shapes one’s preference with the freedom. It is not just that rationality promotes freedom as the former is largely shaped by one’s capability sets along with the values embraced. Perhaps even more importantly, Sen argues that freedom, which depends on the given capability sets, directly contributes to the rationality developed. Moreover, while freedom has been a central concern in many classic works such as those of Hobbes (1982) and Locke (1980) as well as more recent works of both conservative and egalitarian thinkers including Friedman (Friedman and Friedman 1980), Nozick (1974, 1980), and Rawls (1971), freedom has seen quite varied conceptualizations. On the one hand are the conservative expositions of freedom underscoring the need to be left alone without any interference so that one can work toward her or his benefit and the overall pursuit of happiness. On the other are the egalitarian expositions arguing that individuals need social protections so that they are free to pursue things that are valuable to them. These two separate forms of freedom, Berlin (1969) identifies, are negative and positive freedoms respectively as the former refers to ‘freedom from …’ and the latter focuses on ‘freedom to do or be …. ’ Applying these forms of freedom, Sen (1985b, 1992, 2002) argues that freedom and especially the positive aspect of it essentially dealing with both opportunities and processes that are central to promoting one’s capabilities ought to be the guiding principle of freedom as capability. Because the capability approach views life positively indicating that freedom is not necessarily linked with specific outcomes that the society expects a person to achieve, positive freedom is indicated not by functionings or outcomes but by the level of capability. In fact, as Jayasuriya (2000) observes, it is this notion of positive freedom advocating institutional pluralism, political capability, and institutional
freedom that makes this approach consistent with the social democratic movement going on in many parts of the globe.

While speaking of capability, Sen distances himself from the notion of utility widely applied in classical economic and political writings. Given that utility focuses on happiness, desire fulfillment, and choice, Sen (1985a) argues, capability cannot be expressed in terms of utility as the latter is personally binding, paying excessive attention to personal interests. People have different tastes and the utility derived from consuming a particular commodity is conditioned upon a number of personal characteristics. Admittedly, capability does depend on personal characteristics and circumstances. Yet utility does not incorporate the wider sets of interests that may be central to deciding whether to value one alternative more than the other. For Nussbaum (2006), moreover, the utilitarian framework is irrelevant to understanding poverty and social justice as it focuses on what people currently prefer and the level of their satisfaction all the while the ‘adaptive preferences’ that the poor exhibit tend to be based on ‘limited rationality.’ Because rationality is dependent on the degree of freedom enjoyed (Sen 2002), relying on preferences based on limited rationality is sufficiently unfair and unrealistic. In the same vein, Clark (2005) notes, while the notion of utility is not always limited to personal interest allowing ‘objective realization of desired states,’ Sen’s (1987) argument has been to focus on freedom and opportunities as they are valuable to assess what kinds of life or well-being one has reason to value which may not always align with utilitarianism.

Dieterlen (2005) makes several observations important to understanding the capability approach with appropriate locus of agency that acts on its own behalf. First, Sen’s concept of freedom or opportunity indicated by capability is related to the well-being of a person, as it determines the quantity and quality of the options that enable one to achieve functionings or well-being. Second, and more importantly, the agency or person-centered focus is essentially at the heart of Sen’s work. Capabilities and functionings are discussed in reference to one’s value and reason and what one is free to pursue, indicating that what one is likely to pursue depends on her or his values or reasoning. Focusing on the individual or the agency, rather than on commodities or resources, has an important implication. As Sen (1995) points out, for example, the assumption that people and particularly the poor are passive beneficiaries of social policies is essentially flawed, as the agency’s interest ought to be always at the center of policy targeting.

Because materials or commodities are not valuable in themselves and therefore are no more than means to achieve other ends, Sen (1987, 1989) recognizes their instrumental value with how much functioning one
derives out of them depending on individual capability. Certain food, for example, has some nutritional value that helps maintain one’s good health and increase productivity. Whether or not one is able to use such food in a way that it helps maintain good health and increases productivity, however, depends on many factors that provide different options or opportunities on the part of the individual commanding the food. Putting the individual at the core of the analysis, Gaster (2002) notes, the agency notion of capability also underscores the importance of empowerment and participation on the part of the individual. While the notion of agency is important in making decisions for its own valued interests and welfare, it can be even more fundamental, as it assumes the individuals to be capable of making informed decisions and to fully exercise their power so that those who are socially disadvantaged can also gain dignity and self-respect (Hicks 2004). Because the agency and well-being are interrelated and because the agency is the autonomous individual, the capability approach enables people to question the existing social structures that may perpetuate injustice, sometimes negatively impacting the individual, and to attain more equal distribution of freedom as a means to achieve well-being (Hicks 2004; Nussbaum 2000; Sen 1985b, 1993).

2.3.2 Measurement Issues

With a compelling political economy appeal, the capability approach has veritably revolutionized the way people think about poverty. But it still lacks appropriate measurement schemes for practical application. Part of it is due to a complexity of identifying the elements of capability and functionings such that they would be useful to assess one’s freedom and quality of life. But part of it has also been due to the deliberate reservation that its chief architect has asserted, arguing that it needs test of time, reasoned debate, and practical evaluation (Sen 1993).

It has been difficult to pinpoint the most important indicators to assess capability. This is even more complicated as the notion of capability deprivation that relies heavily on the implicit concept of ‘freedom’ deals with both capability and functioning without any identified way of disentangling them in practice (Sen 1987, 1992, 1993, 1999). Seemingly, functioning is the end in itself that should be adequate enough to indicate one’s quality of life. But what is the end and what is the means to achieve some other ends is highly controversial. The amount of knowledge one has, for example, is instrumentally valuable to realize some other ends such as healthy lifestyle with nutritious food and to make decisions that lead to a wise use of resources and a better quality of life. It is precisely for
this reason that capability enhances one’s freedom to transform what one has into different forms of functioning, depending on her or his value, reason, and rationality. In addition to its instrumental value to achieve functioning, however, the same amount of knowledge one has also has an intrinsic value serving as the end in itself, thus with its ability to represent at least some part of functioning. Very few would see any reason to disagree that knowledge is an integral part of quality of life with a more knowledgeable person considered to manifest better quality of life in society. Knowing, for example, makes one happy with that happiness contributing to the overall quality of life. This is so not only from the standpoint of ‘utility’ that one derives from increased happiness, the overall society also puts value to the knowledge that one has as others can also benefit from this knowledge, thus valuing the knowledge itself.

Sen (1999:75) argues “While the combination of a person’s functionings reflects her actual achievements, the capability set represents the freedom to achieve: the alternative functioning combinations from which this person can choose.” For further advancement in practical usefulness of the capability approach, Sen (1993, 1999) expects to initiate a meaningful discussion over the question of what are the important achievements, what functionings they should include, and what corresponding capabilities need to be examined. Partly, these should depend on what the overall society values as such elements and indicators thus with the society shaping the entire discussion. For this reason and for that identifying specific elements of capability as well as functionings and opportunity needs a more extensive debate and evaluation from practical standpoint, Sen (1993) explicitly assumes further development in the approach to take this responsibility (Alkire 2002).

At the same time, however, it may challenge Sen’s (1992, 1993, 1999) absolutist approach expecting inclusion of some bare minimum criteria rather than excessively focusing on the relativist approach with comparisons within societies. This is clearly an unresolved quest between the absolutists and relativists both contending that poverty or quality of life should be based on some accepted criteria. The acceptable level of people’s capability to avoid poor quality of life changes with change in the overall performance of societies. As Qizilbash (2003) and Qizilbash and Clark (2005) argue, for example, one’s relative position may be important even when capability deprivation is considered since its measurement has to rely on observable indicators that tend to vary across societies and over time.25 Sen’s (1992, 1993, 1999) argument for some absolute criteria needs
also to incorporate some relative component in order to accurately assess poverty status. While cross-cultural comparisons involving highly disparate segments of society or the world in aggregate makes this controversy more enigmatic, an ideal approach would be to identify the factors to determine some bare minimum quality of life and apply some relative criteria paying attention to inequality once that bare minimum is achieved. Albeit operationally difficult, the issue of relative importance of achievements, functionings, and capability as the core driving force in a given society needs to be resolved appropriately and yet acceptably even prior to any meaningful discussion on the indicators of each element.

Furthering Sen’s absolutist agenda, Nussbaum (2000, 2006) proposes a list of ‘central human capabilities’ applying the notion of bare minimum as a starting point for further discussions on appropriate modifications. While this list including physical quality of life, inner quality of life, political reason, and political and material environment in which we live is essentially a comprehensive list covering all potential concerns of human life, Nussbaum (2000, 2006) concedes that these concerns need to pass cross-cultural and cross-temporal tests so that they are immune to criticisms especially from the standpoint of social justice.

Alkire (2002) advanced another project in an attempt to identify appropriate elements and/or indicators of functionings and capability by conducting a comprehensive review of practical approaches that scholars have devised, with a goal of applying them in impact assessment of Oxfam programs in Pakistan. While the focus was necessarily on the capability approach, the task was essentially to measure human development thus keeping its broader appeal. In addition to Nussbaum’s (2000, 2006) ‘central human capabilities approach,’ she found the ‘practical reasoning approach’ of Finnis (1980), Grisez et al. (1987), and Finnis (1994) indicating educational attainment in its general population over the past few decades indicates that any capability poverty threshold would have to be increased. This change in the poverty threshold, however, would have to be consistent with the level of freedom that a particular level of education, say high school education, brings in terms of the choices in the labor market. Even more crucial would be to change such threshold in developing societies, as their populations have been able to achieve rapid educational advancements.

More specifically, the list includes life expectancy; bodily health; bodily integrity for movement as well as other protections; practice and expansion of senses, imagination, and thought; expression of emotions and love; practical reason securing liberty of conscience and religious observance; affiliation or nondiscriminatory attachments with others; harmony with other species; playfulness; and control over political and material environment with protection of political, property, and professional rights (Nussbaum 2006:58–59).

While this review included an extremely rich set of elements or indicators that were discussed or applied in various settings, it did not lead Alkire (2002) to come up with a specific set of elements or indicators that she could conclusively claim to be appropriate to measure capability. This lack of conclusive claim, Alkire (2002) concedes, had to do with substantive as well as methodological realities, in which the issues of value, context, and data availability played a key role. After all, Sen’s (1993) reservation is substantiated in terms of suggesting specific indicators or criteria so that rather than limiting the scope of the capability approach it could be further enhanced by allowing various forms of operationalization. At the same time, however, Alkire (2002) did select a number of dimensions for her impact assessment study, some of which were ranked highly by the participants of her study. Those with particularly high rankings from individual participants, groups, and assessors included empowerment, knowledge, relationships, religion, life/health/security, and work. And, unsurprisingly, these dimensions were largely consistent with Sen’s (1999) general observation/recommendation that freedom under the capability approach would have to include five fundamental elements including political freedom, economic facilities, social opportunities, transparency guarantees, and protective security.

27 Clearly there are variations in the three expositions of basic reasons for action listed. But the elements listed above were central to all of such variations. See Alkire (2002) for the complete account of the review.

28 This set of dimensions of well-being included material well-being, bodily well-being, social well-being, security, psychological well-being, and freedom of choice and action. See Alkire (2002) and also Narayan et al. (2000) for more through treatments.

29 These include power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, tradition, conformity and security. See Alkire (2002) and also Schwartz (1994) for developments in this direction.

30 QOL domains include material well-being, health, productivity, intimacy/friendship, safety, community, and emotional well-being. See Alkire (2002) and Cummins (1996) for details.

31 Others reviewed included basic human needs (Doyal and Gough 1993), world values (Inglehart 1997), prudential values for development (Qizilbash 1996), and human needs (Ramsay 1992) which tended to be more or less similar.
With Sen’s direct involvement in its activities, the UNDP has perhaps been the most vehement and influential advocate of the capability approach. Its annual Human Development Reports include human development index for every country with data, by aggregating life expectancy, educational attainment, and GDP as the three main indicators.\(^{32}\) While the human development index represents a more general measure of the overall human development than the capability approach suggests, the first two indicators specifically deal with the aspects of capability that Sen (1987, 1992, 1993, 1999) uses as the most basic examples. In addition, the 1996 Human Development Report (UNDP 1996) included a more direct, capability poverty measure for 101 different countries, by aggregating nutrition and health (underweight children), access to health services (unattended births), and educational attainment and gender inequality (female adult literacy). Clearly, the focus of this experimental exercise\(^ {33}\) was on anthropometric measures of physique, aligned with the functioning aspect of the capability approach (Muellbauer 1987). In an attempt to provide more specialized statistics such as capability poverty measure, the UNDP faces serious data problems, as it needs to locate and aggregate data for all of the countries included in its reports. But this exercise has directed focus on functioning indicators rather than capability indicators per se to measure the level of freedom enjoyed by people in different countries.

It is important that the proponents of the capability approach ought to propose a set of indicators that can be applied to measuring and analyzing poverty and deprivation. Creating a widely acceptable list of indicators is a rigorous task that may never be complete due to its controversiality essentially involving value judgments. What we have, therefore, serves as a good starting point. The efforts including those mentioned above at least initiated the dialogue by proposing a list of indicators to begin with. At the same time, however, what Nussbaum (2006) and Alkire (2002) have proposed appear to be all-inclusive lists even closely resembling the lists that are used to assess the overall quality of life, basic needs, and development. Precisely for this reason, Sen (1993) specifically warns against over-identifying indicators, for it may divert the focus of the entire capability approach making it everything and nothing at the same time. This suggests an urgency of reasoned and seasoned debates as well as empirical tests with appropriate data so that this complex concept can be accurately measured without introducing bias.

\(^{32}\) See technical notes, for example, in UNDP (2005) for the latest methodological explanations.

\(^{33}\) This was experimental because, for whatever reason, the UNDP appears to have discontinued this practice for its more recent human development reports.
2.4 Social Inclusion

‘Social exclusion,’ first popularized in Europe and particularly in France in the 1970s and 1980s, has been widely used today in most industrial countries in its exclusive and tacit forms. Where as the economic well-being and capability approaches view poverty from the material and inner quality of life standpoints, the social inclusion approach relates to the relational quality of life. The distinction is such that, while the former two approaches dealt with the personal aspects of welfare, this approach focuses on the relationship of a person with the broader social institutions and frameworks, identifying one’s social and relational resourcefulness needed to achieve human well-being. Like the advocates of the capability approach, proponents of the social inclusion approach assert that people may be poor despite having adequate income or adequate means for survival, if they lack conducive social order that would give them adequate protection when they need it.

While this concept needs to be properly defined with wider agreements, what is true is that the connotation of social inclusion has broadened over time. In the 1970s, for example, when the spectacular economic growth began to slow down in Europe and when a large segment of the population remained unemployed, the concept of social exclusion was applied to refer to the process which compelled many people to be excluded from the market as well as policy resources. This unemployment-based concept of social exclusion broadened by the 1990s in such a way that the excluded were now referred to as the “whole groups of people...partly or completely outside the effective scope of human rights” (Strobel 1996).

Social exclusion is “the process through which individuals or groups are wholly or partially excluded from full participation in society in which they live” (European Foundation (1995:4), in de Haan and Maxwell 1998). By extending the notion of relative deprivation covering both economic (material) deprivations including food, clothing, and housing and social deprivations including family attachment, recreation, and education (Townsend 1979, 1993), proponents of social inclusion have essentially elevated the level of analysis with important implications for measuring the standard of living. The working definition proposed by Burchardt et al. (2002) is consistent with this notion of the relational quality of life: “An individual is socially excluded if he or she does not participate in key activities of the society in which he or she lives.” Additionally, while participation can be specified in different ways, Burchardt et al. (2002) view consumption, production, political engagement, and social integration to be central in the United Kingdom and elsewhere.
These and other definitions indicate what may be important for the analysis of social exclusion. Some theoretical treatments attach it with employment, consumption, and social security (Atkinson 1998), others with civic integration, labor market, welfare, and family and community (Evans 1998), and yet others with goods and services, labor market, land, security, and human rights (Rodgers 1995). Some tend to be more comprehensive by including the denial of “access to services that will enable them to engage fully in the economy and the society” (Taylor 1999), while others tend to be more pragmatic focusing on low income, insecure jobs, poor housing, family stress, and social alienation (Paugam 1995). Nevertheless, a comprehensive review of different definitions of the term uncovers some important issues (de Haan 1998; Silver and Miller 2003). First, social exclusion is taken as the antonym for social integration, entailing that it is important to be socially integrated or included, just like everyone in society. Second, the concept of social exclusion is multidimensional spanning from economic and social to political domains. Third, while it refers to a state or situation, it results from the process of systematic exclusion or relational distance of the excluded involving isolation, rejection, humiliation, lack of social support, and denial of participation. This suggests that the concept of exclusion refers to a systematic exclusion of individuals, families, and groups in economic, political, and social activities that can indicate the social fabric of the overall quality of life (Beall 2000; de Haan 1998; Evans 1998; Gore and Figueiredo 1997; IILS 1996; Rodgers 1995).

For many, social exclusion has generally meant a lack of participation in, e.g., economic, social, and political activities, and, from this standpoint, social inclusion or participation is an end in itself with constitutive value. In reality, however, social inclusion or participation is also a means to achieve something. As Gaventa (1998) argues, for example, “Participation is seen as a vehicle to enable the excluded to act more effectively to address the problems which they face.”34 This sets a good prelude to the discussion of the relationship between social exclusion and poverty.

IILS (1996) conducted regional studies and seminars to examine various dimensions of poverty and social exclusion. The findings were far from being definitive in determining which concept is nested in which. But they indicated that social exclusion and poverty could be presented in a

34 Elaborating on this, Gaventa (1998) states, “the unemployed may be organized to participate in strategies for overcoming unemployment or for job creation, youth organizations may be encouraged to participate on issues affecting youth, immigrants or minorities may develop participatory strategies for addressing racism or cultural exclusion, etc.”
continuum and that higher emphasis on one would make the other only one element of it. More specifically, IILS (1996) found that in Peru social exclusion was viewed as a cause of poverty because exclusion from economic, social, and political activities constricted one’s capacity to access resources, while in India poverty appeared to be a cause of social exclusion, as poverty made people unable to acquire goods and services to become socially included. In Yemen, in contrast, poverty and social exclusion seemed to be indistinguishable that one inevitably affected the other. What is clear is that the concepts of social exclusion and poverty juxtapose each other and when one is taken as a means, the other is found to have been caused by the first and vice versa. Apparently, this eventually led the IILS researchers, although only implicitly rather than definitively, to conclude that social exclusion and poverty reinforce each other and that one is inextricably important to predict the other (de Haan and Nayak 1995; Figueroa et al. 1996; IILS 1996; Gore and Figueiredo 1997; Gore et al. 1995; Singer 1997).

While poverty researchers recognize the persistent regard for social exclusion, it may not be labeled as such. The concepts of ‘culture of poverty’ and ‘urban underclass,’ which are widely used in everyday lexicon in the United States, represent the American variant of social exclusion. Instead of understanding the poor as those being denied access to meaningful economic, political, and civic and cultural systems and activities, however, many referring to these concepts point to the poor as demonstrating socially and economically deviant behavior. The notion of culture of poverty (Harrington 1962; Lewis 1966, 1969, 1998; Miller 1958, 1965), for example, provided the detailed account of the poor as a result of an ethnographic project focusing on their everyday activities, behavior, and overall mindset. Others, however, rejected the socially deviant explanations of culture of poverty arguing that this resulted as a coping strategy to get around the economic plights of the poor (Stack 1974; Valentine 1968). A more recent version of the notion of culture of poverty is embedded in the underclass debate suggesting that the poor and especially the black urban poor manifest behavioral and cultural deficiencies (Mead 1986, 1992, 1996; Murray 1984, 1999). While the debate still continues in the United States over the existence of the underclass, some have used it simply to refer to a heterogeneous group of people demonstrating similar social conditions and not participating in the mainstream occupational system in the United States (Jencks 1992; Stack 1974; Wilson 1987, 1996, 2006). Given such similarities, however, this American version of social exclusion is defined under a much narrower framework suggesting that the lack of economic capability has resulted from a number of reasons. Depending on the version taken, people
understand it to be due to either the choice of the poor to deviate from the mainstream social and cultural milieus or to the structural as well as the social transformations of the American economy and society thus making it harder for the low-skilled, urban residents to find jobs and secure decent quality of life.

2.4.1 Political Economy Issues

While social exclusion evolved as a framework applied to understand the precariousness of the disadvantaged and marginalized who did not fully participate in the mainstream economic, political, and social activities, separate accounts of this non-participation have been proposed. Just like the way urban underclass or culture of poverty is understood differently depending on one’s ideological orientation, individual choices dictate the state of participation for some where as for others it is the society that erects structural barriers to meaningful participation. As Singer (1997) points out, for example, the individualist framework of social exclusion focuses on freedom, utility maximization, and rewards provided by the market suggesting that whether one is in or out of the mainstream society signifies the level of one’s individual efforts and not those of society. For individualists, individual initiatives such as education, training, employment, and active participation in social activities can overcome one’s exclusion. The structural framework, in contrast, assumes that social exclusion is an inevitable product of the market, as society would always have those who cannot participate in the market (Singer 1997). There are two versions of the structural framework. Marxists suggest the market mechanism treats different classes differently thus excluding those without the ownership and especially those not directly included in the market. Keynesians, on the other hand, suggest exclusion results from the market as it does not achieve ‘full employment,’ thus making some vulnerable in order to keep wages low and achieve equilibrium in the aggregate demand and supply. Irrespective of the mechanics used, however, both structuralists view social exclusion as unavoidable in the market without expanded roles of the state keeping the excluded afloat and integrating them into the mainstream.

Where as Singer’s (1997) account of the individual and structural frameworks essentially focuses on the economic mechanisms, Levitas (2005) provides a more elaborate typology of social exclusion resulting in the economy. Central in this regard are three different labels of economic exclusion. Using the traditional notion of income poverty, Levitas (2005) construes the ‘redistributionist’ discourse suggesting that social exclusion
results from the lack of income, disallowing participation in economic activities. The ‘social integrationist’ discourse, on the other hand, takes it primarily as a function of the absence of labor market attachment, where there is a value of work and work ethics. These two discourses underscore the role of the society to accommodate the income and labor market needs of the excluded. But the moral underclass discourse, just like the individualist framework or urban underclass thesis, places the burden on the moral and behavioral delinquency of the excluded.

Silver (1994, 1995) further broadens the trajectory of social exclusion paying specific attention to how those with different political and philosophical orientations would understand it. Specifically, Silver (1994, 1995) conceives three paradigms emanating from the concept of social exclusion—solidarity, specialization, and monopoly—appealing to different political expositions during its evolution in Europe. Drawing on the politically conservative or republican philosophies of Rousseau and Durkheim, the solidarity paradigm of social exclusion was conceived as a withering away of social bonds between individuals and society. For Silver (1994, 1995), varieties of cultural and moral rules and institutions exist in society to integrate individuals and exclusion refers to their failures to do so. The socially excluded, from this perspective, are the poor, the unemployed, and the ethnic minorities who are thought of as not being able to or not acting consistent with the mainstream individuals that are well-off, employed, and in the ethnic majority. At the national level, solidarity is about the political rights and duties that bring people together for a common national interest.

With the assumption that societies are the aggregates of individuals with varied interests and capabilities and that the division of labor and exchange are embedded in social structures, the specialization paradigm suggests that social exclusion emanates from individual behaviors and exchanges (Silver 1994, 1995). Rooted in the liberal tradition, the specialization paradigm sees social exclusion resulting from discrimination or from a severing of the contractual exchange of rights and obligations.

Embarking on the Weberian view of hierarchical society with social groups competing to control or monopolize the use of resources, the monopoly paradigm sees social exclusion to occur when different groups attempt to maximize benefits for the included and heighten the barriers for outsiders to access such benefits. Here different social groups are conceived to be competing for control over resources and, unlike under the solidarity paradigm, memberships into these groups are considered to be unequal. This social democratic paradigm can be used to explain, for example, why one can be excluded for being an immigrant, but included for being an educated and following certain religion. This paradigm
focuses on institutions because they enable or constrain individuals for certain advantages and disadvantages.

These are three competing explanations of social exclusion as a social and political construct. But given the contextual reality of France in the 1980s with consensual governments in which this concept evolved, these explanations do not appear to be mutually exclusive. As Silver (1994, 1995) points out, for example, different political parties at the time conceived the issue differently and yet found a common ground to support the policy that would seek to promote social integration or inclusion. Furthermore, contextualizing in the political landscape of the United Kingdom, Davies (2005) asserts that what is operational today is a ‘contractarian’ approach to social inclusion attempting to provide conditional access to outsiders, deviating from the rights-based social-integration approach as was originally conceived.

At a broader level, the notion of social exclusion invokes issues beyond economic structures and beyond some implicit assumptions that underlay common grounds for agreement over policy responses. In its strictest sense, whether or not one is included depends not just on what the person is capable of doing, which is primarily what the capability approach deals with. It is, instead, a function of what the state ensures of its citizens. The notion of citizenship that Marshall (1964) argued is attached to the status as citizen involving access to various rights and powers which were limited to a small elite in premodern societies. Marshall (1964) extended the notion of political rights (Dahl 1998; Mill 1859) including right to vote, free speech, and equality before the law in order to construe the notion of citizenship for the twentieth century. In addition to the civil or individual rights and political rights, Marshall (1964) argued, one’s status as citizen ought to provide her or him with basic social rights including welfare, security, and education. This notion of citizenship seeks an extensive role of the state under more egalitarian assumptions. But it also realizes the tension between social class and citizenship inherent in modern democracies reminding that the hereditary class structure and equal suffrage are largely incompatible. It was quite consistent with a comprehensive set of rights that the Universal Declaration of Human Rights recognized as fundamental to a dignified human life. But especially controversial has been the notion of social rights including right to adequate standard of living, to education, and to participation in the cultural life set forth in the Articles 25, 26, and 27 of the Declaration (United Nations 1948).

Although the notion of citizenship or social rights is seemingly related with equalizing incomes or resources more broadly, Marshall (1963) interprets this to be the contrary ascribing to that civil, political, and social
rights would equalize citizenship status without any class division more than the income or resource itself. It is paradoxical but the result of this ‘equitarian’ approach is to abolish poverty and not necessarily abolish inequality. Clearly, Marshall’s (1963, 1964, 1981) argument downplaying the roles of income or inequality is in affinity with capability arguments but his citizenship rights-based exposition of society places processes at the core of poverty. It suggests that it is the state’s role to secure fundamental rights for every citizen, thus ensuring universal citizenship and integration and veritably leveling the playing field.

The issue of rights has contextual twists too. While rights are universal, they are not practiced uniformly across industrial and developing countries. As Balla and Lapeyre (2004) observe, for example, the problem of rights concerns lack of adequate political representation in industrial countries with various contributing factors. A widespread political apathy on the part of the citizens with constantly deteriorating faith in governments and political leaders widens the gulf between the public and political leaders (Bartels 2006; Jacobs and Skocpol 2006; Scholzman 2006; Verba et al. 1993; Verba et al. 1997). In developing countries, on the other hand, the problem takes the form of the lack of political rights including right to elect people’s representatives to run key government offices and freedom of speech that would enable one to express views and enable the media to be the true friend of democratic governance (Balla and Lapeyre 2004). These are common in many authoritarian societies and even in ‘democratic societies’ especially when they lack informed citizenry, democratic culture, and appropriate institutions to safeguard the democratic exercise. No matter the source of such anomaly, however, it is important to remember that this rights-based social exclusion results when the state is incapable or mute to effect meaningful integration of especially the disadvantaged and minority sections of the population.

Social exclusion and capability approaches overlap in terms of placing opportunity at the core of the analysis. Whether it is to enhance individual freedom or to ensure rights as entitlements, the goal is to equalize opportunity (Barry 2002; Sen 1992, 1999), which is an integral component of primary social goods including rights, liberties, and income and wealth. Toward the goal of equality of primary goods, the relative position of individuals provides important information on what distributional mechanism is required. Social integration, therefore, serves as a prerequisite for the type of life one wants to lead, given the value that he or she spouses. While individuals have the right to pursue the type of life they value, it also has social implications. Together with rights comes the duty or the obligation on the part of society or other individuals to fulfill those rights (Finberg 1979) necessitating that every individual has certain social
obligations or responsibilities to fulfill. Those unable to access sufficient basic needs or to meaningfully participate in the mainstream society as equals cannot meaningfully fulfill their social responsibilities (Townsend 1979). Social responsibilities also represent the social fabric of life with direct connection with the overall quality of life. This is also consistent with the indivisibility and interdependence of one’s rights such that whether or not one can meaningfully enjoy one particular ‘right’ may be contingent on the enjoyment of other rights (Barry 2002; OHCHR 2002). The relative notion is also relevant here in terms of one’s relative position on other aspects of quality of life, which is even more crucial between different forms of rights leading to social inclusion.

Discussion of rights also relates to the ‘voice’ and ‘power’ that one has in making decisions. The marginalized, disadvantaged, and excluded sections of society are such because they lack the power to influence decisions that affect their lives. One expects modern democratic exercises to include citizens in governance and policy decisions (Lijphart 1997), which if appropriately operationalized would mark an important progress in securing human rights (OHCHR 2002). Studies show, however, that in both industrial and developing societies there are limited or broken conduits for the poor or the excluded segments of society to influence policy decisions which in turn lead to more exclusion not less (Narayan et al. 2000).

One’s inclusion, Sen (2000) argues, has either constitutive or instrumental relevance. First, participation in certain activities in the economy, polity, or society is intrinsically important thus constituting a right in itself. Consistent with Marshall’s (1964) notion of citizenship, the argument here is that as a human being one has a right to have a say in her or his own governance, influence policy decisions that affect the masses, and practice religion or other cultural traditions that are important. One’s quality of life, for example, partly depends on the degree of affiliation with others in the community as it offers social belongingness, networking, and attachment. In this sense, civic and cultural inclusion breeds political and other forms of inclusion as political and other types of relationships essentially grow out of social networks (Barry 2002; Putnam 1993, 2000). Second, inclusion in certain activities is instrumentally important as it produces other consequences that have constitutive, intrinsic values (Barry 2002; Sen 2000). What kind of work one does or how much accessibility one has to the credit market, for example, may not matter much to the quality of life directly but it does indirectly as having certain types of employment or not having access to the credit market can lead to negative consequences, disallowing participation in other types of activities including appearing in public without shame (Smith 1776). Exclusions that have either consti-
tutive or instrumental values to the quality of life can be numerous but any
demarcation between the two is difficult. Exclusions such as from the
electoral and associational participation with constitutive relevance also
have instrumental values as they lead to exclusions in terms of exercising
political and civil rights. This complexity also applies to inclusions that
have instrumental values at a general level and yet manifest subtle intrinsic
relevance.

The above discussion mostly focuses on the rights based justification of
social exclusion in which the unit of analysis is the individual. This is
partly true given the ramifications that exclusion confers as the process of
exclusion enormously affects the person being excluded. For this reason,
the effect of exclusion on the overall quality of life depends on the type as
well as the degree of exclusion experienced, with assessment of its stock
involving some subjective criteria of the person in question or some
objective criteria established by outsiders. It is profoundly important to
distinguish between the approach taken to understand social exclusion and
the actual process that takes place to make it happen. There is ample
support in the literature suggesting that social exclusion is a process, as it
is a state or outcome, involving relational aspect of how a particular
society functions (Mayes et al. 2001; Sen 2000; Silver 1994, 1995; Silver
and Miller 2003; Witcher 2003).

2.4.2 Measurement Issues

The concept of social exclusion provides a more comprehensive picture of
deprivation (de Haan 1998). At the same time, however, it also leaves the
impression that the contemporary concept of social exclusion tends to
lump together every issue related with deprivation in terms of structural or
larger social arrangement problems (Sen 2000). In this respect, its role, just
like that of inequality, is indispensable in determining poverty. But it
makes quantitative analysis of poverty more challenging because the
problem now is one of finding appropriate indicators and measuring the
degrees of social exclusion. Because of the lack of definitional specificity
as well as the qualitative nature of the problem, a ‘scientifically’ valid set
of indicators essentially sensitive to time, context, salient dimensions,
processes, and domains of social relations is yet to be developed (Silver
and Miller 2003; Vleminckx and Berghman 2001).

Silver and Miller’s (2003) review provides a wide range of indicators
that especially European researchers or agencies use to measure social
inclusion. This range includes those that capture the material deprivation—
risk of financial poverty at 60 percent of the national median income,
income inequality as income ratio of top to bottom quintile, and persistence of poverty—to low education, health, and housing conditions. Also used are such less tangible aspects as the lack of participation in civic life, inability to participate in family and community activities, residing in areas manifesting social crisis, and social capital. Room (1995, 1999) identifies a lack of adequate social participation, lack of social integration, and lack of power as important aspects of social exclusion. The indicators of inclusion, in this sense, would include participation in key activities of society, communication skills for social, political, and economic participation, attachment with the social networks, and the degree of influence in policymaking (Lister 2004).

Although social inclusion can be operationalized using an extensive list of indicators, Sen (2000) cautions to refrain from over-identifying them. Given that exclusion can occur actively or passively, Sen’s (2000) suggestion is to focus on factors such as access to credit that indicate active exclusion rather than wandering aimlessly using such factors as unemployment that indicate only passive form of exclusion. Because unemployment can cause a number of possible outcomes including loss of output, loss of skill, loss of freedom, psychological loss, ill-health and mortality, loss of human relations, loss of motivation, and weakening social values, Sen (2000) argues, focusing on factors that have instrumental values to realizing some other exclusionary outcomes does not serve the purpose well.

While identifying a perfect set of indicators is difficult, poverty has been studied using the social inclusion approach at varying degrees. The UNDP, which has been one of the strongest advocates of this approach, has also struggled in incorporating this concept in its ongoing project to measure progress toward human development. It has devised a methodology to compute the ‘human deprivation index’ for different countries but the paucity of specific set of indicators as well as internationally comparable

---

35 Toye and Infanti (2004), for example, treat social exclusion a concept that embeds poverty and suggest that attempt to measure social exclusion ought to include a comprehensive list of indicators covering such a variety of aspects as cultural, economic, functional, participatory, physical, political, relational, and structural factors.

36 Whether the instrumentally important factors such as unemployment can be used as the indicators of social exclusion is arguable, however, since they have broader implications for one’s relationship with society. Yet, just like the distinction between capability and functioning, it is important to focus on instrumental factors that have some constitutive values. It is for this reason that the UNDP (1997, 1999) uses unemployment as the indicator of social exclusion.
data has left it to resort to using long-term unemployment as the only indicator of social exclusion (UNDP 1997, 2000a, b).

Consistent with the direction of the general theoretical discussions, more specific micro or macro level studies have operationalized social exclusion in more comprehensive frameworks. A survey report prepared by the Joseph Rowntree Foundation of the UK, for example, operationalizes it using material impoverishment (traditional concept of poverty), labor market exclusion, service exclusion, and exclusion from social relations (Gordon et al. 2000).

More divergent sets of indicators have been used in individual studies with limited scopes. In an attempt to explain homelessness in the United States, for example, Belcher (1992) operationalized social exclusion in terms of exclusion in the labor market, neighborhood formation, schooling, and political participation. Crawford (2003) measured social exclusion specifically of the disabled individuals in Canada using access and barriers to employment, job accommodation, and wages. Singer (1997) investigated social exclusion in Brazil focusing on the degree of exclusion in terms of structural factors such as changing face of employment and the growing informal sector as well as expanding educational inequality. Addabbo and Baldini (2000) used the social exclusion approach to analyze availability of social assistance among Italians with employment status being an integral part. Opel’s (2000) work in Bangladesh focused on the exclusion from social networks or relationships and access to the labor market. Burchardt et al. (2002) attempted to gauge the degree of social exclusion in the UK using households’ consumption capacity to purchase goods and services, participation in producing economically or socially valuable activities, political engagement in local or national decision-making, and social integration with family, friends, and community. The UK’s Social Exclusion Unit (2001) analyzed social exclusion in terms of “unemployment, poor skills, low income, poor housing, high crime, bad health, and family breakdown.” Charting a comparative analysis of the French and British policy initiatives on insertion of people into the mainstream society, Silver and Wilkinson (1995) focused on issues around

---

37 Specific indicators used to measure labor market exclusion included labor market participation and number of workers in households where as those of exclusion from basic services included utility disconnections, unaffordability or unavailability these services, and use of public versus private services. Similarly, the indicators of social relations included nonparticipation in common social activities, contact with family and friends, support from others in the community, participation in civic activities and organizations, and lack of movement in the community.
employment, training, and associational and community activities. Sirovatka and Mares (2006) examined poverty in Czech Republic by operationalizing economic exclusion as the inability to maintain the standard of living customary in society. Indicators of exclusion, in this case, included difficulty in meeting basic needs such as food, clothing, and vacation, housing conditions, and contacts with friends or relatives. Chakravarty and D’Ambrosio (2006) conducted a similar analysis using the indicators of financial difficulty, basic necessity, housing condition, durables, health, social contact, and dissatisfaction and found that the degree of exclusion was quite varied in different parts of Italy and in the European Union.

No doubt, social inclusion has been used quite extensively either as the major research interest or as an approach to investigate some other interests and especially poverty. At the same time, however, there exists no uniformity in its application. Some look at it as a cause, others as an outcome, and yet others as on intervening or procedural factor that helps explain some other outcomes of interest. Even for those conceiving social inclusion as an outcome, on the other hand, it did not provide the same meaning as they operationalized using different indictors. But this review largely suggests that of interest would be the factors that can be grouped into the economic inclusion, political inclusion, and civic/cultural inclusion categories. Those under economic inclusion, for example, would be the type and degree of labor market participation and access to financial resources where as those under political inclusion would be political rights, political participation, political organizing, and the relationship with political leaders. Indicators of civic/cultural inclusion, moreover, would include basic social rights, participation in civic cultural activities, membership to civic cultural organizations, and access to social ties and networks. Rather than serving as specific indicators, however, these are only indicative, thus providing useful guidance for identification of the indicators that are potentially relevant for measuring different aspects of social inclusion. If there is anything that is definitive, it is the suggestion that social inclusion needs to be operationalized as a multi-dimensional construct focusing on a host of factors concentrating on the procedural and outcome aspects of one’s relationship with society. But at the same time, Sen’s (2000) advice is relevant that over-identification of indicators can miss the boat, thus leading to measurement of some concept other than social inclusion. This invokes a concerted effort to operationalizing social inclusion using a comprehensive but appropriate set of indicators.
Chapter 3
Multidimensional Approach to Poverty

3.1 Overview

The previous chapter discussed the three streams of development in the conceptualization and measurement of poverty. Albeit occurring somewhat independently, these developments attempt to find ways to better conceptualize and predict some form of the quality of life or deprivation. The development in economic well-being and capability research, for example, explicitly places poverty at the core of the analysis. In fact, the notion of capability uses a new lens to conceptualize poverty. Albeit defined more broadly, the notion of social inclusion focuses on the social or relational part of the quality of life. It does not specifically equate poverty, defined in the conventional, economic sense. When poverty is defined more comprehensively focusing on the overall quality of life or human well-being as an outcome, however, social inclusion can provide enormously rich information to assess it.

Yet, the goal is not to gauge the quality of life itself as not everyone values it equally. Quality of life has an ideal connotation of the physical and mental state or well-being, which varies across individuals above and beyond their resource differentials can explain. Because values (as well as some random phenomena) play central roles in having a specific state of physical and mental well-being, using this end result to measure poverty is not justified. We have to look at the availability of different resources instrumental at achieving the desired physical and mental quality of life or well-being. The goal, instead, is to realistically assess the degree of resourcefulness indicating one’s ability to realize the quality of life as deemed appropriate. What matters therefore is not what physical or mental state one is in but what is one’s level of economic, capabilistic, and relational resourcefulness. Two individuals, for example, can have the identical degrees of resourcefulness and yet have different states of physical and mental life. Only with the use of a comprehensive set of information that the poverty measurement outcomes will be accurate, suggesting that focusing on one specific aspect of poverty will not be sufficient.
This chapter lays out the groundwork for the development of a multidimensional approach incorporating economic well-being, capability, and social inclusion as different dimensions of poverty. It discusses the relevant conceptual issues and identifies an appropriate set of indicators to measure each poverty dimension. With the goal of providing appropriate information for policymaking, it introduces a measurement scheme to be used with the estimates of poverty dimensions as indicated by the empirical data and discusses how the measurement outcomes with different categories of poverty can help target policies better. The chapter then develops an operational framework for the multidimensional poverty measurement.

3.2 Conceptual Issues

The argument that poverty is multidimensional is not new. It is a well-recognized fact. Studies after studies have suggested that poverty is not simply an economic problem but rather a complex social problem with various manifestations (Brady 2003; Lister 2004; Ravallion 1996; Sen 2000; Sengupta 2005, Wagle 2002). Alternative approaches have emerged as a result of the realization that poverty measurement outcomes cannot be accurate by looking simply at people’s income or consumptive capacities. As Ravallion (1996) argued, for example, efforts to accurately capture poverty ought to include both economic (money-metric) and non-economic indicators. Consequently, multidimensional approaches are seen not only as a potentially relevant conceptual and methodological progress but essentially a mantra reshaping further developments in poverty measurement. Summer’s (2004) review, for example, elevates a need to move beyond economic measures of poverty if the purpose is to understand the dynamics of poverty at a greater depth.

Of the works concerning multidimensional approach, however, some have been purely theoretical while others attempt to apply theoretical developments using some real data. Chakravarty (1983) and Tsui (1999, 2002), for example, have been pioneers on the theoretical treatments. Deutsch and Silber (2005) provide a comparative analysis of the application of different multidimensional approaches using housing condition and ownership of durable goods. Data from the 1995 Israeli Census supported that the characteristics of poverty based on multidimensional approaches did not differ much from those based on the conventional approaches using income or expenditure data. Bourguignon and Chakravarty (2003) give some application to their primarily axiomatic
work on multidimensional approach using income and education as the dimensions of poverty in Brazil. Findings suggested that income and educational levels were highly substitutable indicators of poverty. Dewilde (2004) operationalizes housing, financial stress, and limited financial means as the three dimensions of poverty in a latent class framework and estimates the headcount ratio of the poor in Belgium and UK. This cross-country analysis shows that while poverty figures tend to slightly attenuate using the multidimensional approach, compared to those from the traditional approaches, these outcomes are ‘both plausible and substantively interpretable.’ Moisio (2004) uses a similar latent class approach to investigate multidimensional poverty in Finland, the Netherlands, and the UK applying relative income poverty, subjective poverty, and housing deprivation measures. Although the assumed unidimensionality of the indicators may not be highly consistent with the multidimensional approach, results using some theoretically justified indicators were highly encouraging thus providing richer understanding of the quality of deprivation. Earlier works by Adelman and Morris (1967, 1973) and Morris (1979) also sought to quantify poverty and well-being under such guises as economic development and physical quality of life index using infant mortality, life expectancy, adult literacy, and other macro indicators.

Apart from these micro level and mostly academic research, the multidimensional approach to poverty has also received attention from more influential players in the international political economy. Over a decade ago, for example, the Program of Action that came out of the 1995 UN Summit on Social Development declared the multidimensional character of poverty and underscored the need for comprehensive policy measures to eradicate it (United Nations 1995). Distinguishing between absolute poverty and overall poverty, it envisioned improving the overall quality of life for the one billion poor worldwide living in unacceptable conditions. For the United Nations (1995), the notion of absolute poverty captured the severe deprivation that people experienced due to inability to fulfill the basic human needs including food, safe drinking water, sanitation facilities, health, shelter, education, and information. It covered both physical as well as other aspects of quality of life that can be improved with income and with the access to social services. More comprehensive was the concept of overall poverty which expanded the notion of basic human needs by incorporating income and other productive resources that enable people to maintain sustainable livelihoods as well as the participation in important decision-making activities and in other social, cultural, and civil life.

The UNDP has also attempted to operationalize this important UN declaration. The development of human poverty index (HPI) by the UNDP
(1997, 2000a, 2005) for its annual reports perhaps constitutes the most influential use of the multidimensional approach worldwide. The UNDP (1997, 2005) estimates human poverty index for each country with data as an unweighted average of longevity, knowledge, decent standard of living, and social exclusion (this last one only in case of OECD countries). While there are serious data problems, especially given the comparative nature of this work, this constitutes an important milestone for the development and use of the multidimensional approach to poverty.

Yet, none of these approaches sufficiently captures the truly multidimensional character of poverty. Aggregate level analyses such as those of the UNDP assess poverty or resourcefulness at the macro level and thus are not very useful at the micro level. Even those focused on the micro level include multiple indicators of poverty or deprivation without incorporating separate poverty dimensions as they have been proposed theoretically. Also, none incorporates a mechanism to empirically test for the multidimensionality of poverty.

### 3.2.1 Multidimensional Approach

The concern under multidimensional approach to poverty is not one of ‘whether’ to use this approach, as some attempting to provide political or philosophical rationale argue (Lister 2004; Ravallion 1996; Sen 2000; Sengupta 2005, Wagle 2002). It is instead one of ‘how’ to operationalize it so that the measurement outcomes will be more accurate and useful. It raises both substantive and methodological issues. What constitutes multiple

---

1 The UNDP (1997, 2006) computes the HPI by using the percentage of people not expected to survive to age 40 as the proxy for longevity, the percentage of adults who are illiterate as the proxy for knowledge, and the percentage of people without access to safe water, percentage of people without access to health services, and percentage of moderately and severely under weight children under five as the proxies for a decent standard of living. While the UNDP continues to use this approach to compute the HPI for developing countries (without the percentage of people without access to health services), it uses a slightly different approach for the OECD countries. For these countries, the HPI is computed as the unweighted average of four separate measures including the probability at birth of not surviving to age 60, the percentage of adults lacking functional literacy skills, the percentage of people living below the poverty line (defined as the 50 percent of median adjusted household disposable income), and long term (over 12 months) unemployment rate (UNDP 2005).

2 Indicators such as life expectancy, underweight children, and long term unemployment, which are used by the UNDP, for example, cannot be used to meaningfully assess poverty at the individual (or household) level.
dimensions of poverty is where the social science research can have a highly contentious debate depending on the disciplinary foci and ideological orientations. From the pragmatic standpoint, however, factors that are instrumental at producing quality of life constitute highly relevant indicators. Given the expanded purview of the multidimensional approach, the notions of physical quality of life (Cummins 1996; Morris 1979), basic human needs (Doyal and Gough 1993), human well-being (Gasper 2007; McGillivray 2007), and human development (UNDP 1997, 2000a, 2005), among others, can provide important frameworks to shape this discussion. At the same time, it is widely perceived that concerns of poverty essentially invoke economic welfare as well as the degree of freedom and social processes as their intricate interplays determine one’s poverty status (Ravallion 1996; Sengupta 2005; Sen 2000; UNDP 1997, 2000a, 2005; Wagle 2002, 2005). While these dimensions are highly pertinent with abilities to capture different aspects of poverty, these dimensions need to be measured using appropriate indicators. Identifying a list of indicators that can adequately measure the poverty dimensions is conceptually and methodologically challenging.

Methodologically, the multidimensional approach deviates from the conventional unidimensional practices. The conventional practice, for example, is to use the actual, monetary value of individual (or household) income, compare it against the pre-established poverty threshold primarily in consumption terms, and categorize as the poor the individual (or household) whose income falls short of the poverty threshold. The ‘poverty head count ratio’ is computed by identifying the proportion of the population that is poor and the ‘poverty gap’ is identified for each individual by observing the difference between the actual income and the poverty threshold. The incorporation of multiple dimensions and/or indicators automatically poses a serious challenge in terms of identifying the aggregate poverty status. Of fundamental importance are the issues of aggregating different dimensions of poverty to derive the overall poverty status. Questions also arise, for example, whether various dimensions should be aggregated creating the final single poverty dimension (Moisio 2004; UNDP 1997, 2005) or the poverty status should be identified separately for each dimension (Deutsch and Silber 2005; Dewilde 2004) and post-aggregated to derive the final poverty status. The issue of weighting becomes critical in either case since all dimensions of poverty are not equally important. Other issues deserving special attention include establishing a poverty threshold for each dimension since categorization of individuals as poor or non-poor eventually involves some pre-established thresholds and incorporating some absolute, relative, or subjective criteria. This last issue has its own significance because poverty thresholds ought to
operationalize some absolute core and yet adapt to changing inequality landscapes including the perceptional or normative regard for poverty.\(^3\)

Given that poverty has been conceptualized unidimensionally in economic well-being, capability, and social inclusion terms, their incorporation in the multidimensional framework would be not only conceptually desirable but methodologically plausible\(^4\) (Sengupta 2005; UNDP 1997, 2005; Wagle 2002, 2005). Unlike in other cases of limited multidimensionality, however, the resulting framework represents a truly comprehensive multidimensional approach. The different theoretical developments in poverty research suggest that these three dimensions constitute different manifestations of poverty. The economic well-being dimension, for example, captures the physical resources determining the material quality of life. Although economic capability and economic welfare are highly synonymous, with the latter being a more critical indicator of the material quality of life, the former can sufficiently gauge the extent of the latter. The capability dimension captures the ability, strength, or resourcefulness to produce the inner quality of life, enabling one to enjoy the freedom needed to achieve valuable functionings. What is important is the degree of freedom and yet what can be observed or examined are the indicators of capability or functionings. The social inclusion dimension, moreover, embodies the resources needed to determine the social and relational quality of life with significant bearings on securing economic well-being and freedom. Because social processes largely determine the rule of who is in and who is out in terms of the economic, political, and civic/cultural integration in society, they constitute a powerful element in the equation (production function) producing the overall quality of life or well-being.

The relevance of the multidimensional approach does not just rest on where each person falls on each of the poverty dimension continua, however. It is the powerful interplay among the dimensions of poverty that provides an important value added to understanding how poverty is constructed and what policy measures may be needed to tackle it. The conventional income- or consumption-based approaches have tended to

---

\(^3\) These theoretically substantive issues will be revisited while discussing the operational issues later in the chapter.

\(^4\) While the UNDP’s (1997, 2005) human poverty index is constructed as a composite of economic well-being, capability, and social exclusion especially in case of OECD countries, the approach is largely simplistic and narrow in coverage. In most cases, for example, GDP, income poverty, or child malnutrition, and access to safe drinking water are used as the indicators of economic well-being, longevity and adult literacy are used as the indicators of capability, and long term unemployment is used as the indicator of social exclusion.
look at poverty as an economic problem, independent of the capabilistic or relational issues. Even those focusing on more innovative approaches placing freedom at the core have failed to sufficiently account for the interconnectedness between the individual and social dynamics thus collectively determining how one fares in society.\(^5\) Under a more comprehensive social inclusion approach, however, poverty would be construed as a social construct involving people’s integration into the economic, political, and civic/cultural systems that are customarily considered as the integral elements of the relational quality of life. It is only the multidimensional approach incorporating these person and institution centered conceptualizations that can provide accurate understanding of the nature and magnitude of poverty.

Although these different poverty dimensions are highly interrelated, with one affecting the other, one’s status on one dimension is not perfectly predictable using that on another as the unidimensional approaches often make us believe.\(^6\) A higher level of capability is conducive to deriving resources needed to elevate one’s economic welfare and yet not all with higher capabilities choose to do so. People may demonstrate genuinely altruistic or charitable motives and thus try to maintain austere lifestyles, for example, especially if their cultural or individual value systems go against more profligate lifestyles. Similar explanations can be true of the relationship between economic well-being and social inclusion as not all economically resourceful people elect to economically, politically, and culturally integrate into the larger society. While the extremely wealthy often tend to distinguish themselves from the rest in society by creating restricted access to their exclusive lifestyles, those lacking adequate economic resources may also be highly integrated in society. The latter may hold especially for groups or communities with common background and interest as their lowness of economic resources may necessitate appropriate coping strategies including pooling of resources from each other (Lewis 1966; Nayaran et al. 2000; Stack 1974; Valentine 1968). Despite this, involuntary exclusion from the mainstream society, which

---

\(^5\) Although more recent developments in the capability approach has seen attempts to incorporate the social dimensions of freedom (Sen 2000), this has been in response to the relevance of social inclusion explanations of poverty with the central role of social institutions.

\(^6\) This applies specifically to the conventional approaches to poverty. While more recent, innovative approaches do not necessarily make such assumption, their theoretical distinction from other approaches tend to downplay the other dimensions of poverty.
tends to deny people the needed rights and protection, is generally more likely to lead to lower levels of capability and economic well-being.

Figure 3.1 sketches the fundamental core of the multidimensional poverty approach. It presents what dimensions are integral components of this approach, how such dimensions are determined, and how they are interrelated. To simplify, poverty is conceived as a composite construct including economic well-being, capability, and social inclusion as separate, and yet related, dimensions. Because these three dimensions cannot be directly observed, their measurement necessitates using multiple indicators. Also, since social inclusion is a multidimensional construct in itself, it decomposes into three (sub)dimensions including economic, political, and civic/cultural inclusion, which in turn are measured using a set of observable indicators.

As specified in Fig. 3.1, poverty or, more specifically, one’s resourcefulness, is jointly determined by one’s status in economic well-being, capability, and social inclusion. Unlike in the conventional, unidimensional approaches, faring low in one particular dimension such as economic well-being would tell only a part of the story as the likelihood of having a poor living standard depends on the availability of economic, capabilistic, and relational resources. Additionally, not all of the poor experience poverty to the same degree. Determining the overall poverty status by looking at one’s status on all three poverty dimensions allows the measurement outcomes to exhibit these qualitative differences across the poor.

Not all poverty dimensions have equal roles in determining the poverty status either. The information derived from each of the dimensions can be weighted differently, depending on the specific values societies place on them. As will be seen, while empirical procedures provide the relative strength of each of the poverty dimensions, how important each dimension is in determining the poverty status and how to best use this information for further analysis depends on some non-empirical judgments.

Apparently, this approach assumes the multidimensionality of poverty, a hypothesis widely supported by the previous research. In addition to estimating poverty dimensions with usefulness in identifying people’s poverty statuses, this model allows to empirically test this multidimensionality hypothesis. This can be tested by looking at not just the correlations between each dyad of the poverty dimensions, but more importantly at the nature and size of the interrelationships among them. The arrows interlinking each dyad of the poverty dimensions in Fig. 3.1, for example, capture these interrelationships thus allowing the framework
Note: 1) The squares or rectangles indicate observed variables and the ovals indicate latent poverty dimensions

2) The blank ovals indicate errors in measurement or equation

Fig. 3.1 The multidimensional poverty model
to estimate them. Further, while large correlations or relationships provide evidence for the multidimensional hypothesis, a perfect correlation or unitary interrelationship would indicate the dimensions involved are perfectly predictable, thus working against this hypothesis.

3.2.2 Indicators of Poverty Dimensions

Since economic well-being, capability, and the three social inclusion (sub)dimensions included in Fig. 3.1 cannot be directly observed, they need to be measured using a set of observable indicators. For the measurement outcomes to be accurate, these indicators need to be appropriate, complete, and theoretically consistent. At the same time, however, the internal validity can be at risk especially in case of capability and the social inclusion (sub)dimensions because prior attempts to operationalize them have been only selective and/or experimental. The theoretical discussions as well as prior operationalizations provide only sketchy suggestions for their appropriate indicators. The following observation is based mostly on the prior theoretical discussions, especially in case of capability and social inclusion, which would have to be empirically tested for their appropriateness.

First, the theoretically relevant indicators of economic well-being include income, wealth, consumption, and subjective views on the adequacy of income and consumption (Gordon 2000; Pradhan and Ravallion 2000; UNDP 2002; Wagle 2002, 2005, 2007b; World Bank 2001, 2003). Since income, wealth, and consumption measure different, albeit closely related, aspects of the material resources, all three variables would have to be used to derive better and internally valid measurements. Income is often treated in studies as a primary variable with the assumption that income, wealth, and consumption are highly correlated. It might also be

---

7 The framework provides the three social inclusion (sub)dimensions as standalone indicators of social inclusion, without any relationships among them as well as with other poverty dimensions. The actual operationalization developed later, however, will treat these (sub)dimensions as separate poverty dimensions with a complex web of their interrelationships.

8 Appropriateness and completeness are two distinct concepts, however, with the former dealing with face validity and the latter dealing content validity. Because of the comprehensive nature of the poverty dimensions, it will be difficult to fully establish content validity with a given set of indicators, let alone in an empirical sense. The use of any set of indicators needs to be substantiated with appropriate theory. But the empirical test will be useful to establish face validity of each indicator.
the case, however, that those with identical incomes wind up consuming varied levels of goods and services and that others with varied levels of consumption expenditures wind up having identical nutritional statuses (Wagle 2006a). With regard to wealth, too, although it tends to be correlated with income, wealth tends to measure a different aspect than do income and consumption. It might be true, for example, that a higher level of wealth leads to a deteriorating health status as the wealthy may espouse reckless spending habits, thereby spending more on unhealthy items. The role of subjective assessment of the adequacy of income for consumption is also important. Because poverty is experienced by real people possessing real feelings about their own economic welfare, it can add a valuable piece of information to the analysis (Brady 2003; Lever 2004; Narayan et al. 2000; Saunders et al. 1994; Veenhoven 2007; Wagle 2007c).

Second, the capability dimension determining the inner quality of life can be measured using such observable indicators as education, health, nutrition, self-respect, prestige, and gender, racial, and ethnic disparities (Beall 1997; Checchi and Lucifora 2000; Qizilbash 2003; Qizilbash and Clark 2005; Ruel et al. 1999; Satterthwaite 1995; Sen 1992, 1999; UNDP 1997, 2000a; Wagle 2002, 2005). The concern under the capability approach is to assess the degree of freedom one enjoys in effecting the functionings that are valuable. Instead of measuring the degree of freedom directly, these indicators measure the level of capability, which is used as a proxy for the former. While education alone has been used as a proxy for capability, self respect, prestige, health, and nutrition would also be central to look at the constitutively important functionings. Although their inclusion is important to create a comprehensive set of measures, gender, racial, and ethnic disparities would be typically more difficult to measure. Also, unlike in case of economic well-being, the indicators of capability are less likely to be perfectly correlated with each other, thus ruling out the possibility of using one proxy for another.

Third, the social inclusion dimension indicates availability of the relational resources determining how socially included/integrated one is with respect to economic, political, and civic/cultural activities. When one is socially excluded, her or his participation is inhibited in activities that are pivotal to benefiting from the market as well as publicly available resources. Of these three social inclusion (sub)dimensions, economic inclusion can be measured using access to financial resources such as credit and the quality of labor market participation including occupation, occupational prestige, and employment status (Atkinson 1998; Castel 2000; Chatterjee 1999; Evans 1998; Khundker et al. 1994; Moser 1998; Wagle 2002, 2005). Access to financial resources directly affects one’s
economic opportunities where as the labor market participation indicates how meaningfully integrated one is in the economy. There should not be anything inherently wrong with participating in the labor market differently or in being in one occupation or the other. At the same time, it essentially does have significance in one’s advantage in today’s segregated labor market with highly disparate economic payoffs.

The political inclusion (sub)dimension can be measured using such indicators as political activities including exercising political rights, participation in elections and other informal political activities, staying politically informed, and maintaining connections with political representatives (Burchardt et al. 2002; de Wit 1996; Figueroa et al. 1996; Gore et al. 1995; Strobel 1996; Taylor 1999; UNDP 2000a; Wagle 2002, 2005). Political participation is one way people can influence policy agenda and effect desired policy changes. Of importance are not only the formal political processes such as voting but other informal processes including protesting, joining political rallies, campaigning, donating money for political causes, and holding political positions. Staying informed and communicating with and getting explicit attention from political representatives can also be crucial to getting things done involving political processes. Because inclusion signifies a qualitatively meaningful representation, a low degree of political inclusion would cause relational poverty and thus a low quality of life.

Finally, civic/cultural inclusion indicates how included one is in social activities. These activities include being involved in civic organizations, groups, and clubs, participating in social gathering, community level activities, and religious functions, and maintaining family and ethnic ties (Amis and Rakodi 1994; Burchardt et al. 2002; Castel 2000; Grootaert 2002; Gunatilleke and Perera 1994; Jordan 1996; Opel 2000; Wagle 2002, 2005; White 1997). People with higher levels of civic participation are more advantaged, more informed about public affairs, and able to assess the opportunities available to them, thus enhancing their relational resources. These are the people to enjoy the basic social rights and to more fully exercise their religion and culture that help maintain important social networks and ties.

### 3.2.3 Identification of Poverty Status

The entire enterprise of poverty research makes applied contributions to policymaking. Poverty measurement, for example, has implications for identifying who is poor and who is not. Because the state and other relevant agencies use poverty measurement outcomes in targeting economic
and social policies, any misguided measurement approach would have adverse impact on policy actions. When poverty statuses are erroneously identified, the consequence will not only be inappropriate policy prescriptions with ineffective measures to deal with poverty. It will also be inaccurately identified target population and thus inaccurately targeted policies.

The process of identifying the population in poverty can go wrong in a number of ways. One is the use of information itself. The availability and use of a more comprehensive set of information likely result in more accurate measurement outcomes. The purpose is to thoroughly understand people’s living conditions, how they operate in day-to-day lives, and what are the challenges facing them in efforts to improve quality of life. More information on people’s behavior and activities would help better understand their living conditions. At the same time, there always exist data constraints in that collecting comprehensive sets of information will be expensive and operationally infeasible in many policy circumstances. The goal, therefore, is to create an accurate understanding given data and resource constraints. The resource constraint further indicates that policymakers cannot afford to aimlessly wander around with irrelevant information. The theoretical framework also needs to be accurate and pertinent to the given policy context.

Partly, this entire process of measuring poverty can be political as policymakers often have ideological orientations and goals serving as yet another constraint. What conceptual frameworks are likely to be used, what data are to be collected and utilized, and how the poor are demarcated from the rest in society are pragmatically relevant points in the policymaking world. While policymakers use data and frameworks that are relevant to the given policy context, the issue of identifying the poor can be politically controversial. Because societies have the levels of inequality they do, this is precisely where policymakers have to decide on what level of poverty is tolerable from the policy standpoint. A more stringent poverty threshold, for example, would lead to lower poverty estimates, calling for less comprehensive policy resources to address it. Although one expects to see an objectively guided process used for poverty measurement, the movement of poverty threshold up and down in a continuum and the likelihood of some countries to embrace more stringent thresholds suggest that this process is essentially political.9

9 The existing income-based poverty lines appear to be absolutely political (Glennerster 2002). In the 1960s, for example, the official poverty line in the US was set out to be approximately one-half the median income, which by the 1990s was reduced to one-third of the median income. With growing housing,
The case in point is one of the conventional poverty measurement approach using data on income to identify poverty status. In the United States, for example, income-based, experimental poverty lines have been proposed as a result of the attempts to mitigate the issues of equivalence scale, taxes, and in-kind transfer of resources (Citro and Michael 1995; Dalaker 2005; Joassart-Marcelli 2005). Yet, critics charge that they do not provide any indication of the appropriate policy prescriptions in order to cure poverty among different groups of people. Because the focus is entirely on lowness of income, policy measures adopted to address this have invariably included welfare support and employment without much regard for the issues of human well-being, working poverty, and economic inclusion (Jossart-Marcelli 2005; Newman 1999; Wilson 1996, 2006). The persistent issue of working poverty alone suggests that part of the problem is inadequate compensation thus fuelling the economic inequality in the past few decades (Joassart-Marcelli 2005; Newman 1999; Smeeding 2005).

At the international level, too, the vehement advocacy of the notion of income poverty together with international poverty thresholds has aroused serious policy concerns. The focus on economic growth, human capital, and social safety nets aimed at avoiding low income, for example, has not affected highly promising results (Gaiha and Kulkarni 1998; Gordon 2002; Makinen 1999; McKay 1997; Townsend 1999, 2002). It is quite complex to understand global dynamics of poverty. At the same time, however, part of the resulting policy failure can be attributed to the lack of understanding that these unrealistically imposed poverty guidelines provide, with no indication of what the poor look like in respects other than income.

The conventional poverty measurement approach, for example, does not differentiate between different categories of people when it comes to identifying their poverty status relative to their incomes. People’s needs transportation, insurance, and childcare costs in the United States, even those focusing on income or consumption based poverty thresholds propose divergent arguments over what the actual poverty threshold should look like (Citro and Michael 1995; Dalaker 2005; Joassart-Marcelli 2005). As for the relative approach, on the other hand, whether to use 50 or 60 percent of the median income as the poverty line is debatable. While almost all European countries now use 60 percent standard, the UK uses the 50 percent standard for its official purposes.

10 South Asia provides an interesting example. While the poverty headcount ratio declined in this region during the past two decades, the actual headcount of the poor did not, owing perhaps to population growth especially in families in poverty (Wagle 2007a).
vary depending on their characteristics and lifestyle choices. Health condition is one of such aspects, which greatly influences one’s needs, with a relatively unhealthy person sacrificing a substantial portion of income for healthcare. The difficulty in measuring the actual level of consumption is another factor that the income or consumption based approaches miss. The short versus long term perspective of quality of life is another aspect that the traditional income or consumption based approaches fail to incorporate. People’s conditions change especially in today’s rapidly changing global epoch and, for this reason, the sole focus on the monetary capacity does not capture the overall quality of life that tends to have a relatively smooth distribution over time. The ubiquitous use of private or public safety nets including credit cards, loans, and state supports can make one’s overall quality of life more stable over a longer span.

Operationally, poverty status represents one’s locus on a three-dimensional space indicating that those falling on different elements on the space experience different degrees of poverty. It starts with identification of poverty status on each of the three dimensions, which would form the basis for the identification of multidimensional poverty status. As shown in Fig. 3.2, for example, people are ‘poor’ when they fall in any of the three oval spaces. As such they may be economic well-being poor, capability poor, or social inclusion poor depending on the space in which they fall. If they fall in any two of the three spaces, they could be considered ‘very poor’ as they experience poverty on two different dimensions thus with a very slim likelihood of escaping poverty. The story of those falling at the core sharing all three poverty spaces would be even more precarious with virtually no prospect for escaping it. This group is identified as the ‘abject poor.’

The identification of multidimensional poverty status provides specific measurement outcomes with the three categories of poverty, thus offering important policy implications. The economic well-being poor tend to be somewhat different from the capability poor, who are further different

---

11 The multidimensional space of poverty can be based on five or three dimensions depending on whether one treats the three social inclusion (sub)dimensions as separate integrated dimensions. The three social inclusion (sub)dimensions are appropriately handled as separate dimensions in analyzing the poverty issues and in constructing and verifying the specific channels through which they are determined. At the same time, they can be appropriately aggregated as the overall social inclusion dimension for its use in identifying the poverty status of individuals. While the resulting poverty categorization on the social inclusion dimension is essentially multidimensional, working with three dimensions is both theoretically justified and operationally more manageable.
from the social inclusion poor. The information with identification of these
different groups of the poor is enormously rich in understanding how
different forms of poverty are constructed and re-constructed, what may be
responsible for maintaining such statuses, and what policy prescriptions
may be needed to address these issues.

The traditional approaches, too, recognize that not everyone categorized
as the poor faces poverty to the same degree. They distinguish between
different degrees of poverty by using, for example, the notions of ‘poverty
gap’\textsuperscript{12} and ‘chronic poverty,’\textsuperscript{13} among others. Although useful to gauge the
extent of different degrees of poverty, these notions focus exclusively on
income as the basis of categorization. The multidimensional categorization
with three degrees of poverty provides a more accurate basis for the
picture of poverty created. The comprehensive amount of information
utilized in making such assessments renders the outcomes more accurately
reflective of the actual degree of poverty experienced.

\textsuperscript{12} It measures the difference between a poor person’s income and the applicable
poverty threshold.

\textsuperscript{13} This is used to measure the length of time a person has been poor. Typically,5 years is used as the applicable cutoff point.
The three categories of the poor experience different degrees of poverty. The abject poor, for example, are poor from economic well-being, capability, and social inclusion standpoints. This group with inadequacies in material, inner, and relational resources is actually the poorest section of the population and thus has the least likelihood of escaping poverty. This group may come close to what many identify as the ‘chronic poor’ (Hulme et al. 2001; Hulme and Shepherd 2003; Metha and Shah 2003), which is a prolonged variant of poverty. Given the interconnectedness among the poverty dimensions, however, systematic processes and outcomes in society may make it more difficult for the abject poor to escape poverty than for the chronic poor who may have fallen back as a result of some negative (financial) shock (Amis 1994; Baulch and Hoddinott 2000). Clearly, this group needs the most extensive policy resources and attention to improve and sustain the access to resources on all three fronts. The next group needing slightly narrower set of policy attention is the very poor as it is identified as poor on any two fronts. While there may be a qualitative difference between the three forms of poverty, this group, though still at risk of being abject poor, has something to hang on. The last group being poor on just one of the three dimensions is qualitatively different from the very poor. This group may have a low level of economic well-being, for example, but it has less bleak prospect for improvement in quality of life since it is capable enough or is not systematically excluded from the economic, political, and/or civic and cultural systems. While still poor, this group falls back in the priority for policy resources and attention.14

Governments do not always have resources needed to sufficiently tackle poverty and other social problems. While governments prioritize policy issues, these social issues almost always obtain low priorities thus invoking incremental approaches to policy interventions. This is even more crucial in societies where the overall tax base is either low or unsystematic as the more resourceful are likely to eschew paying taxes. Even in societies with well-developed tax base, on the other hand, formidable political pressures exist inhibiting the introduction of redistributive policy measures (APSA Task Force 2004; Jacobs and Skocpol 2006; Piven 2006). While the notion of ‘inactive’ agency such that the poor are tacit beneficiaries of social policies is not necessarily true (Sen 1995), political environments largely dictate the process of formulating and executing public policies (Wagle 2000).

14 This does not mean, however, that this group ends up with less attention. Because who gets what from policies is determined through the political calculus, in reality, the most deserving poor may end up with the least amount of policy resources and attention (Berrick 2001; Sen 1995; Stone 2002).
Historically, targeting policies at specific groups of the poor has been largely unsuccessful. The reason, Sen (1995) argues, has to do with the active nature of ‘agency’ receiving the support, where people have incentives to avoid something (employment) in order to qualify for something (money) in return. Targeting policies based on income has clearly been counterproductive. Targeting based on capability or social integration incorporated in the multidimensional approach would be more effective, since no incentives would exist to avoid something (education, health, or employment) in order to get something (education, healthcare, or work) in return. The multidimensional poverty outcomes, therefore, are relevant not only in terms of what policy initiatives to effect but which groups to target. This provides enormously useful information even when governments attempt to incrementally address the issues, whether they take the top–down or bottom up approach ascribing to their political and resource constraints.

3.3 Operational Framework

Poverty research has seen enormous methodological developments in the past few decades. Researchers have come up with better ways to improve the basic needs approach so that the established poverty lines are more useful to measure absolute poverty. Work around the relative and subjective notions of poverty has focused on finding the best yardsticks to identify the poor, reflecting on the rapidly changing economic inequality landscapes. The relatively new capability and social inclusion approaches too have seen considerable operational developments so that the level of capability and social inclusion can be accurately measured. Fuzzy sets analysis, factor analysis, and structural equations are few innovative approaches used to handle situations where the concept being measured necessitates use of multiple indicators. While widely agreeable methodologies are yet to emerge, these new developments have cultivated ways to efficiently operationalize various theoretically justified approaches.

The remainder of this chapter develops a generic operational framework that can be applied to measure multidimensional poverty with appropriate modifications. I develop separate unidimensional frameworks useful to measure poverty using the economic, capability, and social inclusion approaches and integrate them into a more comprehensive multidimensional framework. While the unidimensional frameworks used here as the point of departure do not strictly follow the routes cultivated by the new developments in the field, I draw important methodological lessons from them.
3.3.1 Unidimensional Operationalizations

Each of the three approaches discussed here explicitly or implicitly assumes a model that its proponents believe best represents the true model. What follows is an attempt to conceptualize formal models applicable to each of these three poverty approaches. It must be noted, however, that these are generic versions of the model and thus may deviate from the actual models used to measure poverty under each approach.

First, the economic well-being approach informs that the level of economic well-being sufficiently indicates one’s poverty status. The chief interest here is in measuring the level of economic well-being. Because economic well-being is an abstract concept that cannot be directly observed or measured by including some explicit questions in a survey, some assume income adequately measures the level of economic well-being while others assume consumption to adequately measure it. Studies have also looked at people’s subjective views regarding the adequacy of income and consumption to identify their economic well-being status. Additionally, although studies have not readily used wealth as a predictor, wealth poses a plausible candidate to measure economic well-being.

The conventional approach to identify poverty status is simply to compare one’s actual income or consumption against the pre-established poverty threshold. One can be considered poor if her or his income or consumption, \( W_i \), is below the threshold, \( W_i^* \) and not poor if it exceeds the threshold. Assuming \( W_i \) to be the income or consumption of the \( i \)th individual, \( W_i < W_i^* \) is the condition for one to be considered poor. If one were to estimate the levels of economic well-being using income, as its proxy measure, and use other capability and social inclusion related variables to predict them, its model would take the following generic form:

\[
W_1 = \beta_{w1} + \Lambda_{w1}y_e + \Delta_{w1}y_s + \varepsilon_{w1} \ldots \ldots \ldots \quad (3.1)
\]

---

15 One may in fact include questions explicitly dealing with the perceived level of economic well-being. Like depression, stress, or mental health, however, these questions may not be very useful to identify the magnitude of well-being partly because of the misunderstanding of the concept or misreporting likely with these abstract and/or sensitive issues.

16 These variables or dimensions are used here to be consistent with the multidimensional framework which includes them in one single model. Demographic variables are not included because they do not play a role in measuring any of the poverty dimensions and thus poverty.
where, $W_i$ is the income used as the proxy measure of economic well-being, $y_c$ is the vector of capability related variables, $y_s$ is the vector of social inclusion related variables, $\beta$, $\Lambda$, and $\Delta$ are the coefficient scalars or vectors loading on $W_i$, and $\varepsilon$ is the error term. In this case, the capability and social inclusion related variables are used as exogenous variables affecting income. Depending on the interest to include the capability and/or social inclusion related variables, the second and/or the third terms on the right hand side may drop out. Typically, the variables contained in $y_c$ and $y_s$ are used to explain $W_i$, not to estimate it.

Since economic well-being is a latent concept and thus cannot be observed directly, estimating it requires using income, wealth, consumption, and subjective views on the adequacy of income as its indicators. $W$ would then be a composite of its indicators as:

$$W = INC + WLTH + CONS + SVIEWS \ldots \ldots \ldots (3.2)$$

where the variables on the right hand side will be aggregated using appropriate weights. This weighting would be important in order to get to the right form of $W$ as not every variable would be equally valuable in estimating it. If there was a reason to believe that income was the most important of all these indicators, for example, it would essentially be driving the estimate of economic well-being. But this would lead the economic well-being model to take the following form:

$$W = \beta_w y_c + \Lambda_w y_s + \varepsilon_w \ldots \ldots \ldots (3.3)$$

$W$ here is a multi-indicator construct, the value of which depends on its indicators. At the same time, one may argue that $W$ is also a multidimensional construct as it manifests in multiple ways. This last issue, however, depends on the technique used in deriving $W$ with aggregation of multiple indicators into one single measure representing a unidimensional construct. A multidimensional approach would be at play if poverty status were to be identified separately using each of the indicators used.17

17 One can take a weighted or unweighted average of all of the indicators used with identification of poverty status occurring after this aggregation. Because the aggregates provide abstract estimates of the construct, it would be more difficult to use directly sensible, absolute approach to identify poverty status. Identifying relative poverty status would therefore be easier in this case.

18 This would involve identifying poverty status using $INC$, $WLTH$, $CONS$, and $SVIEWS$ separately. The income poverty status for the $i$th person would depend on whether or not $INC_i < INC^*$, where $INC^*$ represents the income poverty threshold. After the similar process is applied for $WLTH$, $CONS$, and $SVIEWS$, the
Second, literature focusing on the capability approach suggests that capability as a latent variable can be estimated using some other observable indicators. Although education and health status are used as the proxy indicators of capability, the capability approach has yet to see specific poverty measurement studies involving estimation of the overall capability scores and identifying poverty statuses using some pre-established capability poverty threshold. A more accurate measurement would include all relevant indicators including education, health, nutrition, prestige, self-respect, and gender and ethnic disparities. Just like the way economic well-being is measured using Eq. 3.2 above, capability, \( C \), would be measured as a multi-indicator construct involving all its indictors. Whether capability is measured as a unidimensional or multidimensional construct would depend on the specific method used with the unidimensional method requiring pre-aggregation and the multidimensional method requiring post aggregation.\(^{19}\) Regardless of the choice of the technique, however, poverty status is identified by applying some poverty threshold to determine whether one’s capability score falls below or above it. One is considered poor, for example, if \( C_i < C^* \). But the model used to predict the levels of capability using both the economic well-being and social inclusion related variables would take the following generic form:

\[
C = \Lambda_c + \beta_c y_w + \Delta_c y_s + \varepsilon_c \ldots \ldots (3.4)
\]

where, \( C \) is the capability measure derived by using its multiple indicators and \( y_w \) is the vector of the indicators of economic well-being, which served as the variables estimating \( W \) in Eqs. 3.2 and 3.3 above. Studies using single indicators of capability, like in case of education, would use the proxy estimates of \( C \) on the left hand side of the equation. Here too, the variables contained in \( y_w \) and \( y_s \) vectors would be used as the exogenous variables especially in order to predict \( C \). The use of social inclusion related variables may vary between the capability and economic well-being studies. This is plausible given different foci under these approaches. But its implication would be on the breadth of the data that are required to carry out the analysis and their findings.

\(^{19}\) See the above footnotes for the unidimensional and multidimensional methods.
Third, although empirical studies are yet to emerge focusing on the level of social inclusion as a proxy measure of poverty, there is a model tacitly embraced by the social inclusion approach. The latent construct, social inclusion, however, decomposes into three (sub)dimensions including civic/cultural inclusion, economic inclusion, and political inclusion. These latent (sub)dimensions can be estimated by using one or more indicator variables associated with them. While literature provides a host of variables that can be used to estimate social inclusion, a better approach as in the previous two cases would be to aggregate all associated indicator variables. The model suggested by the social inclusion approach would take the form:

\[ S = \beta_s + \Lambda_s y_e + \Delta_s y_c + \varepsilon_s \ldots \ldots \ldots \]  

(3.5)

where, \( S \) is the social inclusion score. There are a host of social inclusion indicators and studies may typically focus on particular aspects of social inclusion. Much of the focus of social inclusion in Europe (Atkinson 1998, 2000) and in the OECD countries (UNDP 1997, 2005) in general, for example, has been on employment and labor market dynamics. In this specific case the left hand side of the equation would represent inclusion in terms of employment and labor market. The size and scope of the \( y \) variables and therefore of the social inclusion construct would dependent on the theoretical and operational issues.

Just like in previous cases, the social inclusion poor would be identified by developing some acceptable poverty thresholds and comparing the actual estimates for the individuals.\(^{20}\) While it is easy to identify the poverty status of individuals using \( S_i < S^* \), more critical would be developing such poverty threshold. Because social inclusion is a very complex construct in this model involving indicators of the three (sub)dimensions, it has implications for deriving its measurement. One, this complex process suggests that the resulting social inclusion scores would not be highly palatable to developing some unambiguous poverty threshold. The composite scores of social inclusion, for example, would not have a directly interpretable meaning. Next, the incorporation of three separate (sub)dimensions would suggest that social inclusion may no longer be a unidimensional construct especially when multiple (sub)dimensions of social inclusion are used. Social inclusion may be aggregated using the following:

\[ S = S_e + S_p + S_v \ldots \ldots \ldots \]  

(3.6)

\(^{20}\) See the above footnotes for the methods of aggregation.
where the subscripts $e$, $p$, and $v$ identify the economic, political, and civic/cultural variants of social inclusion. Unlike with economic well-being and capability, however, the case of multidimensionality may be more crucial because of the involvement of multiple (sub)dimensions.

Given that studies typically focus on specific aspects of social inclusion, the right hand side of the equation would still be unidimensional and easily interpretable. This would be relevant, for example, in studies using unemployment as the only indicator of social inclusion. Poverty status, in this case, may be identified by categorizing all the unemployed as the poor. There are also caveats in terms of the composition of the vectors containing the indicators of capability and economic well-being. These may not be exactly the same as presented in the earlier models from both theoretical and operational standpoints. The type of relationships suggested by these models, therefore, can vary.

### 3.3.2 Multidimensional Operationalization

The multidimensional operationalization of poverty incorporates the three unidimensional operationalizations presented earlier. Instead of three, however, this would include five separate dimensions of poverty including the three social inclusion (sub)dimensions. It is important to treat these (sub)dimensions separately incorporating their individual relationships with other poverty dimensions. There are also important substantive differences, for example, between the economic and political inclusion dimensions as just because people are well-integrated into the economy does not mean that they will exhibit a high level of political participation and integration. Studies generally support that the more resourceful tend to be more likely to meaningfully participate in different political activities (Jacobs and Skocpol 2006; Verba et al. 1997; Wagle 2006a). And yet, not all economically included people participate in such activities, for example, in the United States where political participation runs quite low. Additionally, such differences exist between the civic/cultural and political as well as economic inclusion dimensions as the types of activities associated with these dimensions tend to be quite different.

The five unidimensional equations (Eqs. 3.3, 3.4, and three derived from Eq. 3.5) form the basis for the multidimensional operationalization using the classical econometric techniques. These include:

$$ W = \beta_w y_w + \Lambda_w y_c + \Delta_w y_e + \Phi_w y_p + K_w y_v + \varepsilon_w \ldots \ldots \quad (3.7) $$

$$ C = \beta_c y_w + \Lambda_c y_c + \Delta_c y_e + \Phi_c y_p + K_c y_v + \varepsilon_c \ldots \ldots \quad (3.8) $$
Where, $E$, $P$, and $V$ are economic, political, and civic/cultural (sub)dimensions and $y_e$, $y_p$, and $y_v$ are the vectors of indicators of these (sub)dimensions respectively. Note that the last three equations dealing with the social inclusion (sub)dimensions derive directly from Eq. 3.5, which originally incorporated these unobservable (sub)dimensions as indicators as if they were observable. The $y$ indicator sets used to measure the respective poverty dimensions are identical in each of the equations except the constant terms. Also, the $y$ indicator sets are used to regress the respective poverty dimensions derived from them. By putting together in a system of equations, the information treated as exogenous in the unidimensional frameworks becomes central to estimating each of the poverty dimensions. This indicates a recursive nature of the equations, implying that the scores on one particular dimension do not have repeated effects on themselves.\footnote{In this case, each equation would exclude the $y$ vector containing the indicators of the dimension being regressed.} This is true when the equations represent models determining a single poverty dimension each, in a unidimensional space. In a multidimensional space, on the other hand, the poverty dimensions interface with each other as the overall poverty status is to be determined jointly. All of the poverty dimensions are interrelated in reality, necessitating that a multidimensional approach should allow any system of interrelationships that have significant bearing on determining the scores on each of the dimensions. This interrelationship is not explored fully in the above unidimensional models. The case of simultaneity can be more appropriately handled when a system of simultaneous equations is used, necessitating further reconfigurations of the unidimensional models. Equally importantly, the above equations assume the estimation of the poverty dimension scores to take place entirely outside of the model. Equation 3.7, for example, makes use of the economic well-being scores on the left hand side and yet without specifying how they are to be estimated using the indicators chosen. Similar omissions are prevalent in other equations.

The structural equation framework, on the other hand, helps mitigate these shortcomings thereby incorporating all poverty dimensions and their indicators into a multidimensional model. As a starting point, the
3.3 Operational Framework

following equations provide the measurement of each poverty dimension using their respective indicators. Unlike in Eq. 3.2, however, these dimensions are denoted by the common factor, \( \eta \), and assumed to be measured with errors.

\[
y_w = \Lambda_w \eta_w + \varepsilon_w \\
y_c = \Lambda_c \eta_c + \varepsilon_c \\
y_e = \Lambda_e \eta_e + \varepsilon_e \\
y_p = \Lambda_p \eta_p + \varepsilon_p \\
y_v = \Lambda_v \eta_v + \varepsilon_v
\]  

(3.12)  
(3.13)  
(3.14)  
(3.15)  
(3.16)

Where the \( \eta \)'s are the poverty dimension scores constituting the common factors estimated from the sets of dimension indicators and \( \varepsilon \)'s are the measurement errors. Using factor analysis, these equations identify the weights or loadings that are relevant to measuring the poverty dimension scores. While how important each indicator is in measuring the poverty dimension scores can be mostly theoretical, with important role of values and norms that societies hold, this is an empirical approach to dealing with the issue of aggregation. This approach is justified, however, when all of the potential indicators of poverty dimensions are carefully chosen with appropriate theoretical relevance. Empirical robustness, in this regard, provides additional evidence for the validity of the pre-conceived theoretical constructions. Regarding the magnitude of the contribution that each indicator makes too, more highly correlated indicators tend to load higher due to their commonalities thus reaffirming the assumption of unidimensionality of each poverty dimension.

With \( y \in Y_{dk} \)—a vector containing indicator sets of each of the poverty dimensions—the following measurement equation summarizes all five equations listed above (Eqs. 3.12–3.16) thus measuring \( \eta \in \eta_d \):

\[
y = \Lambda \eta + \varepsilon \\
\]  

(3.17)

where \( y \) denotes the dimension indicators organized by \( d \) dimensions and \( k \) indicators and \( \Lambda \), \( \eta \), and \( \varepsilon \) denote the vectors of loadings, dimension scores, and errors respectively. For all five dimensions, estimates of \( \eta_d \) would depend on their indicator sets, \( Y_{dkis} \), which are the truly observable variables for each individual. Algebraically, for each poverty dimension:
\[ \eta_d = \sum_{k=1}^{K} \lambda_{dk} Y_{dk}' \quad \forall d: (d = 1, 2, 3, 4, 5) \quad \ldots \quad \ldots \quad (3.18) \]

where \( Y_{dk}' \) is the normalized distribution of each of the K indicators and \( \lambda_{dk} \) is the weight or coefficient applicable to each of the same K indicators. Because the number of indicators used to estimate \( \eta_d \) depends on the dimension itself, the value of K is quite variable.

The measurement of poverty dimensions derived by using their indicators is now useful to operationalize the interrelationships among poverty dimensions. This needs to be done in such a way that the simultaneous or nonrecursive system of equations can be incorporated in the model. Equations 3.7–3.11 are useful again in deriving the interrelationships among the poverty dimensions. While these equations presented the relationships involving the poverty dimension indicators, this has relevance to how the B matrix is constructed (Eq. 3.19) detailing the interrelationships among the poverty dimensions themselves. In effect, the B matrix accommodates all five sets of coefficients (including the constant) in Eqs. 3.7–3.11 estimating the relationships between each poverty dimension and indicators of other dimensions. This matrix incorporates the information treated as the effects of the exogenous variables (the indicators of the poverty dimensions which were not regressed) under the unidimensional frameworks. Rather than thinking of these coefficients as vectors, however, it will be helpful to conceptualize them as scalar coefficients providing the estimates of the relationships between each dyad of the poverty dimensions. The resulting B matrix would be:

\[
\begin{pmatrix}
\beta_w & \Lambda_w & \Delta_w & \Phi_w & K_w \\
\beta_c & \Lambda_c & \Delta_c & \Phi_c & K_c \\
\Lambda_e & \Delta_e & \Phi_e & K_e & \ldots \\
\beta_p & \Lambda_p & \Delta_p & \Phi_p & K_p \\
\beta_v & \Lambda_v & \Delta_v & \Phi_v & K_v
\end{pmatrix}
\]

\[ B = \beta_c \begin{pmatrix}
\beta_w & \Lambda_w & \Delta_w & \Phi_w & K_w \\
\beta_c & \Lambda_c & \Delta_c & \Phi_c & K_c \\
\Lambda_e & \Delta_e & \Phi_e & K_e & \ldots \\
\beta_p & \Lambda_p & \Delta_p & \Phi_p & K_p \\
\beta_v & \Lambda_v & \Delta_v & \Phi_v & K_v
\end{pmatrix} \quad (3.19) \]

The latent variable equation (Eq. 3.20) with the \( \eta \in \eta_d \) vector representing the poverty dimensions employs the above B matrix to accommodate the interrelationships among poverty dimensions. This also allows simultaneous or nonrecursive system of effects so that the effect of one particular dimension on itself is not necessarily unitary. It may, for example, be higher or lower depending on its effects on other dimensions.
3.3 Operational Framework

and their effects on it. It includes $\zeta$ as the vector of errors in equation. $\eta \in \eta_d$ can be determined using the following latent variable equation.

$$\eta = B\eta + \zeta \quad \ldots \quad \ldots \quad \ldots \quad (3.20)$$

In the structural equation framework, the latent variable equation (Eq. 3.20) specifies the causal relationships among the (poverty) dimensions whereas the measurement equation (Eq. 3.17), resembling a multivariate regression model, specifies the relationships between (poverty) dimensions and their indicators. With the integration of factor analysis and multivariate regression, this model requires estimating poverty dimensions using the associated indicators and their interrelationships. The model estimates the free parameters contained in each of the $\eta$, $B$, $\zeta$, and $\varepsilon$ matrices so that the difference can be minimized between the covariance matrix it implies given the specifications and the covariance matrix based on the observed data (Bollen 1989).

### 3.3.3 Identification of Poverty Status

One way to look at multidimensional poverty is to think of it as a combined outcome based on one’s status on multiple dimensions. Since poverty is essentially about lowness of something, multidimensional poverty represents multiple ‘lownesses.’ It is the overall distribution that can identify one’s score as either poor or non-poor, using some pre-established poverty threshold.

Where as $\eta_d \in \eta_{di}$ is the vector of the scores of the $i$th person on each poverty dimension, let $\eta_d^*$ be the vector of the poverty thresholds of the three dimension scores. Poverty status, $R$, of the $i$th person on each of the three dimensions using unidimensional framework can be identified as:

$$R_{di} = 0 \ (\text{or non-poor}) \text{ if } \eta_{di} \geq \eta_d^* \text{ and}$$

$$R_{di} = 1 \ (\text{or poor}) \text{ if } \eta_{di} < \eta_d^*$$

In the multidimensional space, the (overall) poverty status score, $U$, is an aggregate of the three sets of poverty status:

---

22 This matrix would depend on the different covariance matrices including $\psi(=E(\zeta\zeta'))$, $B$, $A$, and $\theta_\varepsilon(=E(\varepsilon\varepsilon'))$.

23 This matrix will include the covariances of the $Y$’s only since these are the only observed variables used in the model.
\[ U_i = \sum_{k=1}^{3} R_{di} \quad \ldots \quad \ldots \quad \ldots \quad (3.21) \]

The following criteria will help identify the multidimensional poverty status, \( M \), of the \( i \)th individual:

- Non-poor, if \( U_i = 0 \),
- Poor, if \( U_i = 1 \),
- Very Poor, if \( U_i = 2 \),
- Abject poor, if \( U_i = 3 \)

This procedure is consistent with the fuzzy set theory, widely used in determining the capability poverty status. Rather than having three categories, however, this framework will include four more specific multidimensional poverty categories.\(^{24}\) Also, this scheme assumes equivalent weights assigned to each poverty dimension. If there is a reason to believe that some of the poverty dimensions are more important, on the other hand, \( U_i \) would be estimated using an appropriate weighting scheme.\(^{25}\)

\(^{24}\) Berenger and Verdier-Chouchane (2007), Lelli (2001), Qizilbash (2003), and Qizilbash and Clark (2005), for example, identify the capability poverty statuses, including the definitely poor, definitely non-poor, and those in between. Person \( i \) would have the membership to the definitely poor if he or she is below the threshold \( D_j^* \) on all the indicators used (\( S_i=1, \text{ if } D_{ij}<D_j^*, \ldots \forall D_j \)) and to the definitely non-poor if he or she is above the threshold \( D_j^{**} \) on all the indicators used (\( S_i=0, \text{ if } D_{ij}>D_j^{**}, \ldots \forall D_j \)). In case of not having full membership to any of these groups, on the other hand, the degree of \( i \)'s membership to the poor would depend on the weighted average of the membership scores on each of the indicators (\( 0<S_i<1, \text{ if } D_{ij}<D_j^* \text{ and } D_{ij}>D_j^{**} \text{ for at least one } D_j \)). In this latter case, the degree of membership to the poor would be determined by the weighted average of \( \frac{(D_j^{**}-D_j^*)}{(D_j^{**}-D_j^*)} \) for all indicators.

\(^{25}\) Rather than identifying the poverty status on each of the dimensions, in this case, the dimension scores would have to be weighted prior to aggregation. The aggregate poverty status score would therefore be:

\[ U = \sum_{d=1}^{3} \eta_d Z_d, \text{ where } Z's \text{ are the relative weights.} \]

The score \( U \), therefore, would have to be evaluated using some predefined rule to derive poverty status.
But what poverty threshold should be used in each case in order to accurately identify the poverty status of a given individual? This is clearly one if not the most controversial issue in poverty measurement. The appropriateness of absolute, relative, and subjective criteria to derive specific poverty thresholds has drawn contentious debate among researchers and policymakers even when such direct measures as income are used. Results have been the development of specific poverty lines applicable to people with different demographic and other characteristics depending on their consumption needs (Wagle 2007a).

From the deprivation standpoint, researchers have also used such arbitrary standards as high school education, recurring medical condition, and lack of basic housing amenities (for example, internal plumbing, or sewerage) to identify poverty status (Deutsch and Silber 2005; Dewilde 2004). Albeit intuitively appealing, this approach invokes serious conceptual issues as the indicators chosen and/or the thresholds used may not accurately reflect the actual resourcefulness being measured across individuals. These conceptual issues further amplify in case of a multidimensional approach, as indexing or aggregation involving multiple indicators disallows development and use of a directly sensible poverty threshold. Although one could develop poverty thresholds for different indicators separately, doing so would be neither substantively meaningful nor methodologically advisable. Methodologically, such approach would lose out directly unobservable but important information in favor of using observable variables, categories, values, and so on. More important is to generate the distribution of an underlying poverty indicator, based on all relevant information, and to use some relative criterion to identify the poor. The poverty threshold for each dimension and especially its relative variant would then depend on its overall distribution.

Different ways exist to aggregate the scores derived for different poverty dimensions, however. First, poverty status can be ascertained, based on each poverty dimension separately. The results can then be aggregated using some highly plausible assumptions. This would be primarily unweighted since poverty status is identified separately on each of the poverty dimensions and post-aggregated to come up with the multidimensional poverty status. Under this alternative, absolute or relative criteria can be used to identify the poverty status on each dimension. Second, the absolute scores can be pre-aggregated to derive one single set of overall poverty scores, assuming equal or differential weights. This set of final poverty scores could also be used for absolute or relative purposes, with the former requiring some pre-established criteria.
to define what value is associated with particular poverty status, and the latter invoking derivation of more simple, relative thresholds. I focus on the first alternative precisely for the reason that it allows the multidimensional process to determine the poverty status using both absolute and relative criteria.

3.3.4 A Note on the Technique

Structural equation modeling (SEM) is appropriate to investigate the relationships among the five latent poverty dimensions and their observable indicators. SEM is a technique to empirically test hypothesized relationships among a set of substantively meaningful variables by comparing the covariance matrix estimated by the original sample and the reconstructed covariance matrix based on the specified model (Bollen 1989; Fan and Wang 1998; Long 1983). By looking at the structural relationships using the supplied covariance matrix, the SEM technique appropriately handles cases involving both latent factors and observable variables (Bollen 1989). Its measurement part attempts to measure the underlying latent poverty dimensions using observed indicators where as the latent variable part tests whether the specified relationships among the latent poverty dimensions empirically hold.

As a widely adopted technique, SEM attracts researchers especially because of its appeal in handling latent variable environments. Bollen (1979, 1989), for example, applied the SEM technique to examine the relationships between the levels of industrialization and political democracy in various countries. Bartolo (2000) operationalized the relationships among human capital, labor income, and socio-demographic factors in a SEM framework. Duncan, Haller and Portes (1968) attempted to identify how mutually reinforcing relationships existed between educational and occupational aspirations between peers with the help of the SEM technique. Dewilde (2004) used the latent class analysis variant of the SEM to examine multidimensional poverty in Belgium and Britain. Judd and Millburn (1980) applied the SEM to investigate relationships between people’s political ideologies and the consistency of their stance on various

---

26 This alternative would necessitate extensive work to ascertain the contribution of each of the poverty dimensions and therefore their indicators to categorize one as poor or non-poor. It would also involve tremendous value judgments to decide how particular values for particular indicators could be compensatory for others, leaving the likelihood of the household of being poor unchanged. I have taken this alternative further in my more recent works focusing on capability poverty. See Wagle (2007d) for details.
practical issues over time. Wagle (2006b, 2007c) operationalized political participation and civic engagement and subjective and objective economic welfare concepts in Nepal in a SEM framework. Wall’s (1995) use of the SEM was to identify what influences individual environmental attitudes and actions and what explains individual environmental attitude-action inconsistencies. The list could go on and on with the central theme that the SEM has evolved into a standard research tool used to analyze quantitative data.

While there are many competing analytical techniques, the SEM is more suitable here given its strength to appropriately incorporate observable variables and latent dimensions and handle simultaneous relationships among the variables examined. Its strength is to appropriately handle cases with categorical variables and with highly skewed distributions likely with most social science data. Although the input data matrices with tetrachoric, polychoric, and polyserial correlations\(^{27}\) in case of categorical and other types of variables can be cumbersome to compute, recent developments with the use of standard software have made such tasks more manageable. This technique, therefore, aligns with unconventional approaches like the present one especially accompanied by some unconventional social science data.

---

\(^{27}\) While the typical data input for the SEM include correlations (or covariances), the zero-order Pearson’s correlation will not be appropriate in case of categorical variables. Here tetrachoric signifies the correlation between dichotomous variables, polychoric signifies the correlation between categorical variables, and polyserial signifies the correlation between categorical and continuous variables. These correlations requiring estimation of a series of Probit models for each categorical variable are often difficult and time-consuming to compute, especially when appropriate software are not readily available.
Chapter 4
Application I: Nepal

4.1 Overview

With the per capita GDP of less that $300 in 2005, one can expect a very high rate of poverty and deprivation in Nepal. Its recent progress in reducing poverty was phenomenal, however, with the poverty headcount ratio declining over eight percent to 31 percent following the official poverty line and to 24 percent following the $1/day international poverty line in the last decade alone (CBS 2005; Wagle 2007a; World Bank 2006). Thanks to the process of globalization that enabled Nepalis to seek employment abroad and remit record sums of money to their families back-home, playing instrumental roles in reducing poverty. At the same time, this progress coincided with increasing economic inequality making Nepal the most economically unequal country in South Asia (Wagle 2007a, 2007b).

The overall living standard in Kathmandu, the capital city of Nepal, tends to be generally higher than in the rest of the country. While Kathmandu does not represent the entire country on experiences with poverty, it exemplifies a case where the overall economic and political landscape has transformed rapidly with important implications for how policies get made and implemented and how policy resources are distributed.

Even more important is how the government treats issues of poverty and overall quality of life, a justified and fair improvement in which ought to be its goal. A lack of resources poses a serious constraint on the government in introducing policies to improve the living condition of the poor to the extent desirable. At the same time, the overall quality of life also depends on how equitably resources are distributed and how much tolerance there is to inequality.

---

1 Some of the contents of this chapter appeared in Wagle (2005).

2 A study showed, for example, that the per capita income in the Kathmandu Valley was US$ 446 as opposed to US$ 142 in the country as a whole. This was double that in other urban areas and quadruple that in rural areas. See UNDP/Nepal (1998) for more details.
This chapter examines poverty in Kathmandu, Nepal, employing the comprehensive, multidimensional framework developed here. Using recent survey data, the task is to provide a thorough understanding of the poverty situation in the city. It will involve deriving multidimensional poverty measurement outcomes, along with the identification of the demographic characteristics of the poor experiencing poverty at varying degrees. These characteristics can then be compared with those from the traditional unidimensional approaches. Also discussed in this chapter are the policy implications of the findings derived from the use of the multidimensional poverty framework.

4.2 Empirical Analysis

As the capital city, Kathmandu is at the center of economic and political power structure in Nepal. It has played the lead role in developing and modernizing the country. The city has undergone an enormous economic and social transformation in the past few decades. From a small town, its ever growing population has helped keep the economy afloat. Migration from other urban areas and countryside has contributed to the burgeoning real estate market. Growing exports and especially imports have rendered international trade and finance businesses highly profitable. Consequently, while the population has massively increased, its economic progress has also gone apace. Where as the decline in poverty headcount ratio in Nepal has been exemplary for the entire South Asia, Kathmandu has been the first area to bear fruit.

With these progresses, however, has come growing economic and social inequality. If Nepal has attained the status of the most economically unequal country in South Asia, Kathmandu has assumed the leadership role in this process. Although the official poverty estimates paint a rosy picture, the gap between the haves and have-nots may have resulted in the relative condition of the poor far worse than it was two decades ago. The infrastructural facilities including electricity, road, communications, water, and sewerage are highly underdeveloped even by a poor country’s standard. Social services including health, education, and housing are largely un-

---

3 To take water, for example, different survey studies have reported that over 30–40 percent of the total population does not have access to piped water supply and that those who have access do not obtain reliable services (Kathmandu Water Supply Program 2000; UMP-UNDP/UNCHS 1998).
available all the while the growing slum communities have turned parts of the city almost inhabitable.\textsuperscript{4}

The traditional approaches to poverty measurement including the official poverty lines do not accurately capture the economic and social dynamics experienced by the population in Kathmandu today. Using the official poverty line developed for use in Kathmandu, for example, the survey data used here would suggest less than three percent as the poor.\textsuperscript{5} One wonders how useful the poverty lines are when the government in a poor country like Nepal suggests that almost no one in its capital city was poor at a time when it was feeling the pain of accommodating a large number of internally displaced people.\textsuperscript{6} In the same vein, while economic resources bring people the ability to consume unprecedented volumes of goods and services, the inner and relational aspects of life have become increasingly important. Access to education, healthcare, jobs, credit, and the like have been connected with political and social networking. People’s relative conditions are highly important when it comes to determining the overall quality of life. These economic and social realities, very typical of many urban areas in the developing world, makes Kathmandu an appropriate venue for the application of this multidimensional approach to poverty. This contextual information is also important to properly understand the findings from this empirical exercise, which will set the stage to identify appropriate policy priorities.

\textsuperscript{4} To take housing, for example, it is estimated that there are at least 33 squatter or slum communities in the Kathmandu Valley with the average population of 15,000. These squatter or slum communities are temporary settlements haphazardly created by people themselves in illegal, public spaces. While there is no empirically justified figure, the majority of these communities are located in the city of Kathmandu. See MPE/IUCN (1999) and UMP-UNDP/UNCHS (1998) for details.

\textsuperscript{5} This is specifically the case when income data are used. When consumption data are used, on the other hand, the estimates appear to be close the official estimates given. I know that part of the reason is the inflation in that the 2003/2004 poverty line was used on the 2002/2003 data. This also brings up the issue concerning the reliability of the sample survey. Notwithstanding these considerations, however, the problem also lies in the degradingly low official poverty line itself.

\textsuperscript{6} A massive influx of people caused by the ongoing political violence in most parts of the country effectively overcrowded the city.
4.2.1 Dataset

The dataset for this analysis comes from a comprehensive household survey conducted in 2002/2003. The survey covered 625 randomly selected households from different parts of the city. Sampling involved delineating a total of 224 separate geographic clusters and selecting two to four houses from each cluster using an Ariel map, large enough to identify individual houses in the city-neighborhoods.

In-person interviews were conducted with householders or people in charge of making major household decisions. Interviews attempted to elicit information on different economic, political, and social aspects of households. Interviewers used a specifically designed questionnaire and followed a highly structured interview procedure, thus maximizing the reliability and validity of the survey. The resulting data with 625 of the over 150,000 households (close to 3000 of the 670,000 residents) were representative of the entire population in the city using many demographic characteristics (see Appendix 1 for a summary of these statistics). Of the 625 households captured in the dataset, however, only 621 households had complete estimates thus making it the effective sample size for this analysis.

The dataset contains a number of variables appropriate to analyze poverty in a multidimensional framework. Because the survey was designed to elicit information relevant to testing the multidimensional approach, variables and estimates are in a format compatible with the need. The dataset covers indicators of economic, capability, and social inclusion dimensions of poverty as well as demographic variables applicable to both householders and households in aggregate.

4.2.2 Model Estimation

I estimated the model developed in Chapter 3 (Eqs. 3.17 and 3.20) with appropriate variations using the data from Kathmandu.

---

4.2 Empirical Analysis

The final multidimensional poverty model (Kathmandu)
The final model presented in Fig. 4.1 derived after multiple iterations of specification, estimation, and evaluation. Not shown in the model are poverty, the aggregate of the five poverty dimensions, and the social inclusion dimension, the aggregate of the three social inclusion (sub)dimensions. Also, since the indicators and latent dimensions are measured with error, the small ovals included in Fig. 4.1 represent the errors in measurement (see Appendix 2 for a description of the key indicator variables used in the analysis). The use of categorical indicators with highly skewed distributions makes the estimation process more complicated, necessitating computation of tetrachoric, polychoric, and polyserial correlations. Utilizing these correlations, the weighted least squared estimator used here provides precise estimates, thus making it best suited to handle this complicated estimation environment (Muthen and Muthen 2005).

As presented in Table 4.1, the overall goodness of fit measures produced by the model lie within a reasonable range. First, while its Chi square statistic of 726 with 180 degrees of freedom does not yield a p-value anywhere close to the ideal probability level of at least 0.05, the ratio of Chi square statistic to the degrees of freedom estimated at 4.033 lies within the liberal comfort zone of less than five (Bollen 1989). This appears to be adequate considering the highly skewed distributions of several indicator variables and the complexity of the model with multiple latent concepts to be estimated. Other popular fit measures including the root mean squared error approximation (RMSEA), cumulative fit index (CFI), and Tucker-Louis index (TLI) reported in Table 4.1 also indicate that the model demonstrates adequate fit (Bollen 1989). Additionally, the $R^2$ estimates provided in Table 4.2 suggest that the model is capable of explaining relatively large variations in the observed as well as latent variables. Especially notable are the considerably large $R^2$ estimates for almost all poverty dimensions, signifying the considerable strength of the model.

---

8 This final model is statistically identified using the t- and two-step rules (Bollen 1989). While I could manually establish identification using these rules, the use of standard software automatically does so in an attempt to estimate SEM models and reports any identification problem. The MPlus software used here indicated that the final version of the model was in fact identified.

9 The addition of two latent concepts forming the economic well-being dimension increases additional layer to the model, thus increasing the number of parameters to be estimated and contributing to its complexity.
<table>
<thead>
<tr>
<th>Variable/dimension</th>
<th>Economic well-being</th>
<th>Capability</th>
<th>Economic inclusion</th>
<th>Political inclusion</th>
<th>Civic/cultural inclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adequacy of income for food</td>
<td>0.644 **</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adequacy of income for other expenses</td>
<td>0.68 **</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income per capita</td>
<td>0.441 **</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consumption per capita</td>
<td>0.617 **</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean educational attainments for adults</td>
<td></td>
<td>0.677 **</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Householder's educational attainment</td>
<td></td>
<td>0.586 **</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equality in educational opportunity</td>
<td></td>
<td>0.441 **</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall nutrition of household members</td>
<td></td>
<td>0.659 **</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Access to financial resources</td>
<td></td>
<td></td>
<td>0.698 **</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Householder's occupation: executive and professional</td>
<td></td>
<td></td>
<td>0.427 **</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% employed in unregistered businesses</td>
<td></td>
<td></td>
<td>-0.375 **</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Householder's occupation: Armed forces, farming, labor, and machine operation</td>
<td></td>
<td></td>
<td>-0.724 **</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** * p<.05; ** p<.01
<table>
<thead>
<tr>
<th>Variable/dimension</th>
<th>Economic well-being</th>
<th>Capability</th>
<th>Economic inclusion</th>
<th>Political inclusion</th>
<th>Civic/cultural inclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean voting frequency</td>
<td>0.390 **</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participation in partisan activities</td>
<td>0.508 **</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Informal talk about policies</td>
<td>0.759 **</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contacts from political leaders</td>
<td>0.531 **</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communication with political leaders</td>
<td>0.833 **</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational memberships per capita</td>
<td>0.369 **</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participation in social activities</td>
<td>0.462 **</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participation in joint activities</td>
<td>0.665 **</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Social networks and ties</td>
<td>0.288 **</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Poverty Dimensions:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capability</td>
<td>0.948 **</td>
<td></td>
<td>0.882 **</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Civic/cultural inclusion</td>
<td></td>
<td></td>
<td>0.801 **</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic well-being</td>
<td></td>
<td></td>
<td></td>
<td>0.637 **</td>
<td></td>
</tr>
</tbody>
</table>

N = 610; X² = 778; DF = 180; X²/DF = 4.317; RMSEA = 0.074; CFI = 0.945; TLI = 0.936

*Note:* *p< .05; **p<.01
4.2 Empirical Analysis

Table 4.2 R-squared estimates (Kathmandu)

<table>
<thead>
<tr>
<th>Indicators/dimensions</th>
<th>Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adequacy of income for food</td>
<td>0.415</td>
</tr>
<tr>
<td>Income per capita</td>
<td>0.194</td>
</tr>
<tr>
<td>Consumption per capita</td>
<td>0.38</td>
</tr>
<tr>
<td>Adequacy of income for other expenses</td>
<td>0.462</td>
</tr>
<tr>
<td>Mean educational attainments for adults</td>
<td>0.458</td>
</tr>
<tr>
<td>Overall nutrition of household members</td>
<td>0.434</td>
</tr>
<tr>
<td>Householder's educational attainment</td>
<td>0.343</td>
</tr>
<tr>
<td>Equality in educational opportunity</td>
<td>0.195</td>
</tr>
<tr>
<td>Householder's occupation: executive and professional</td>
<td>0.182</td>
</tr>
<tr>
<td>% employed in unregistered businesses</td>
<td>0.141</td>
</tr>
<tr>
<td>Householder's occupation: Armed forces, farming, labor, and machine operation</td>
<td>0.524</td>
</tr>
<tr>
<td>Access to financial resources</td>
<td>0.488</td>
</tr>
<tr>
<td>Mean voting frequency</td>
<td>0.152</td>
</tr>
<tr>
<td>Participation in partisan activities</td>
<td>0.258</td>
</tr>
<tr>
<td>Informal talk about policies</td>
<td>0.576</td>
</tr>
<tr>
<td>Contacts from political leaders</td>
<td>0.282</td>
</tr>
<tr>
<td>Communication with political leaders</td>
<td>0.694</td>
</tr>
<tr>
<td>Organizational memberships per capita</td>
<td>0.136</td>
</tr>
<tr>
<td>Participation in social activities</td>
<td>0.213</td>
</tr>
<tr>
<td>Participation in joint activities</td>
<td>0.443</td>
</tr>
<tr>
<td>Social networks and ties</td>
<td>0.083</td>
</tr>
</tbody>
</table>

Dimensions:

| Economic well-being                              | 0.900    |
| Economic inclusion                               | 0.778    |
| Political inclusion                              | 0.642    |
| Civic/cultural inclusion                         | 0.406    |

Note: The model does not report R-squared estimate for capability as it appears to be an exogenous dimension, estimated without the effect of other dimensions

4.2.3 Indicators of Poverty Dimensions

While which indicators are best suited to measure the poverty dimensions is debatable, I use the model output presented in Table 4.1 together with exploratory factor analysis results\(^{10}\) to identify the appropriateness of the

\(^{10}\) The exploratory factor analysis helps identify principal components based on their factor loadings on the hypothesized latent factor. This is an additional tool I
indicators used. First, the model overwhelmingly supports the commonality among income, consumption, and adequacy of income for food and for non-food expenses thus forming a common factor, economic well-being. The subjective and relative notions of poverty have been more influential in estimating economic well-being as indicated by the higher loadings of subjective views indicators focusing on the adequacy of income for food and non-food expenses, followed by per capita consumption. This shows that people tend to bring subjective and relative views to the issue of economic well-being by comparing their needs and resource-fulness with those of others in the society (Wagle 2007c). The subjective and relative notions of economic well-being also are highly interconnected in Kathmandu as what one thinks is adequate depends on her or his relative condition in the society. Interestingly, income plays the least influential role, perhaps uncovering that how much income people have is not highly consistent with their consumption or subjective views in this context. Where as the traditional approaches exclusively focus on income as the indicator of economic well-being, the findings here do not support it. In reality, one must recognize the fact that income does have some role in driving consumption and thus economic well-being. Even though the data included estimates of household wealth, the model did not support their inclusion as one of the statistically significant indicators of economic well-being.

Second, results indicate with a high degree of confidence that householder’s educational attainment, average educational attainment, overall nutritional status as revealed by householders, and equality of educational opportunities between boys and girls have significant commonalities forming the common factor, capability. While indicators have significant roles in estimating capability, education and nutrition were more influential of all. For one, they are highly related as a more educated person typically strives to maintain good nutrition. Next, more educated people may also have tended to maintain good nutrition because their ability to make more money enables them to do so. Of the two education variables used in the model, the mean educational attainment turned out to be more important than the householder’s educational attainment obviously because of the potential intra-household educational inequalities in this society with the

---

11 Income and consumption were used in their natural log to accommodate their nonlinear loadings.

12 Self-respect and occupational prestige were not used due to data unavailability where as the use of caste discrimination was not supported by the data.
new generation considerably ahead of the previous generation in pursuing higher education. The indicator measuring the gender equality in educational opportunity as expressed by the respondents may have included measurement error due perhaps to the fact that people’s views tended to reflect the ‘group think’ and did not portray the actual practice in their homes. In the same vein, appropriate proxies of the caste and ethnic discrimination were not available in the data. The estimates of the perceived discrimination around these issues did not stand out to be important partly because of a large measurement error.13

Third, the model suggests that the statistically significant loadings on economic inclusion came from being in executive and professional occupations, being in farm, armed forces, labor, or machine operations occupations,14 percent members employed in unregistered businesses, and access to financial resources.15 The access to financial resources and especially being in the armed forces, farming, labor, and machine operation occupations play more influential roles in measuring economic inclusion. The access to formal financial institutions indicates the choices one has in terms of carrying out the economic activities that are more desirable. In a context where many people aspire to start their own business to quickly transform their financial situation, a lack of access to credit poses a serious challenge. Interestingly and yet unsurprisingly, the latter has the negative influence because these occupations do not provide high economic payoffs and thus

13 These estimates were based on the questions on the respondent’s opinion on the degree of caste and ethnic discrimination in their neighborhood, a question which may have been understood differently across respondents with different backgrounds.

14 Albeit seemingly arbitrary, these four occupational categories have much in common with regard to their economic incentives and social recognition. Households with householders in these occupations tend to make substantially lower incomes—on average NRS32,000 annual per capita compared to NRS57,000 for all other households. While armed forces and especially labor occupations have much lower payoffs—on average associated households having annual per capita income of NRS28,000 and NRS14,000 respectively—households associated with all four occupations included in this combined category had annual per capita income of less than NRS50,000. These occupations also indicate low prestige jobs in this urban center, where, unlike in much of the country, people are engaged in a wide variety of occupations. Conversely, the executive and professional occupation, another category included in the analysis, carries considerably higher prestige and higher economic payoff—on average the associated households have annual per capita income of NRS60,000 compared to NRS50,000 for all other households.

15 The use of occupational prestige was not possible due to the unavailability of data.
are not particularly desirable in Nepal. Having employment in unregistered businesses also loads negatively because of its informal sector character providing small economic payoffs. Albeit with a positive loading, being in executive and professional occupation does not turn out to be highly influential in estimating economic inclusion in Kathmandu.

Fourth, the model provided statistical confidence for the commonalities among voting frequency, participation in political activities, participation in informal policy talks, visits from political leaders, and communication with political leaders in estimating political inclusion. Results indicate the primacy of holding political information and especially communicating with political leaders. While participating in different kinds of political activities is important, those with more information and regular contacts with political leaders are in a politically more advantaged position with ability to influence policies. Interestingly, electoral participation has the least commonality with other indicators indicating that voting is not an important factor to make one more or less political integrated.

Fifth, the model suggests that average organizational memberships, participation in social activities, participation in joint activities, and social networks and ties significantly load on the civic/cultural inclusion. Participation in joint activities has the highest loading indicating that those active in the community are considered more civically/culturally integrated in society. While organizational membership has a relatively smaller loading, which may have been because of its measurement in per capita terms thus large households causing one’s per capita memberships to attenuate, people active in carrying communitywide activities may also show their presence in organizational activities at the local level. Participation in social and cultural functions had a moderate loading where as maintaining social networks and ties exhibited the smallest loading in this urban area with significant migrant population who lack meaningful attachments with others in the community.

4.2.4 Multidimensionality of Poverty

The evidence of a strong relationship among the five poverty dimensions supports the multidimensionality hypothesis, indicating that these dimensions are in fact all embedded in poverty. The model supports that each of the five dimensions has some causal effects on some or all other poverty dimensions (see Table 4.1 and Fig. 4.1). Two sets of statistics are important to speak of the nature and magnitude of the relationships among poverty dimensions. First, the correlation statistics presented in Table 4.3 conspicuously suggest that all five dimensions are highly and positively
related with each other. This positive relationship is consistent with the multidimensional poverty definition, suggesting that a household’s relatively large score on one dimension reduces its overall probability of being poor. The considerably large correlation estimates corroborate that when households are more capable, they tend to have higher levels of economic well-being as well as more meaningful participation in economic activities. Economic inclusion and economic well-being, which are related by definition, report a large correlation estimate. Similarly, households engaging more in civic/cultural activities tend to participate more in political activities. Albeit smaller in comparison, other estimates are also considerably large, manifesting high relevance of the multidimensional model.

Second, as presented in Table 4.4, some poverty dimensions confer large effects on other dimensions signifying their influential roles in determining the latter. Since the effect of one dimension on another can take direct and indirect paths, testing effects-hypothesis should heed total effects. The total standardized effects reported in Table 4.4 take into account the direct and indirect effects, representing the total change in one poverty dimension score due to a unit change in another dimension score. These effects are also significant at a very high confidence level since the underlying loadings and other coefficients reported in Table 4.1 are all significant at 99 percent. The capability dimension appears to affect all other dimensions, whereas none affects it. Although capability is relatively highly correlated with every other dimension, this unidirectional effect highlights the role of capability in driving all other poverty dimensions. Consistent with the human capital and capability poverty arguments (Becker 1964; Lucas 1988; Sen 1992; Tilak 2002), the total standardized effect of capability on economic inclusion and especially economic well-being is almost one, indicating that one standard deviation change in the former will lead to almost one standard deviation change each in the latter. One of the most telling stories this model suggests is that education, which is at the core of all indicators of capability, is also at the epicenter of being able to meaningfully participate in the labor market and the larger economy and deriving adequate income and consumption to escape poverty.

16 These effects are computed directly from $\eta = B\eta + \zeta$ by using $[I - B]^{-1}$ where I is the identity matrix and excluding the $\zeta$ vector which cannot be estimated precisely after all. Also, note that the effect of one dimension on itself is not necessarily unitary in Table 4.4 as some of the effect systems become dynamic, rather than static, involving multiple iterations of effect determination.
Table 4.3 Correlations among poverty dimensions (Kathmandu)

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Economic well-being</th>
<th>Capability</th>
<th>Economic inclusion</th>
<th>Political inclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Well-being</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capability</td>
<td>0.948</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic Inclusion</td>
<td>0.837</td>
<td>0.882</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>Political Inclusion</td>
<td>0.511</td>
<td>0.484</td>
<td>0.503</td>
<td>1.000</td>
</tr>
<tr>
<td>Civic/Cultural Inclusion</td>
<td>0.637</td>
<td>0.604</td>
<td>0.533</td>
<td>0.801</td>
</tr>
</tbody>
</table>

Note: Correlations produced by the model

Overshadowed by these large effects are the relatively smaller effects of capability on political inclusion and civic/cultural inclusion. Again most crucial is the contribution education makes to a household’s participation in political as well as civic/cultural activities. While the finding regarding the primacy of education is self-explanatory, the level of education appears to have been determined independently of any other poverty dimension. Command over resources and political or civic/cultural ties, for example, do not ensure higher levels of educational attainment. Partly, this is a precursor for the role of demographic factors in determining one’s capability necessitating more complex models (Wagle 2004).

Table 4.4 Total standardized effects of poverty dimensions (Kathmandu)

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Economic well-being</th>
<th>Capability</th>
<th>Economic inclusion</th>
<th>Political inclusion</th>
<th>Civic/cultural inclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Well-being</td>
<td>1.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.510</td>
<td>0.637</td>
</tr>
<tr>
<td>Capability</td>
<td>0.948</td>
<td>1.000</td>
<td>0.882</td>
<td>0.484</td>
<td>0.604</td>
</tr>
<tr>
<td>Economic Inclusion</td>
<td>0.000</td>
<td>0.000</td>
<td>1.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Political Inclusion</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>1.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Civic/cultural Inclusion</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.801</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Note: This table is presented as a transpose of the B matrix

Economic well-being is another dimension that substantially affects political and civic/cultural inclusion. This reaffirms the thesis that one needs a good command over economic resources to be able to meaningfully participate in political and social activities, which especially in contexts like this provide a license to hold political power and social recognition. No doubt, the unidirectional effect of economic well-being on political and civic/cultural inclusion and the complete absence of effects between eco-
4.2 Empirical Analysis

Economic inclusion and political and civic/cultural inclusion do not sustain the argument that one needs political and social ties to secure a job or to engage in other economically lucrative activities (Grootaert 2002; Opel 2000). But some reverse causation might be at work signifying that the command over resources is a prerequisite with its dominant role in determining one’s participation in politics and civil society.

Table 4.4 also records a relatively large effect of civic/cultural inclusion on political inclusion. The finding that those participating more in civic, cultural, and associational activities also tend to participate more in political activities including partisan activities, political contacts, and policy discussions is consistent with suggestions elsewhere (Almond and Verva 1963; Krishna 2002; Putnam 1993, 2000; Wagle 2006b). Those who stay tuned for information in their communities also tend to be conscious of political issues surrounding them, thus encouraging their fuller participation. But the model does not detect any reverse causation that political inclusion might have with civic/cultural inclusion, perhaps indicating a contrast between the relatively nascent political culture and the rich social and civic culture this society is historically accustomed to, even after the restoration of multiparty democracy in 1990.

4.2.5 Poverty Measurement Outcomes

The use of a comprehensive operational definition suggests that identifying poverty status would involve looking at one’s scores on all poverty dimensions. The summary statistics provided in Table 4.5 indicate that where all scores have a starting value of zero, their distributions are different. Large distributions suggest that household statuses on a particular poverty dimension are highly unequal whereas smaller ones indicate less inequality. Particularly noticeable is the distribution of the economic inclusion scores, which are highly concentrated, indicating their smaller variance, compared to the relatively large variance of the economic well-being

---

17 The model yielded normalized factor scores with a mean of zero, which were then transformed to ensure comparability with zero starting values. To keep the overall distribution intact, this transformation was performed, using \( \eta_{di} = \eta_{di} - \eta_{di}^{\text{min}} \), where \( \eta_{di} \) is the transformed score, \( \eta_{di}^{\text{est}} \) was the estimated score, and \( \eta_{di}^{\text{min}} \) was the lowest score in the distribution.

18 Partly, however, these distributions depend on the distributions of the indicators whose scales were used to measure the respective factor scores. In case of the economic well-being dimension, for example, the values are expressed in Nepali currency, where as the capability scores are measured in years of schooling.
scores. Since income and consumption, the two major indicators of economic well-being, have wider distributions, the finding that the degree of economic well-being is more highly dispersed is reasonable. But the coefficients of variation serve as evidence that the levels of capability and social inclusion are more equally distributed than the levels of economic well-being perhaps suggesting that the society is getting increasingly more unequal economically. Interestingly, economic inclusion scores are the least unequally distributed of all social inclusion (sub)dimensions corroborating that small differences in economic inclusion can lead to vast differences in economic resources, a trend typical of developing economies due to increasingly divergent economic payoffs.

Table 4.5 Summary statistics on poverty dimensions (Kathmandu)

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Mean</th>
<th>Standard deviation</th>
<th>Coefficient of variation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Well-being</td>
<td>35070.61</td>
<td>21769.44</td>
<td>0.62</td>
<td>0.00</td>
<td>136671.90</td>
</tr>
<tr>
<td>Capability</td>
<td>8.36</td>
<td>2.59</td>
<td>0.31</td>
<td>0.00</td>
<td>14.67</td>
</tr>
<tr>
<td>Economic Inclusion</td>
<td>2.35</td>
<td>0.61</td>
<td>0.25</td>
<td>0.00</td>
<td>3.64</td>
</tr>
<tr>
<td>Political Inclusion</td>
<td>0.58</td>
<td>0.23</td>
<td>0.39</td>
<td>0.00</td>
<td>1.24</td>
</tr>
<tr>
<td>Civic/Cultural Inclusion</td>
<td>0.42</td>
<td>0.15</td>
<td>0.36</td>
<td>0.00</td>
<td>0.91</td>
</tr>
</tbody>
</table>

These factor scores serve as very useful resources to identify the locus of each household on different poverty dimensions. Identifying poverty status of households included in the analysis essentially invokes controversies, however. Unlike with income, consumption, or educational attainment, for example, these scores do not manifest some immediately sensible units of measurement. Since the poverty dimension scores produced by the model are error-free, they are most useful to identify relative position of individuals, as many have advocated in poverty research (Brady 2003; Fuchs 1965, 1967; Townsend 1979). But these detailed estimates also allow identification of the absolute poverty statuses. What poverty threshold to use, for example, has to do with who will be categorized as the poor and even more importantly how many will be categorized as the poor, with enormous implications on the breadth and depth of policy measures needed to address poverty. This is also a point where whether to use absolute, relative, or subjective notions of poverty needs to be specified, the decision on which can be necessarily political.

While researchers use absolute, relative, or subjective approaches to establish poverty standards, the absolute approach dominates most of the
poverty measurement (Citro and Michael 1995; Haveman 1987; Wagle 2006a). Although the absolute approach is used to identify income or consumption poverty standards, one can make an argument that the same can be applied to identify capability or social inclusion poverty standards (Wagle 2002). In an attempt to identify alternative ways to use the produced scores, I use some existing poverty estimates in Kathmandu. The assumption that between 10 and 30 percent of the population is poor is supported by the existing research using income and consumption, thus making them highly plausible lower and upper bounds for the absolute poverty estimates. In addition to this absolute approach, a relative approach can be used to establish some cutoff points that are relative to the given distribution. While poverty thresholds are developed as 50 or 60 percent of the median income or consumption, I use the conservative estimate of 50 percent to identify poverty status across all poverty dimensions.

Assumed for illustrative purposes, this is not to imply that the inequality of capability and social inclusion will be identical to that of economic well-being. Societies may be economically, capabilistically, or social inclusively more or less equal compared to poverty dimensions other than the one under consideration. Again, this begs a difficult question of how to define poverty using each of the dimensions, which, albeit partly indicated by the distribution of dimension scores, is linked with the absolute versus relative concepts of poverty.

The national poverty rate suggested by the CBS (1997) using consumption-income poverty standard was slightly over 40 percent in 1996, the revised estimate for which was 30 percent in 2003/2004 (CBS 2005; World Bank 2006). The poverty incidence for Kathmandu and similar urban areas, however, was estimated to be 10 percent in 2003 (CBS 2005; World Bank 2006). Using the official consumption poverty line, the survey data used here also show a consistent result with a poverty headcount ratio of over nine percent. Application of the international poverty line ($1/day) shows a different picture with a poverty rate of 39 percent in 1995 and that of 24 percent in 2003/2004 for the entire country (World Bank 2006). Other studies using income, consumption, and relative poverty standards have suggested different estimates ranging from 19 to 42 percent specifically for the city (Wagle 2006c). This broad range of poverty estimates suggested for Kathmandu testifies to the fact that poverty measurement can be highly controversial especially given a paucity of reliable data and given the difficulty to derive objectively determined poverty thresholds. Although the suggested range falls between 10 and 40 percent, I see using 10 and 30 percent estimates to comprise two reasonable alternatives for Kathmandu.

Again, controversy can arise regarding the application of this criterion for all poverty dimensions as they have different distribution patterns. Given its widespread use, however, it is safe to assume that the resourcefulness of those at the 50 percent of the median value would be minimally needed to avoid poverty.
As indicated in Chapter 3, households that are considered poor in at least one of the poverty dimensions will be categorized as poor. The multidimensional poverty status constitutes the aggregate result of one’s poverty status using each of the unidimensional poverty spaces. Since each unidimensional space serves as a valid yardstick to determine the resources needed to secure acceptable quality of life, poverty in one single space provides a sufficient basis to categorize one as the ‘poor.’ Clearly, the above operationalization treats the social inclusion as one of the three poverty dimensions in the final step of determining the multidimensional poverty status. Since social inclusion in itself is a multidimensional construct including economic, political, and civic/cultural inclusion dimensions, deriving the social inclusion poverty status involves an arbitrary but highly plausible assumption: A social inclusion poor would manifest poverty on at least two of the three social inclusion dimensions. The three poverty dimensions that I refer to, hereinafter, would indicate the economic well-being, capability, and social inclusion dimensions.

Given the poor or non-poor status of households, further aggregation would detail the intensity of poverty experienced by households. As outlined in Chapter 3, households experiencing poverty on all three dimensions are considered ‘abject poor’ as they are deeply entrenched in poverty, with minimal likelihood of escaping it. Households experiencing poverty on two dimensions are considered ‘very poor,’ as they are at risk of being the abject poor but are slightly better positioned. All other households that are poor on only one of the three dimensions are considered ‘poor,’ which are relatively better off with much higher chance of escaping poverty.

Table 4.6 provides poverty estimates that are used to derive multidimensional poverty outcomes using the 10 and 30 percent absolute targets and also using the relative criterion. Interestingly, estimates are highly different between the absolute and relative criteria. While economic well-being poverty estimates are comparable, other poverty estimates from the relative criterion have tended to deviate especially reflecting on the overall distribution of the poverty dimension scores. Because economic inclusion scores are more equally distributed, the size of the poverty population on this dimension appears to be much smaller.

The last row of Table 4.6 reports the poverty incidence as indicated by the three social inclusion (sub)dimensions. It is interesting to observe that

---

22 This might be closer to the concept of chronic poverty defined as being consistently poor for over five years, which is in vogue among some poverty researchers (Hulme and Shepherd 2003; Hulme et al. 2001; Metha and Shah 2003). Although the focus of these researchers is basically on the time dimension, the concept of abject poverty goes beyond, incorporating its multiple dimensions.
at the 10 percent poverty target, the incidence of social inclusion poverty would be close to nine percent where as that following the 30 percent target would be something close to 30 percent. This is indicative of the fact that the social inclusion poverty incidence following this comprehensive multidimensional process is quite similar to the one involving a ‘less stringent’ multidimensional process. The outcome is not quantitatively different from the one involving aggregation of the three sets of social inclusion scores in order to categorize the bottom percentiles as the social inclusion poor. The result may have been qualitatively different, however, in terms of determining who is categorized as the poor. While there would be seven additional households categorized as the poor following the less stringent, 10 percent target, for example, it would categorize 19 households differently (result not shown). With the 30 percent target, on the other hand, the less stringent process would categorize 33 households differently, of which three would have been additional households to be categorized as the poor. Also, the measurement outcomes appear to be more different at lower estimates (10 percent target) of poverty than at higher estimates (30 percent target). Regarding the relative criterion, moreover, the size of the social inclusion poor turns out to be close to 10 percent despite the smaller size of the economic inclusion poor, which is because of the assumption that those poor on two of the three social inclusion dimensions would be considered the social inclusion poor.

Table 4.6 Unidimensional poverty incidence (Kathmandu)
(Values are percentages)

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Absoute poverty</th>
<th></th>
<th>Relative poverty</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10% target</td>
<td>30% target</td>
<td></td>
</tr>
<tr>
<td>Economic Well-being poor</td>
<td>10.00</td>
<td>30.00</td>
<td>17.70</td>
</tr>
<tr>
<td>Capability poor</td>
<td>10.00</td>
<td>30.00</td>
<td>7.87</td>
</tr>
<tr>
<td>Economic Inclusion poor</td>
<td>10.00</td>
<td>30.00</td>
<td>4.75</td>
</tr>
<tr>
<td>Political Inclusion poor</td>
<td>10.00</td>
<td>30.00</td>
<td>9.02</td>
</tr>
<tr>
<td>Civic/Cultural poor</td>
<td>10.00</td>
<td>30.00</td>
<td>8.85</td>
</tr>
<tr>
<td>Social Inclusion poor(^\text{a})</td>
<td>8.95</td>
<td>29.51</td>
<td>7.70</td>
</tr>
</tbody>
</table>

\(^\text{a}\) Aggregate of the economic, political, and civic/cultural inclusion poverty incidence

Table 4.7 reports the final multidimensional poverty incidence following the absolute and relative criteria. It indicates that the application of this comprehensive definition along with 10 and 30 percent targets would result in categorization of between 14 and 39 percent of the households as
the poor in general with the relative criterion producing over 19 percent estimate. The 10 percent poverty target would lead to five percent of the households to be categorized as the abject poor, another five percent as the very poor, and over three percent as the poor. The 30 percent target would categorize over 21 percent as the abject poor, nine percent as the very poor, and another eight percent as the poor. The relative criterion would identify close to 10 percent as the poor, five percent as the very poor, and another five percent as the abject poor.

Table 4.7 Multidimensional poverty incidence (Kathmandu)
(Values are percentages)

<table>
<thead>
<tr>
<th>Poverty Categories</th>
<th>Absolute poverty</th>
<th>10% target</th>
<th>30% target</th>
<th>Relative poverty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-poor</td>
<td></td>
<td>86.56</td>
<td>60.49</td>
<td>80.8</td>
</tr>
<tr>
<td>Poor</td>
<td></td>
<td>3.28</td>
<td>10.00</td>
<td>9.67</td>
</tr>
<tr>
<td>Very Poor</td>
<td></td>
<td>4.92</td>
<td>9.02</td>
<td>4.92</td>
</tr>
<tr>
<td>Abject Poor</td>
<td></td>
<td>5.25</td>
<td>20.49</td>
<td>4.59</td>
</tr>
</tbody>
</table>

This uncovers important properties of the construction of multidimensional poverty. It is interesting to observe that an estimate close to the actual target percent used to identify the unidimensional poverty status turned out to be either the abject poor or the very poor under the absolute poverty targets. Even more interesting is the difference in percentage households that were found to be abject poor under the absolute poverty targets as a threefold increase in poverty target increased the size of the abject poor almost fourfold, with less than proportional changes in the sizes of the very poor and poor households. This uncovers the relatively vulnerable position of a number of households that may be barely well-off when the more stringent poverty target is applied. A less stringent poverty target such as the 30 percent, on the other hand, tends to considerably expand the size of the households in multidimensional poverty. It should not be surprising given the multidimensional nature of poverty in which a strong likelihood exists of scoring less well on at least one of the three dimensions of poverty. A quite well-to-do household with wide access to material resources may not be highly capable or highly integrated in society. This can happen, for example, when the level of economic well-being is derived using inherited property without much development of human capital. It is also plausible that this same household cannot meaningfully participate in economic, political, and civic/cultural activities. After all, lagging behind in one or even two of the three poverty dimensions is likely
in rapidly changing societies where how one secures and maintains relational resources can be highly unpredictable.

In case of the relative poverty, the number of households in multidimensional poverty is slightly larger than the number of the economic well-being poor despite the fact that the size of the social inclusion poor and especially the capability poor is much smaller. Also interesting are the sizes of the multidimensional poor that are quite the opposite in order from those of the absolute poverty targets with a small size of the abject poor, followed by the very poor, and then the poor. Partly, it is the relatively smaller sizes of the capability and social inclusion poor that have produced a small size of the abject poor. Perhaps more important, however, is the process of determining the unidimensional poverty statuses, which may have led to relatively less consistent unidimensional poverty measurement outcomes. This is also supported by the large size of the poor households—that is almost the size of the very poor and the abject poor combined—as they may have been poor on one of the three types of resources, most likely the material resources.

What is surprising, however, is the concentration of the poverty population in the abject poor category. If faring well on the three (or even five) dimensions of poverty were random as it frequently happens in rapidly changing societies, the outcome of the 30 percent poverty target would register large increases in the very poor and especially the poor categories. The outcome in fact is quite the opposite substantiating the relevance of the multidimensional approach to poverty with consistent results, when absolute poverty targets are applied. Results are not only consistent across larger poverty targets, perhaps they are even more accurate uncovering the phenomenon that slightly better positioned people are equally if not more highly likely to manifest poverty on different types of resources. Application of the relative criterion does not necessarily support this conclusion, however, perhaps because of the procedural differences in identifying the poverty status.

How different are the poverty measurement outcomes following the three approaches used here? Table 4.8 provides the relevant correlation estimates showing a high degree of similarity between the absolute 10 percent target and relative criterion followed by that between the absolute 30 percent target and relative criterion. Although the absolute 10 percent target and relative criterion employ two distinct methods to assess the unidimensional poverty status, a large similarity obtained in measurement outcomes has to do with the use of similar cutoff points on the same poverty dimension scores. Especially surprising, however, is the correlation of this high magnitude despite over six percentage points difference in the size of the unidimensional non-poor. Since the absolute 10 and 30 percent
targets are highly different in poverty estimates, a weaker correlation between them is justified. These two approaches, in fact, lead to measurement outcomes that are much more dissimilar than those involving the relative criterion.

**Table 4.8 Correlations among poverty measurement outcomes (Kathmandu)**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Absolute poverty</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10% target</td>
</tr>
<tr>
<td>Absolute: 10% Target</td>
<td>1.00</td>
</tr>
<tr>
<td>Absolute: 30% Target</td>
<td>0.59</td>
</tr>
<tr>
<td>Relative</td>
<td>0.93</td>
</tr>
</tbody>
</table>

### 4.2.6 Characteristics of Unidimensional Poverty

Table 4.9 reports the unidimensional poverty incidence for different demographic groups. These estimates are based on the application of the 10 and 30 percent poverty targets on the set of each poverty dimension scores. First results show that economic well-being poverty incidence is heavily concentrated in lower middle and lower castes, non-Hindu and especially Muslim followers, migrants, households with widowed householders, and households from the east location. Larger households and those with multiple children also appear to be especially vulnerable. These findings are in line with a large body of the international literature on the explanations of income or consumption poverty (de Wit 1996; Razavi 1999; Rocha 1995; Townsend 1979; UNDP 2000a; Wagle 2002, 2004; Wilson 1996; World Bank 2001).
Table 4.9 Unidimensional poverty among different demographic groups (Kathmandu)

(Values are percentages of the total)

<table>
<thead>
<tr>
<th>Demographic groups</th>
<th>Total (N)</th>
<th>Absolute poverty</th>
<th>Relative poverty</th>
<th>Economic well-being</th>
<th>Social capability</th>
<th>Economic well-being</th>
<th>Social capability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>10% target</td>
<td>30% target</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Economic</td>
<td>Social</td>
<td>Economic</td>
<td>Social</td>
<td>Economic</td>
<td>Social</td>
</tr>
<tr>
<td></td>
<td></td>
<td>well-being</td>
<td>capability</td>
<td>well-being</td>
<td>capability</td>
<td>well-being</td>
<td>capability</td>
</tr>
<tr>
<td>Total (n)</td>
<td>610</td>
<td>61</td>
<td>61</td>
<td>56</td>
<td>183</td>
<td>183</td>
<td>178</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 to 30</td>
<td>108</td>
<td>6.48</td>
<td>6.48</td>
<td>9.26</td>
<td>27.78</td>
<td>27.38</td>
<td>28.70</td>
</tr>
<tr>
<td>30 to 60</td>
<td>441</td>
<td>11.34</td>
<td>11.11</td>
<td>9.52</td>
<td>30.84</td>
<td>30.84</td>
<td>29.71</td>
</tr>
<tr>
<td>60 and above</td>
<td>61</td>
<td>6.56</td>
<td>8.20</td>
<td>6.56</td>
<td>27.87</td>
<td>27.87</td>
<td>26.23</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>550</td>
<td>10.18</td>
<td>9.82</td>
<td>9.27</td>
<td>30.18</td>
<td>30.36</td>
<td>28.55</td>
</tr>
<tr>
<td>Female</td>
<td>60</td>
<td>8.33</td>
<td>11.67</td>
<td>8.33</td>
<td>28.33</td>
<td>26.67</td>
<td>35.00</td>
</tr>
<tr>
<td>Caste</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper</td>
<td>169</td>
<td>7.69</td>
<td>8.28</td>
<td>8.88</td>
<td>28.40</td>
<td>27.22</td>
<td>28.99</td>
</tr>
<tr>
<td>Upper-middle</td>
<td>132</td>
<td>6.82</td>
<td>6.06</td>
<td>7.58</td>
<td>33.33</td>
<td>31.82</td>
<td>30.30</td>
</tr>
<tr>
<td>Lower-middle</td>
<td>282</td>
<td>9.93</td>
<td>9.93</td>
<td>7.45</td>
<td>28.01</td>
<td>29.08</td>
<td>25.53</td>
</tr>
<tr>
<td>Lower</td>
<td>4</td>
<td>25.00</td>
<td>25.00</td>
<td>50.00</td>
<td>50.00</td>
<td>75.00</td>
<td>50.00</td>
</tr>
<tr>
<td>Others</td>
<td>23</td>
<td>43.48</td>
<td>43.48</td>
<td>34.78</td>
<td>43.48</td>
<td>43.48</td>
<td>65.22</td>
</tr>
<tr>
<td>Birthplace</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban area born</td>
<td>279</td>
<td>5.38</td>
<td>5.38</td>
<td>2.87</td>
<td>24.01</td>
<td>23.30</td>
<td>21.51</td>
</tr>
<tr>
<td>Rural area born</td>
<td>316</td>
<td>13.29</td>
<td>13.29</td>
<td>13.92</td>
<td>35.13</td>
<td>35.76</td>
<td>35.13</td>
</tr>
<tr>
<td>Nativity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Native to Kathmandu</td>
<td>238</td>
<td>5.46</td>
<td>5.04</td>
<td>1.26</td>
<td>24.79</td>
<td>24.37</td>
<td>21.43</td>
</tr>
<tr>
<td>Migrant</td>
<td>372</td>
<td>12.90</td>
<td>13.17</td>
<td>14.25</td>
<td>33.33</td>
<td>33.60</td>
<td>34.14</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never married</td>
<td>56</td>
<td>3.57</td>
<td>3.57</td>
<td>7.14</td>
<td>12.50</td>
<td>12.50</td>
<td>16.07</td>
</tr>
<tr>
<td>Married</td>
<td>520</td>
<td>10.38</td>
<td>10.19</td>
<td>9.23</td>
<td>31.54</td>
<td>31.54</td>
<td>30.00</td>
</tr>
<tr>
<td>Widowed</td>
<td>34</td>
<td>14.71</td>
<td>17.65</td>
<td>11.76</td>
<td>35.29</td>
<td>35.29</td>
<td>38.24</td>
</tr>
</tbody>
</table>

*aRefers to household characteristics*
<table>
<thead>
<tr>
<th>Demographic groups</th>
<th>Total (N)</th>
<th>Economic well-being</th>
<th>Economic capability</th>
<th>Economic social inclusion</th>
<th>Social well-being</th>
<th>Social capability</th>
<th>Social social inclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sector</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Core</td>
<td>109</td>
<td>2.75</td>
<td>2.75</td>
<td>7.34</td>
<td>19.27</td>
<td>20.18</td>
<td>15.60</td>
</tr>
<tr>
<td>Center</td>
<td>94</td>
<td>5.32</td>
<td>5.32</td>
<td>4.26</td>
<td>20.21</td>
<td>21.28</td>
<td>17.02</td>
</tr>
<tr>
<td>East</td>
<td>207</td>
<td>15.46</td>
<td>15.94</td>
<td>10.63</td>
<td>37.68</td>
<td>37.20</td>
<td>40.10</td>
</tr>
<tr>
<td>North</td>
<td>108</td>
<td>8.33</td>
<td>8.33</td>
<td>9.26</td>
<td>33.33</td>
<td>31.48</td>
<td>28.70</td>
</tr>
<tr>
<td>West</td>
<td>92</td>
<td>13.04</td>
<td>11.96</td>
<td>13.04</td>
<td>32.61</td>
<td>33.70</td>
<td>17.39</td>
</tr>
<tr>
<td>Religion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hindu</td>
<td>482</td>
<td>7.68</td>
<td>7.47</td>
<td>7.26</td>
<td>28.63</td>
<td>28.63</td>
<td>27.59</td>
</tr>
<tr>
<td>Buddhism</td>
<td>105</td>
<td>18.10</td>
<td>19.05</td>
<td>16.19</td>
<td>38.10</td>
<td>38.10</td>
<td>35.24</td>
</tr>
<tr>
<td>Muslim</td>
<td>9</td>
<td>55.56</td>
<td>55.56</td>
<td>44.44</td>
<td>55.56</td>
<td>55.56</td>
<td>77.78</td>
</tr>
<tr>
<td>Other</td>
<td>14</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Household Size</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One</td>
<td>12</td>
<td>8.33</td>
<td>8.33</td>
<td>8.33</td>
<td>16.67</td>
<td>16.67</td>
<td>25.00</td>
</tr>
<tr>
<td>Two</td>
<td>56</td>
<td>3.57</td>
<td>5.36</td>
<td>8.93</td>
<td>17.86</td>
<td>17.86</td>
<td>26.79</td>
</tr>
<tr>
<td>Three</td>
<td>98</td>
<td>10.20</td>
<td>10.20</td>
<td>7.14</td>
<td>28.57</td>
<td>30.61</td>
<td>37.76</td>
</tr>
<tr>
<td>Four</td>
<td>124</td>
<td>10.45</td>
<td>9.70</td>
<td>12.69</td>
<td>33.58</td>
<td>32.09</td>
<td>31.34</td>
</tr>
<tr>
<td>Five</td>
<td>136</td>
<td>9.56</td>
<td>9.56</td>
<td>6.62</td>
<td>32.35</td>
<td>23.53</td>
<td>26.47</td>
</tr>
<tr>
<td>Six</td>
<td>75</td>
<td>13.33</td>
<td>13.33</td>
<td>12.00</td>
<td>34.67</td>
<td>37.33</td>
<td>29.33</td>
</tr>
<tr>
<td>Seven or more</td>
<td>99</td>
<td>11.11</td>
<td>11.11</td>
<td>8.08</td>
<td>28.28</td>
<td>28.28</td>
<td>23.23</td>
</tr>
<tr>
<td>Children under 18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>203</td>
<td>2.96</td>
<td>3.45</td>
<td>4.43</td>
<td>16.26</td>
<td>16.26</td>
<td>23.15</td>
</tr>
<tr>
<td>One</td>
<td>157</td>
<td>8.28</td>
<td>7.64</td>
<td>5.73</td>
<td>29.30</td>
<td>31.21</td>
<td>28.03</td>
</tr>
<tr>
<td>Two</td>
<td>165</td>
<td>10.91</td>
<td>10.91</td>
<td>11.52</td>
<td>40.00</td>
<td>38.79</td>
<td>31.52</td>
</tr>
<tr>
<td>Three or more</td>
<td>85</td>
<td>28.24</td>
<td>28.34</td>
<td>22.35</td>
<td>44.71</td>
<td>43.53</td>
<td>41.18</td>
</tr>
<tr>
<td>Number of children under 6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>429</td>
<td>8.62</td>
<td>8.62</td>
<td>7.93</td>
<td>25.87</td>
<td>25.64</td>
<td>28.90</td>
</tr>
<tr>
<td>One</td>
<td>137</td>
<td>9.49</td>
<td>9.49</td>
<td>10.22</td>
<td>39.42</td>
<td>40.15</td>
<td>27.74</td>
</tr>
<tr>
<td>Two</td>
<td>31</td>
<td>22.58</td>
<td>22.58</td>
<td>19.35</td>
<td>41.94</td>
<td>41.94</td>
<td>29.03</td>
</tr>
<tr>
<td>Three or more</td>
<td>13</td>
<td>30.77</td>
<td>30.77</td>
<td>15.38</td>
<td>38.46</td>
<td>38.46</td>
<td>53.85</td>
</tr>
</tbody>
</table>
There are some interesting anomalies especially in terms of age, caste, and household size, however. Contrary to the perception that poverty is likely among young and old, for example, this analysis shows higher concentration of poverty among the middle aged (30–60 years). These results do not control for the effects of other variables as in multiple regression, as they may coincide with smaller households, never married householders, and no children, especially applicable to young householders. Yet, a lower concentration of economic well-being poverty is justified in this society with extended family practices and strong familial support to care for the old. Further, consistent with the notion of extended family practices, this analysis supports that poverty rate tends to decline among large households particularly beyond seven members (Pradhan and Ravallion 2000; Wagle 2007c). Because large households have the opportunity to contain productive members and to pool resources from a number of sources, the access to material resources tends to be higher among these households. The case of caste too is unpredictable applying the three different criteria, as the upper caste has a large poverty concentration following the relative criterion, which is different from those using other criteria. When the relative poverty cutoff is over 50 percent higher than that for the 10 percent target, poverty incidence among the upper caste Brahmans increases over three times, suggesting that a large percentage of this group is not considerably better off than other castes.

Second, similar dynamics appear to be operational in terms of the concentration of capability poverty in Kathmandu. The economic well-being and capability poverty incidences appear to be not only similar but even identical among some groups demarcated by most of the characteristics using the absolute approach. While the process involved in determining the unidimensional poverty status of households was independent of one another depending entirely on the scores that households obtain, this great similarity should not be highly surprising given the large effects of capability on economic well-being, identified earlier. These characteristics of the capability poor, including middle age, Buddhist and Muslim religion, lower caste, foreign born, migrant, widowed, east and west locations, large households, and those with two or more children, are also consistent with what has been suggested in different contexts (Bista 1991; Checchi and Lucifora 2000; de Wit 1996; Sen 1992, 1999; Tilak 2002; UNDP 2000a, 2002; UNDP/Nepal 1998, 2002; Wagle 2002). In case of the relative criterion, on the other hand, while the demographic characteristics are largely similar, the poverty incidence appears to be much lower. Especially interesting is the concentration of the capability poor among the upper caste group, as one’s belonging to it raises the chance of being poor almost two-fold.
Third, although the incidence of social inclusion poverty is somewhat different from the previous two incidences, there is consistency at a broader level. Part of the discrepancy stems from the fact that the effective absolute poverty target in case of social inclusion dimension was lower—9.18 and 29.18 instead of 10 and 30 percents respectively. The relative poverty incidence, however, is much different in case of the access to relational resources when compared to the access to material resources, as is the case of the inner strength or resources. This also has implications for the degree of concentration with some demographic groups manifesting lower and others manifesting higher poverty incidence. While this form of poverty is fairly uncommon among the households with never married householders, it is drastically less concentrated among the households with widowed householders. Similar dynamics apply to households with large numbers of children and the east and west locations, thus increasing their likelihood of being the social inclusion poor. There are interesting observations regarding poverty incidence among households with male and female householders, both of which appear to attenuate in case of social inclusion poverty with almost identical poverty concentrations. Especially noteworthy is the very low poverty incidence among households with householders native to Kathmandu that although lower across all three forms of poverty appears to be almost negligible on social inclusion poverty. Because large households already adhere to shared, communal principles, the smaller rate of social inclusion poverty among them should not be surprising especially beyond the household of size of six members.

Table 4.9 also reveals an interesting pattern of poverty incidence while moving from the 10 to 30 percent target. A less stringent target of 30 percent, for example, drastically changes the rate of poverty among some groups where as its does not increase the estimate by much in other cases. In the west location, for example, the poverty rates of close to 10 percent dramatically accelerated beyond 30 percent in all three poverty dimensions. Similarly, while the small number of representation does not lend enough support to the conclusion, those from the lower caste, other religions or non-caste background, and with foreign-born householders could expect comparable poverty rates despite changing the poverty criterion. The case of the upper caste is interesting, however, since their poverty rates are much more pronounced in case of the relative measures of material and inner strength and resources. There are some anomalies especially in case of small groups and subgroups and data support the observation that the poverty incidences are not highly predictable across different poverty dimensions.

How different are these poverty rates compared to those from the traditional approach? Table 4.10 reports poverty incidences based on the same
data using the official consumption poverty for Kathmandu. The overall poverty headcount ratio of nine percent warrants comparison with the results following the 10 percent target more appropriate. Poverty rates are higher among the lower castes, north location, Buddhist religion, and larger households particularly with children. While these concentrations are largely consistent with the results from the unidimensional approaches, quite different poverty rates are observed for many demographic groups including other religion, foreign-born, widowed, and north sector. More specifically, results following the official poverty line suggest all of these groups (except for the north sector) to have lower poverty incidences indicating that they do not have inadequate consumption. On the contrary, the unidimensional poverty rates suggest these groups to have much higher poverty incidences. It is interesting that they have higher poverty incidences from the economic well-being standpoint and not from the consumption standpoint. The difference, however, lies in the more influential role of the subjective views of respondents in estimating economic well-being, thus including the comparative notion of consumption into the equation.

Because the non-Hindu caste, other religion, and foreign born characteristics are related to each other, this set of population tends to be different from the ‘mainstream’ population in Kathmandu manifesting a much more privileged position. The widowed group, however, is not worse off consumption-wise and yet shows higher poverty incidences on all poverty dimensions owing perhaps to their subjective mindsets, dignity, and social status in this orthodox Hindu society. Quite opposite is the case of the north sector exhibiting higher concentration of the consumption poor and yet lower concentration of the unidimensional poor, perhaps uncovering an economically more polarized picture of the neighborhoods.

There are also sizable differences between the poverty concentrations suggested by the three criteria. While the average rates are consistent, none of the groups has poverty rates higher than 27 percent, following the official poverty line and yet they are as high as 75 percent, with many cases higher than 30 percent, following the unidimensional approaches. It is clear that these more comprehensive unidimensional approaches help magnify the differences across the poor with different characteristics, thus providing a more realistic understanding of the poverty situation.
Table 4.10 Poverty among different demographic groups (Kathmandu)
(Estimates based on the official poverty line and consumption data)\(^a\)

<table>
<thead>
<tr>
<th>Demographic groups</th>
<th>% poor</th>
<th>Demographic groups</th>
<th>% poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>9.02</td>
<td>Age(^b)</td>
<td></td>
</tr>
<tr>
<td>Gender (^b)</td>
<td></td>
<td>18 to 30</td>
<td>8.18</td>
</tr>
<tr>
<td>Male</td>
<td>9.12</td>
<td>30 to 60</td>
<td>9.82</td>
</tr>
<tr>
<td>Female</td>
<td>8.06</td>
<td>60 and above</td>
<td>4.76</td>
</tr>
<tr>
<td>Caste (^b)</td>
<td></td>
<td>Religion</td>
<td></td>
</tr>
<tr>
<td>Upper</td>
<td>4.07</td>
<td>Hindu</td>
<td>8.02</td>
</tr>
<tr>
<td>Upper-middle</td>
<td>5.26</td>
<td>Buddhism</td>
<td>14.02</td>
</tr>
<tr>
<td>Lower-middle</td>
<td>11.90</td>
<td>Muslim</td>
<td>11.11</td>
</tr>
<tr>
<td>Lower</td>
<td>40.00</td>
<td>Other</td>
<td>0.00</td>
</tr>
<tr>
<td>Non-Hindu caste</td>
<td>3.42</td>
<td>Household Size</td>
<td></td>
</tr>
<tr>
<td>Birthplace (^b)</td>
<td></td>
<td>One</td>
<td>0.00</td>
</tr>
<tr>
<td>Foreign-born</td>
<td>0.00</td>
<td>Two</td>
<td>1.75</td>
</tr>
<tr>
<td>Urban area born</td>
<td>6.69</td>
<td>Three</td>
<td>3.03</td>
</tr>
<tr>
<td>Rural area born</td>
<td>11.49</td>
<td>Four</td>
<td>12.41</td>
</tr>
<tr>
<td>Nativity (^b)</td>
<td></td>
<td>Five</td>
<td>10.22</td>
</tr>
<tr>
<td>Native to Kathmandu</td>
<td>7.05</td>
<td>Six</td>
<td>10.67</td>
</tr>
<tr>
<td>Migrant</td>
<td>10.26</td>
<td>Seven or more</td>
<td></td>
</tr>
<tr>
<td>Marital Status (^b)</td>
<td>3.51</td>
<td>Children under 18</td>
<td>12.75</td>
</tr>
<tr>
<td>Never married</td>
<td></td>
<td>None</td>
<td>2.91</td>
</tr>
<tr>
<td>Married</td>
<td>9.85</td>
<td>One</td>
<td>4.43</td>
</tr>
<tr>
<td>Widowed</td>
<td>5.71</td>
<td>Two</td>
<td>11.49</td>
</tr>
<tr>
<td>Sector</td>
<td></td>
<td>Three or more</td>
<td>22.71</td>
</tr>
<tr>
<td>Core</td>
<td>4.42</td>
<td>Number of children under 6</td>
<td></td>
</tr>
<tr>
<td>Center</td>
<td>3.19</td>
<td>None</td>
<td>7.00</td>
</tr>
<tr>
<td>East</td>
<td>10.80</td>
<td>One</td>
<td>16.82</td>
</tr>
<tr>
<td>North</td>
<td>13.76</td>
<td>Two</td>
<td>27.27</td>
</tr>
<tr>
<td>West</td>
<td>10.87</td>
<td>Three or more</td>
<td>0.00</td>
</tr>
</tbody>
</table>

\(^a\) Although the survey data were collected in 2002/2003, the 2003/2004 official poverty line of NRs. 11,056 per capita (CBS 2005) was without any inflationary adjustments.

\(^b\) Refers to householder characteristics.

4.2.7 Characteristics of Multidimensional Poverty

One of the most important value added the multidimensional approach provides is by more accurately rank-ordering the observations and categorizing them according to the degree of poverty experienced. The result that over 13, 37, and 19 percent of the households would fall in different categories of multidimensional poverty following the absolute and relative criteria used here is not in itself very valuable. More valuable, instead, would be the demographic characteristics that manifest higher concentration of multidimensional poverty, which do not vary considerably across the absolute and relative criteria used.
Table 4.11 provides a detailed breakdown of the poverty incidence among different groups of households. Results show that abject poverty is heavily concentrated among the lower caste, non-Hindu households and households with foreign-born householders and those with three or more children under 18 years of age and perhaps of those two or more under 6 years. Other groups with high, though relatively milder, concentration of abject poverty include female, upper caste, rural area born, and migrant householders with large household sizes especially containing greater than three members. Although the data suffer from inadequate representation of these households, these findings are overwhelmingly robust that the extreme form of multidimensional poverty disproportionately falls on these groups, irrespective of the poverty criteria used. These are also in line with the minority views of poverty substantiating their socially disadvantaged positions. While some of these same groups also demonstrate higher concentration of the very poor and/or the poor, these findings are somewhat less consistent across the three approaches.

Age does not appear to show a very conspicuous pattern in terms of the likelihood of being more severely poor. There is some evidence that the middle-aged group (30–60) may be less likely to be non-poor with its poverty rate running slightly higher. Yet, this does not consistently hold across the three criteria. Where as the middle-aged group has higher concentration in the abject and very poor categories, this appears to be compensated by a slightly higher concentration of the other age groups in the poor category. These suggestions are consistent with the seniority-based, extended family culture of Nepal. In this society, for example, the growing age is not just a matter of more experience and maturity but instead an advantage over a more extensive resources that the offspring are likely to generate. Yet, the older age group (60 and above) tends to demonstrate higher concentration of poverty when moving beyond the 10 percent target or using the relative criterion. The relatively younger age group (18–30) is also no worse off reflecting the fact that these perhaps smaller households without children are capable of avoiding poverty. As reported in Table 4.9, for example, poverty rates were lower among these households with respect to all three dimensions, a strong manifestation that this young age group has profited from the rapidly changing socioeconomic structures in Nepal.
Table 4.11 Multidimensional poverty among different demographic groups (Kathmandu)
(Values are percentages of the total)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Total (N)</th>
<th>Absolute poverty</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>Relative poverty</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>10% target</td>
<td>30% target</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Poor</td>
<td>Very poor</td>
<td>Abject poor</td>
<td>Poor</td>
<td>Very poor</td>
<td>Abject poor</td>
<td>Poor</td>
<td>Very poor</td>
<td>Abject poor</td>
</tr>
<tr>
<td>Total (n)</td>
<td>610</td>
<td>21</td>
<td>26</td>
<td>35</td>
<td>47</td>
<td>55</td>
<td>129</td>
<td>59</td>
<td>30</td>
<td>28</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 to 30</td>
<td>108</td>
<td>4.63</td>
<td>1.85</td>
<td>4.63</td>
<td>4.63</td>
<td>3.70</td>
<td>24.07</td>
<td>9.26</td>
<td>2.78</td>
<td>3.70</td>
</tr>
<tr>
<td>30 to 60</td>
<td>441</td>
<td>3.40</td>
<td>4.76</td>
<td>6.35</td>
<td>8.84</td>
<td>10.66</td>
<td>20.41</td>
<td>9.52</td>
<td>5.67</td>
<td>4.99</td>
</tr>
<tr>
<td>60 and above</td>
<td>61</td>
<td>1.64</td>
<td>4.92</td>
<td>3.28</td>
<td>6.56</td>
<td>4.92</td>
<td>21.31</td>
<td>11.48</td>
<td>3.28</td>
<td>3.28</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>550</td>
<td>3.82</td>
<td>4.00</td>
<td>4.18</td>
<td>7.09</td>
<td>9.64</td>
<td>20.91</td>
<td>9.82</td>
<td>5.09</td>
<td>4.55</td>
</tr>
<tr>
<td>Female</td>
<td>60</td>
<td>0.00</td>
<td>6.67</td>
<td>5.00</td>
<td>13.33</td>
<td>3.33</td>
<td>23.33</td>
<td>8.33</td>
<td>3.33</td>
<td>5.00</td>
</tr>
<tr>
<td>Caste</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper</td>
<td>169</td>
<td>3.55</td>
<td>7.10</td>
<td>7.69</td>
<td>6.51</td>
<td>7.10</td>
<td>30.18</td>
<td>8.88</td>
<td>8.28</td>
<td>5.92</td>
</tr>
<tr>
<td>Upper-middle</td>
<td>132</td>
<td>4.55</td>
<td>2.27</td>
<td>3.79</td>
<td>9.85</td>
<td>12.12</td>
<td>20.45</td>
<td>10.61</td>
<td>3.03</td>
<td>3.03</td>
</tr>
<tr>
<td>Lower-middle</td>
<td>282</td>
<td>2.13</td>
<td>2.48</td>
<td>3.55</td>
<td>6.38</td>
<td>8.87</td>
<td>14.18</td>
<td>8.51</td>
<td>3.55</td>
<td>2.48</td>
</tr>
<tr>
<td>Lower</td>
<td>4</td>
<td>25.00</td>
<td>0.00</td>
<td>25.00</td>
<td>0.00</td>
<td>50.00</td>
<td>25.00</td>
<td>50.00</td>
<td>0.00</td>
<td>25.00</td>
</tr>
<tr>
<td>Others</td>
<td>23</td>
<td>8.70</td>
<td>17.39</td>
<td>26.09</td>
<td>21.74</td>
<td>0.00</td>
<td>43.48</td>
<td>17.39</td>
<td>8.70</td>
<td>26.09</td>
</tr>
<tr>
<td>Birthplace</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreign-born</td>
<td>5</td>
<td>0.00</td>
<td>0.00</td>
<td>26.67</td>
<td>13.33</td>
<td>0.00</td>
<td>33.33</td>
<td>6.67</td>
<td>0.00</td>
<td>26.67</td>
</tr>
<tr>
<td>Urban area born</td>
<td>279</td>
<td>1.43</td>
<td>3.94</td>
<td>1.43</td>
<td>8.24</td>
<td>10.39</td>
<td>13.26</td>
<td>8.60</td>
<td>3.94</td>
<td>0.36</td>
</tr>
<tr>
<td>Rural area born</td>
<td>316</td>
<td>5.38</td>
<td>4.75</td>
<td>4.75</td>
<td>6.96</td>
<td>8.23</td>
<td>27.53</td>
<td>10.76</td>
<td>6.01</td>
<td>7.28</td>
</tr>
<tr>
<td>Nativity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Native to Kathmandu</td>
<td>238</td>
<td>0.42</td>
<td>3.78</td>
<td>1.26</td>
<td>9.24</td>
<td>11.76</td>
<td>12.61</td>
<td>8.82</td>
<td>2.52</td>
<td>0.84</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never married</td>
<td>56</td>
<td>3.57</td>
<td>0.00</td>
<td>3.57</td>
<td>7.14</td>
<td>3.57</td>
<td>8.93</td>
<td>3.57</td>
<td>1.79</td>
<td>1.79</td>
</tr>
<tr>
<td>Married</td>
<td>520</td>
<td>3.65</td>
<td>4.42</td>
<td>5.77</td>
<td>7.69</td>
<td>9.81</td>
<td>21.92</td>
<td>10.38</td>
<td>5.19</td>
<td>4.62</td>
</tr>
<tr>
<td>Widowed</td>
<td>34</td>
<td>0.00</td>
<td>8.82</td>
<td>8.82</td>
<td>8.82</td>
<td>5.88</td>
<td>29.41</td>
<td>8.82</td>
<td>5.88</td>
<td>8.82</td>
</tr>
</tbody>
</table>

*Refers to household characteristics
<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Total (N)</th>
<th>10% Target</th>
<th>20% Target</th>
<th>Relative poverty</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Poor</td>
<td>Very poor</td>
<td>Abject poor</td>
</tr>
<tr>
<td><strong>Sector</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Core</td>
<td>109</td>
<td>4.59</td>
<td>0.00</td>
<td>2.75</td>
</tr>
<tr>
<td>Center</td>
<td>94</td>
<td>1.06</td>
<td>2.13</td>
<td>3.19</td>
</tr>
<tr>
<td>East</td>
<td>207</td>
<td>1.93</td>
<td>9.18</td>
<td>7.25</td>
</tr>
<tr>
<td>West</td>
<td>92</td>
<td>5.43</td>
<td>3.26</td>
<td>8.70</td>
</tr>
<tr>
<td><strong>Religion</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hindu</td>
<td>482</td>
<td>3.53</td>
<td>2.90</td>
<td>4.36</td>
</tr>
<tr>
<td>Buddhism</td>
<td>105</td>
<td>2.86</td>
<td>9.52</td>
<td>10.48</td>
</tr>
<tr>
<td>Muslim</td>
<td>9</td>
<td>11.11</td>
<td>22.22</td>
<td>33.33</td>
</tr>
<tr>
<td>Other</td>
<td>14</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td><strong>Household Size</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One</td>
<td>12</td>
<td>8.33</td>
<td>8.33</td>
<td>0.00</td>
</tr>
<tr>
<td>Two</td>
<td>56</td>
<td>5.36</td>
<td>3.57</td>
<td>1.79</td>
</tr>
<tr>
<td>Three</td>
<td>98</td>
<td>2.04</td>
<td>5.10</td>
<td>5.10</td>
</tr>
<tr>
<td>Four</td>
<td>134</td>
<td>5.97</td>
<td>2.24</td>
<td>7.46</td>
</tr>
<tr>
<td>Five</td>
<td>136</td>
<td>2.21</td>
<td>5.15</td>
<td>4.41</td>
</tr>
<tr>
<td>Six</td>
<td>75</td>
<td>4.00</td>
<td>5.33</td>
<td>8.00</td>
</tr>
<tr>
<td>Seven or more</td>
<td>99</td>
<td>1.01</td>
<td>4.04</td>
<td>7.07</td>
</tr>
<tr>
<td><strong>Children under 18</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>203</td>
<td>2.96</td>
<td>2.46</td>
<td>0.99</td>
</tr>
<tr>
<td>One</td>
<td>157</td>
<td>3.18</td>
<td>4.46</td>
<td>3.18</td>
</tr>
<tr>
<td>Two</td>
<td>165</td>
<td>4.24</td>
<td>3.64</td>
<td>7.27</td>
</tr>
<tr>
<td>Three or more</td>
<td>85</td>
<td>3.53</td>
<td>9.41</td>
<td>18.82</td>
</tr>
<tr>
<td><strong>Number of children under 6</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>429</td>
<td>3.96</td>
<td>4.66</td>
<td>3.96</td>
</tr>
<tr>
<td>One</td>
<td>137</td>
<td>2.92</td>
<td>2.19</td>
<td>7.30</td>
</tr>
<tr>
<td>Two</td>
<td>31</td>
<td>0.00</td>
<td>3.23</td>
<td>19.35</td>
</tr>
<tr>
<td>Three or more</td>
<td>13</td>
<td>0.00</td>
<td>15.38</td>
<td>15.38</td>
</tr>
</tbody>
</table>
Although households with female householders tend to have slightly more concentration of the abject poor, there is not sufficient evidence to claim that female headed households are more likely than male headed households to be in multidimensional poverty. Because women’s roles as daughters, wives, and mothers are historically dominated by sons, husbands, and fathers in this society, research has sown that a lack of male leadership in household works in the disadvantage for the entire household (Acharya 1994; Acharya et al. 1999). Yet, this analysis does not provide highly consistent estimates across the three criteria, thus consequently providing similar poverty estimates for the male and female headed households. This is not unsurprising, however, given the coverage of female-headed households that is largely insufficient in the data and the fact that this analysis does not uncover any intra-household issues, which are relevant to examine gender disparities.

The multidimensional poverty status greatly varies by caste and religious orientation. Caste and religion are two important sources of disadvantage and discrimination in this pre-dominantly Hindu society. Data show that the rates of poverty among the households following religions other than Hinduism are exceedingly greater across all poverty categories with far greater chance for them to be in abject poverty. Although the Hindu predominance suggests that these groups may be excluded in important social and cultural processes, their high concentration in the abject poor further indicates that the effect of religion is not limited to social exclusion. Additionally, the finding that Buddhist households are far more likely than Hindu households to be poor comes as a surprise given a very high tolerance between the two religions in this birth country of the Buddha. Yet, the fact that households are Buddhist may separate them in terms of the types of lives they value and thus leading to differential access to resources.

The caste factor, however, does not appear to be highly relevant to predicting multidimensional poverty outcomes. As expected, the lower, untouchable caste manifests the highest concentration of poverty. But the finding that the upper two castes and especially the Brahmin caste have much higher poverty concentration than the lower middle caste goes against the popular conviction in this caste-rigid society. For one, the number of lower caste households covered in the survey is almost negligi-

---

23 Acharya et al. (1999), for example, find similar empirical results and admit that ‘feminization of poverty’ which is real in Nepal is hard to prove with household level data. The argument relates to intra-household disparities between men and women, leading to similar resources and yet dissimilar levels of individual welfare.
ble just like those with other religious denominations. It is precisely the process of exclusion with their historically untouchable status that has played the pivotal role in leading to a higher poverty incidence among them (Bista 1991; UNDP/Nepal 1998, 2002). Data suggest that even the more recent developments with the legal and constitutional ban on caste-based discrimination have not translated into the measurable social advantage for the lower castes. What follows is the poverty incidence among the top two castes, which is much higher than that among the lower-middle caste. While the slightly higher concentration of poverty among the upper middle caste than the lower middle caste is justified given the increasingly aggressive roles of the latter in different economic and professional activities, the case of Brahmins lagging behind these two castes does not support the thesis that they have had considerable power over the state affairs thus leading to better economic and social advantage (Bista 1991; Pokharel 2001).

Nativity and birthplace appear to make a difference in the way people can escape poverty. For one, the demarcation is in terms of whether or not the householder is migrant with migrants more likely to be poor than those native to Kathmandu. In this city with high incidence of property inheritance and extensive social and educational infrastructures, nativity provides an important economic and social advantage as the native people tend to be better equipped with the necessary knowledge, skills, and social networks. But the fact that this native-migrant demarcation tends to attenuate as the poverty target goes higher suggests that the problem is more pronounced among the more ‘entrenched’ poor than the ‘transient’ poor. At the same time, the economically and socially advantaged position of the native people in Katmandu renders the poverty rates much more different following the relative criterion. Next, there is further demarcation between those born in urban and rural areas in Nepal as well as those born abroad. While small in number, households with householders born in foreign countries, almost all of whom were born in India, have the highest rate of poverty with most if not all of them falling in the abject poor category. One can expect them to be relatively well off economically, as they tend to be in some lucrative professions especially in retail businesses, and yet to demonstrate higher degrees of social exclusion. These estimates, however, suggest that a considerable number of them have extremely lower access to resources. Households with householders born in rural areas are also more likely to be poor. This difference postulates the advantage that those born

---

24 This is primarily the reason for no poverty among them following the official poverty line (Table 4.10).
in urban areas have with generally higher levels of infrastructures and opportunities to invest in human capital.

Marital status of householders is another feature that sets the poor and non-poor apart. The never married have the lowest poverty incidence followed by the married. Because households with never married householders include single person households and those with young householders, their lower poverty rates following the 10 percent target and especially the relative criterion indicates that they are much better off than the other two groups. Moreover, households with widowed householders tend to be more likely than those with married householders not only to be in poverty but to be in abject poverty. Although poverty incidence is similar between these two types of households, the presence of widowed householders tends to make households particularly vulnerable to abject poverty. Widowhood is more likely among women in this patriarchal society where women do not enjoy equal social status and power and a sudden loss of spouse tends to produce more severe economic and social shocks to households with lower social status as well as lower economic resources to mobilize (Amis 1994; Amis and Rakodi 1994; Baulch and Hoddinott 2000; Chambers 1997; Lustig 2000).

There are large differences in poverty incidence by residential location. This city has undergone an enormous structural transformation during the past few decades with massive influx of population from almost every part of the country. While certain neighborhoods especially with native population have remained largely intact throughout the period, recent migrants have tended to reside in peripheral areas thus contributing to a major real estate boom. The core sector with neighborhoods inhabiting mostly native, Newar population and especially the center sector signifying the emerging commercial and high price residential area exhibit consistently lower poverty incidence. Following these is the relatively new, residentially vibrant north sector boasting the more wealthy, business people and professionals migrated not only from countryside but those returning from abroad. The west and especially east constitute the sectors with a very high incidence of poverty across all three criteria. Relatively emerging sectors in the city, both accommodate those relocating from other urban and rural areas in the country with the east sector soliciting people from the eastern part of the country and the west welcoming those from the western parts of the country. But both have accommodated a large number of slum neighborhoods developed in public spaces inhabited by the landless with bleak physical and social infrastructure as well as a marginalized position to ask for them. The considerably higher poverty rates in these sectors are consistent with one’s expectation not only in terms of the overall poverty but even in terms of the estimates that are highly uniform across different categories of
As elsewhere in the developing world, the geographic concentration of poverty appears to be quite powerful in this city causing tremendous segregation in physical and social infrastructure as well as the overall quality of life (Beall 1997; Gertler and Rahman 1994; Gunatilleke et al. 1994; Khundker et al. 1994; Mills and Pernia 1994; Moser 1998; Oberai 1993; Rocha 1995; Taylor 1999; Wegelin 1994).

Finally, this analysis suggests mixed findings in terms of the role of household size and the number of children in determining the multidimensional poverty status. Although the poverty incidence and especially abject poverty is more concentrated among the larger and particularly medium-sized households between the sizes of three to six, the trend is not highly conspicuous. The overall multidimensional poverty incidence is between 10 and 17 percent following the 10 percent target, 25 and 43 percent following the 30 percent target, and 12–22 percent following the relative criterion. But the concentration of the poor is highly dispersed. While one expects large households to be more likely to be poor, studies focusing on the traditional economic approaches do not support this relationship in Kathmandu (Pradhan and Ravallion 2000; Wagle 2006a, 2007c). Contrary to these studies suggesting a negative relationship between household size and poverty, this analysis finds this relationship to be perhaps curvilinear with those in the middle of the household size distribution being more likely to be the poor in general and especially the abject poor.

The incidence of poverty is more predictable using the number of children, however. Estimates show that larger numbers of children lead to higher poverty incidence among households. Yet, this relationship is more consistent for the presence of children under 18 than that of children under 6. Having three or more children under 18, for example, considerably increases the poverty incidence thus making the household more likely to be abject poor. Having children under six perhaps linearly increases the likelihood of being poor but, just like the case of household size, the likelihood of being abject poor falls beyond two children. This may be a manifestation of the inability of the mothers of young or school aged children to meaningfully engage in paid work as well as in other outside activities. What may also be at play in this city still with influence of extended family households is the role of grand parents and other extended family members in taking care of children thus freeing mothers with young children for outside engagement.
4.3 Policy Implications

As elsewhere especially in the developing world, the government of Nepal emphasizes employment creation as the primary strategy for poverty alleviation. This is justified given that this poor country needs to accelerate its economic growth so that the benefits of growth will trickle down to the poor and everyone will be better off. The current economic liberalization initiative attempts to expand the economic activities by transforming the economy from its heavy reliance on agriculture to manufacturing, tourism, and services so that the resulting export led growth will create massive employment opportunities. Being at the epicenter of this transformation, together with massive population growth in the past few decades, Kathmandu has witnessed its own transformation with booming real estate, banking, carpet, garment, and other export led industries.

How to accelerate economic growth and how to expand the economy are important economic agendas for developing countries like Nepal. Yet, this analysis suggests that this economic expansion in itself may not be adequate to address the needs of the lowest sections of the society exuding desperate living conditions and vulnerable qualities of life. The analysis offers some important implications useful for researchers as well as policymakers in Kathmandu and Nepal in general. The remainder of this chapter discusses the value added of using the multidimensional approach to measure and analyze poverty in Nepal. It offers some policy implications for Kathmandu, paying special attention to the demographic characteristics of poverty and ways to improve the poor access to resources plaguing the great many households in the city and beyond.

4.3.1 Focusing Poverty

The household level micro-data from Kathmandu support the thesis that the multidimensional concept of poverty holds in this rapidly urbanizing city. Findings clearly substantiate that household poverty is a complex phenomenon shaped by the interplay of various poverty dimensions. Household statuses on the access to material, inner, and relational resources are largely conditioned by various indicators that determine the levels of economic well-being, capability, and economic, political, and civic/cultural inclusion. An improvement in the overall quality of life is impossible without improving one’s access to different types of resources, thus leaving enormous implications for future policy prescriptions.

Results indicate that the five poverty dimensions used and estimated in this analysis are sufficiently close to each other so that an improvement in
one dimension supports the improvement in another. Part of it constitutes a self-perpetuating process in which one action percolates into another thus improving the overall access to resources. At the same time, however, the relationships appear to be more complex involving a delicate cause and effect nexus between the dyads of poverty dimensions. The analysis supports, for example, that increased access to material resources enhances one’s civic/cultural integration in society which in turn supports political integration. An economically unstable group incapable of generating resources needed to sustain the livelihood makes less likely its meaningful integration into the mainstream society. Even from the standpoint of the state or the overall society, the material quality of life that economic resources help maintain serves as a strength so that the state and society cannot sideline or marginalize the affected people.

The role of inner strength or resources is even more central indicating that it truly initiates the process for generating economic resources needed to maintain material quality of life, which further bolsters access to relational resources. Because capability helps one to meaningfully engage in the labor market and other economic systems, the role of inner strength and resources in this context with very high functional illiteracy is to set the platform for further improvement in accessing other resources needed to secure human well-being. The primacy of the inner resources in determining the material and relational resources is justified given the inner strength that one needs to accomplish the things that matter the most. But the argument that social integration helps one attain inner strength as well as the material resources needed to secure a decent quality of life is not fully supported in Kathmandu. While the relational resources have their own constitutive values as being outcast or marginalized in this highly communitarian society can be disastrous to one’s economic and social mobility, why social integration does not empirically demonstrate some instrumental values is enigmatic. It is enigmatic especially because of the positive role of one’s social and political networks and the degree of political freedom enjoyed in determining economic integration as well as garnering the needed economic resources. But the findings provide a useful frame of reference for policymakers in Nepal that the policy emphasis ought to be on enhancing the inner resources, especially education, nutrition, and gender equality, together with expanding opportunities that bring the needed economic resources. Since opportunities alone are not sufficient to generate economic resources, as not all opportunities come with decent economic payoffs, it would be important to enact policies governing the incentives to which those taking up opportunities are entitled.

Findings conspicuously suggest that the policymakers ought to appropriately place the material and inner resources at the center of the entire
poverty debate. But what is it that needs to obtain the government’s policy priority? Education is always at the forefront of the inner resources as it enables one to broaden the freedom and choice to achieve valued functionings. While education can be both formal and informal as well as focused on expanding knowledge or skills, any form of education has the potential to make a real difference in a society with a very high illiteracy especially among females. A related policy is one on gender disparities, which can be minimized if not eradicated by pursuing policies aimed at effectively equalizing opportunities between boys and girls. Additionally, the analysis supports that meeting adequate nutrition is one indicator that differentiates those with higher inner strength and resources from those with lower. It may be an absolute indicator in societies still struggling to provide adequate nutrition but its role in enhancing other qualities of life suggests that the policies to alleviate poverty ought to include initiatives to meet the nutritional requirements. Partly, this can be well managed by educating the masses as nutrition depends on both the ability to afford and the ability to efficiently manage the resources for nutritional diet needed to maintain a healthy lifestyle.

Findings also suggest that the level of both income and consumption need to be adequate. There is nothing new in arguing that income needs to be increased for those earning meager amounts. But, in a society where virtually no direct income support or social safety net is available from the state, increasing income for the bottom strata of the population can occur only by increasing the minimum wage and/or by formalizing the informal sector activities that tend to provide lower wages. This is with the assumption that income is essential for consumption in this urban setting as elsewhere. Yet, perhaps even more fundamental to improving the access to material resources is by increasing its even more direct measure, consumption. It is especially when incomes are not adequate to meet the needed consumption that the state would have to provide extra support but the goal ought to be to increase consumption to a point that is customary in society. In this sense, people need to feel secure enough in meeting consumption so that they are truly emancipated from the psychological mindset of consumption inadequacy, enabling them to pursue other avenues for the overall quality of life.

Partly, relational resources signify a result of other dimensions of poverty such that policy measures used to address the lack of material and especially inner resources will get percolated. But the activities that are central to relational resources include labor market participation, access to financial resources, political information and activism, and civic/cultural activism. Different economic activities and employment are looked upon differently in society because they are viewed from certain social stereo-
types and more importantly they offer different payoffs. Narrowing the wage gaps between high and low paying jobs is important to remove the negative implications of pursuing certain economic activities. Given the highly patriarchal and clientelistic culture in Nepal, however, it would also be important to remove the barriers to accessing the needed financial resources. While financial institutions have massively expanded their business coverage over the past few decades in Kathmandu, they are still unavailable to a large segment of the population including women and those without physical assets to use as collateral. Policy measures are needed to regulate them so that these resources would be more widely accessible.

The civic/cultural and political inclusion appear to be highly interrelated with the former greatly affecting the latter. This corroborates the thesis that political inclusion may not occur in itself, for which civic/cultural inclusion can serve as an important impetus. Participation in social activities, memberships to organizations or groups, and maintaining social networks and ties are various ways civic/cultural inclusion can be enhanced. While one can argue that public policies cannot effectively address these issues, the government can introduce policies that encourage participation thereby making it easier to establish organizations, launch cooperative activities, and expand personal or professional ties with others. Emphasis on religious, cultural, and other community activities encourage people to take part in them. Removing social hierarchies such as caste and supporting multicultural and multiethnic cooperation can increase participation of the lower classes and ethnicities in social and cultural activities. Although political participation is better enhanced together with civic/cultural inclusion, policies can create an environment conducive to voter registration, voting, and organizing and taking part freely in political activities. Institutionalizing political freedom is important not only through constitutional provisions as is happening in Nepal today but by allowing to practice freedom without any reservation. Removing financial barriers to contesting and holding political positions, institutionalizing press freedom, and establishing a culture in which political leaders are truly accountable to the public are some ways to encourage broader political participation. Since part of the reason for increasing political apathy and disenchantment taking place in Nepal today is a lack of governmental and bureaucratic transparency, wider public access to political processes including policymaking and governmental operations can bring the public back in to the process of their own governance.
4.3.2 Targeting the Poor

The modern, globally interconnected and politically free world provides opportunities for people to realize their dreams. The tremendous growth in the physical and social infrastructures together with massive globalization efforts can greatly serve anyone seeking change. Modern nation states have been instrumental at providing equal opportunities so that those with reasonable drive for progress can make the difference. Yet, together with demographic identities come certain stereotypes with which people label one’s status and potential for progress. As Walzer (1983) argued decades ago, for example, what one ‘is,’ ‘has,’ and ‘does’ are all intricately interrelated with demographic identities greatly affecting what one can possibly do.

Findings from this analysis suggest that different demographic groups demonstrate different levels of unidimensional and multidimensional poverty in Kathmandu making the poverty status somewhat predictable using the key characteristics. Identifying who is likely to be poor and to what degree is enormously useful in policymaking. Because the poor can be accurately identified with their explicit ranking on the multidimensional space, policymakers can introduce policies that best address the needs of different categories of the poor and also target policy resources at specific groups of the poor.

Different categories of the unidimensional poor need different policy measures to improve their strength and resources. The economic well-being poor needing improvement in economic ability to acquire a decent level of consumption, for example, will be better off by obtaining assistance in order to enhance their economic ability not currently available in any form in Nepal. Even a direct state support to increase consumption can be helpful to improve the access to material resources, especially when people are unable to meet even the absolute basic needs. Though related, this will be quite different from enhancing the capability sets of the poor and expand the freedom enjoyed thus increasing the likelihood of achieving important functionings. Education, nutrition, and gender equality can play important roles in this process. The needs of the social inclusion poor are further different with policies needed to minimize the gaps in occupational prestige and payoffs, to make financial resources widely accessible, to protect basic political and social rights, and to encourage civic/cultural and political participation.

Findings suggest that, in Kathmandu, unidimensional poverty of all three forms is attached almost exclusively to households with lower caste, non-Hindu, India- or rural Nepal-born, migrant, or widowed households, and east location. It is also related with having two or more children. In
addition, the economic well-being poor tend to include larger percentage of households with middle aged, lower middle caste householders, and those with six members. Where as the capability poor also include large percentage of households with middle aged, lower-middle caste householders, and those with six or more members or one child less than six, the additional demographic characteristics of the social inclusion poor include west location. These characteristics partly depend on the specific approach used to measure poverty.

In this country with very fragile recordkeeping system, identifying poverty status of households can be highly challenging. While the government can impose specific eligibility requirements especially for the purpose of welfare and other supports, which are targeted at the specific groups, more effective strategy can be to introduce policies that permeate specific demographic groups. These demographic groups can also be easier to locate. In this vein, the demographic characteristics of the different types of unidimensional poor are slightly different with widely different likelihoods of being in poverty. But consistent with these findings, policy priorities of the government need to be on households with middle aged, lower caste, migrant especially India- and rural Nepal-born, and widowed householders and those with two or more children.

Identification of the specific multidimensional poverty status, which goes beyond a general poverty status and provides the characteristics of the abject poor, the very poor, and the poor, is even more relevant for policy purposes. Governments in poor countries like Nepal lack the resources needed to address all social problems including poverty. Even when they do, addressing the needs of a large segment of society at once will be either operationally infeasible or politically highly controversial. Often, governments espouse incremental approaches to solving policy problems with specific priorities. It is, therefore, important to know who is likely to fall in the category of the abject poor, being in the highest priority for reducing poverty. Estimated to be between five and 21 percent of the households, depending on which poverty target is used, this group lacks access to resources needed to acquire a decent quality of life and thus has the bleakest future for an improvement in living conditions.

Findings suggest that the abject poverty incidence is highly concentrated among households with lower caste, migrant, India- or rural Nepal-born, widowed, Muslim, and other-religion householders, those from the east or west locations, and those with either four or six members, or two or more children under 18. The government needs to focus on these demographic groups, as they tend to demonstrate consistently higher incidence of abject poverty. While some other groups also exude relatively higher concentration of the abject poor, they are less consistent. Most of these likelihoods
result from discriminatory practices that are prevalent in this highly hierarchical society. The case of female, lower caste, Muslim, and those embracing other religions is in point, for example, in which the dominant culture disallows meaningful participation in the economy, polity, or society, or puts formal and informal barriers to realizing economic and other resources central to avoiding poverty. Those from certain locations such as east and west and those with moderate household sizes and large numbers of children, on the other hand, reveal the geographic dynamics of neighborhoods and economic implications of the household composition. With a heavy concentration of migrants, the eastern and western parts of the city that have large, illegal, slum communities provide largely inadequate physical and social infrastructures. Because these parts attract migrants with inadequate economic endowments, whether it is their abject poor status that lands them there or it is their residential location that makes them abject poor is difficult to vindicate. Although not all from these locations are abject poor, policy resources need to be directed at improving the stock of physical and social infrastructure in these locations. Policies may also have to be directed at providing child care services to the working parents in lack of which many mothers of young children contemplating paid work may have been out of the labor market. Although more grown up children do not need child care services, the lack of after school programs or part time job opportunities obstructs the best use of their parents’ times.

Next priority for the government would be to address the needs of the very poor lacking access to resources on any two of the three types specified. This group faring much better in access to resources needs slightly less extensive policy resources to address its problems. Stated differently, this group is clearly on the verge of abject poverty as the households already fare poorly on two of the three types of resources. If they are in the poorest stratum on economic well-being, for example, they find it difficult to improve the quality of life no matter how meaningfully integrated they can be in society. The same holds true for households that may have fared relatively better on either inner or material resources if they exude inadequate levels of other resources. Yet, the fact that this group estimated to be between four and nine percent of the households depending on the measurement approach is sufficiently small in size so that the government may find their case more tractable from policy standpoint.

While there are some demographic groups defined by caste, marital status, location, household size, and number of children to exhibit higher concentration of the very poor, they are not highly consistent across different poverty criteria. At the same time, although the size of the very poor for these demographic groups greatly changes depending on the poverty
criteria, whether or not one will be very poor needs to fit in the equation of her or his poverty status. Just because one is not in the very poor category does not sufficiently indicate that he or she is either poor or non-poor. Though to a varying degree, the policy needs of the different categories of the poor will be similar depending on who they are and what demographic background they hold. It is for this precise reason that the issues of gender discrimination, the negative shock due to loss of spouse, locational differences, and presence of children are still relevant to designing policies to address the needs of the very poor.

The case of the poor is likely to draw the least priority of all as they exhibit better performance on any two of the three poverty dimensions. While this group is identified as the poor, the fact that it exhibits better position on two sets of resources suggests that the risks and vulnerabilities may not be that high. People may have been in that status only ephemerally, for example, due to some minor shocks, change in the family composition, career change, migration, or other short-term phenomena. An obvious example can be an educated person who may be poor for being temporarily unemployed or facing a loss in business, or a loss of spouse that puts major strain on the material as well as relational resources. These groups therefore may obtain the lowest policy priorities. Even when policies are so designed to address their concerns, they will be much less extensive in both substance and resources. Although this group may not be small in size as somewhere between three and 10 percent of the households are estimated to be poor in Kathmandu depending on the poverty criteria used, the lowest policy priorities they get may never materialize in poor countries like Nepal.

The concentration of poverty too appears to be less predictable when it comes to this group especially following the 10 percent target. Yet, households with non-Hindu householders and those with one or two members are consistently more likely to be in this category. Of these the first demographic feature relates to the religious discrimination consistent with the case of the abject poor and very poor, where as the latter is new and interesting. An overwhelming proportion of one or two member households may have been those with young householders and those who are students especially from other parts of the country, indicating that they either lack economic resources or social integration needed to be categorized as the non-poor.
5.1 Overview

People from the developing world often think that the availability of enormous economic resources allows the United States to be poverty free with no one having to face the human miseries plaguing their own countries. They are right, as there exist sufficient mechanisms for people to avoid hunger, malnutrition, and other forms of absolute poverty. They are not entirely right, however, as over 12 percent of the population in this country lives below the highly stringent official poverty line, with over one fifth of the children growing in families officially designated as the poor and over 15 percent of the population lacking health insurance, a necessary but not sufficient condition for decent healthcare.

Problems are seen from different perspectives, however, with some blaming the poor, others blaming the government, and yet others blaming the market. Poverty incidence has tended to fluctuate with business cycles as well as with the policies that the Democratic or Republican governments put out with their own political agenda. For example, it fell considerably during the progressive era of the 1960s as well as the economic booms of the 1990s, both under the Democratic governance. It may be the ability of the economy to offer adequate incentives for people to remain employed or its ability to fund more generous handouts that reduced the incidence of poverty. Or, stories may even be different at different time periods. What has been consistent throughout the history, however, is the narrowly defined concept of poverty that has facilitated or obstructed the process of alleviating poverty. Because the definition of poverty has been invariably focused on lowness of income to meet basic consumption, poverty researchers have never looked outside of the box to understand what actually constitutes poverty and what causes and perpetuates it. While unprecedented developments have occurred toward more precisely measuring

---

1 Some of the contents of this chapter including many of the tables have appeared in Wagle (2008).
poverty and identifying one’s poverty status, the enterprise appears to have entirely missed the boat thus invoking alternative approaches.

This chapter applies the multidimensional approach to examine poverty in the United States. The goal is to test the multidimensional hypothesis of poverty in this context with historically low poverty incidence and yet rising economic inequality in the past few decades. Because the United States offers a very unique context to talk about poverty, especially because of its economically and politically dominant position in the world, this application of the multidimensional approach has a very high importance. If this approach exhibits a high relevance in this context, with very strong market mechanisms, that, together with the case of Nepal, will form the basis for its universal application. This chapter also discusses some policy implications of the empirical findings derived here.

5.2 Empirical Analysis

Since the 1930s and especially since the 1960s, the United States has witnessed an elevated level of research and policy attention to poverty and other burning social problems. Development of the official poverty line in the mid-1960s exemplifies the seriousness of the attempts to more systematically identify the poor applying some objective criteria and target policies to address their deprivation (Haveman 1987; Orshansky 1965). There have been continuous efforts to improve the way poverty is measured, with annual cost of living adjustments to the original official poverty lines and attempts to overhaul the poverty threshold being some examples (Citro and Michael 1995; Short 2001). Despite this, however, critics argue that the United States has historically paid less attention to inequality and more innovative approaches to understand poverty than its counterparts in the developed world (Brady 2003; Glennerster 2002; Townsend and Gordon 2000). Result, some contend, has been rising inequality and attenuated and also mis-targeted social policies with little concern for the way the genuinely poor sustain their lives (Glennerster 2002; Smeeding 2005).

Because poverty is essentially about accessing resources needed to attain a decent quality of life, conventional approaches cannot provide adequate basis for identifying poverty status and understanding its causes. Like other capitalist countries, the United States has never sighed away from increasing inequality even though international research suggests that inequality and poverty go hand-in-hand (UNDP 2006). The relative, subjective, and even absolute notions of poverty embraced in the European and other developed countries, however, have all tended to focus on
5.2 Empirical Analysis

inequality as a major source of information for poverty analysis. Indifferent over rising inequality, the standard policy prescription to cure poverty in the United States has rooted in the liberal principles directed at effecting faster economic growth in order to raise the tide to lift all boats. Although there are some short-term financial supports provided to the poor, the notion of welfare state is very limited (Esping-Andersen 1990, 1996) and the policies are never a part of larger sets of social policies attempting to holistically address poverty and other social ills. Massive inequality in access to the material as well as relational resources is serving as a powerful impetus to broadening the scope of poverty research. Since some see massive political inequality juxtaposing with rising economic inequality (APSA Task Force 2004; Bartels 2006; Jacobs and Skocpol 2006; Piven 2006), the notion of ‘political poverty’ is also emerging as a relevant topic for policy research.

While the rest of the world—including OECD countries—has moved well beyond the traditional absolutist approaches to poverty measurement, such alternative approaches have not garnered much interest in the United States. With such popular conservative expositions as the ‘culture of poverty,’ ‘welfare dependency,’ ‘deviant behavior,’ and ‘underclass’ so engrained in the everyday lexicon, more comprehensive analytical approaches have yet to convince policymakers (Brady 2003; Osberg 2000). Application of the positive freedom and social inclusion oriented approaches increasingly applied elsewhere is still remote from the United States policy research.

Measurement outcomes and policy analyses can only be as good as the data themselves. One must realize, as Summer (2004) accurately points out, that comprehensive analytical approaches such as multidimensional poverty necessitate more comprehensive data, which are often difficult to come by. The extensive amounts of longitudinal as well as cross sectional data collected in the United States, however, suggest enormous potential for comprehensive poverty research. As Osberg (2000), Glennerster (2002), and Brady (2003) observe, researchers in the United States need to broaden the scope of poverty research by utilizing the enormous stock of existing data. This would help to more accurately understand the complex mechanics of poverty.

It is not only the availability of data or the ability to collect and analyze data that invokes comprehensive measures of poverty. This country also

---

2 The UK government, for example, has shown commitment to systematically curtail social exclusion by adopting definitive policy measures (Davies 2005; Lister 2004; Social Exclusion Unit 2001). This has also been common in the rest of Europe (Glennerster 2002; Littlewood 1999; Mayes et al. 2001) as well as Canada (Crawford 2003; Toye and Infanti 2004).
has the resources needed to tackle poverty provided that the appropriate policy prescriptions are in place. Because the current policy prescriptions are based on misguided understanding of poverty, any form or amount of policy resource that is put in place to eradicate it will never see efficient usage. One must admit that poverty and especially its relative variant may never be eradicable. Yet, governments can do their best to improve the access to resources of those with miserable lives amidst the plenty. It is this direct relationship between the empirical findings and policy planning that gives appropriate meaning to the application of the multidimensional approach to poverty.

5.2.1 Dataset

Data for this application come from the 2004 General Social Survey (GSS) conducted by the National Opinion research Center. Since its inception in 1972, the GSS has constituted an important initiative providing quantitative data for researchers interested in socioeconomic and political dynamics in the American society. Conducted every year since the beginning and biennially since 1994, this survey provides nationally representative data thus allowing meaningful cross-sectional comparisons.

The 2004 version of the data consists of a sample of 2812 respondents 18 years of age or older who were interviewed face to face with a relatively high response rate (70 percent). Data were collected on respondents’ characteristics and behaviors together with their opinion on a number of specific issues. (Relevant demographic variables are summarized in Appendix 2). It is the comprehensive nature of this survey that makes the resulting data suitable for a multidimensional analysis like this. The 2004 data include a wide range of variables allowing the use of some proxy estimates when direct estimates are not available. Yet, using some existing data collected for general purposes like this poses a challenge in terms of ensuring both substantive and operational conformity.

Data reported missing values on a number of relevant variables. In some cases missing values occurred with small numbers of observations, providing no significant validity and reliability threats. In other cases, however, missing values pose more serious challenges. Variables indicating political identifies and political, civic, and cultural activities, for example, included missing values in as high as almost 50 percent of the cases. In these cases I carefully imputed the missing values using appropriate demographic and
other socioeconomic predictor variables. Because the principle of missing-at-random, which is the hallmark of missing data techniques, may not perfectly hold in cases with large missing values, it has implications for the validity of the analysis. At the same time, it was necessary to follow this particular strategy given that another preferred alternative, list-wise deletion, would have led to no observation with complete data. The imputation of these missing values was useful to maintain a dataset with 2803 of the 2812 observations included in the original dataset.

5.2.2 Model Estimation

I estimated the multidimensional model presented in Chapter 3 (Eqs. 3.17 and 3.20) with appropriate modifications especially to conform to the available data. Figure 5.1 depicts the final version of the model estimated here. As elaborated in Fig. 5.1, not only are the poverty dimensions measured involving multiple indicators, they are also affected by each other mimicking the types of interconnectedness that may be operational in society. Also, while the indicators are correlated only as mediated by the underlying poverty dimensions, three dyads of indicators—respondent’s individual income and family income, education and political activism, and personal contacts and voting in 2000—are correlated directly as well as

3 More specifically, variables with missing values included condition of health, treated with respect, occupational prestige, political activism, associational activity, personal contact, and participation in social activities. The imputation of data is justified since all of the important socio-demographic variables have complete data. The variables used in making such predictions include age, gender, nativity, race, marital status, household size, number of adults, number of children, number of earners, education, income, region, dwelling type and ownership, and occupation. While not all variables would turn out to be significant in all cases, I use a consistent set of predictors as it would not lead to more or less biased predictions. Because the original set of the indicators being imputed contains discrete values, I recode the imputed values to gain consistency.

4 The preliminary versions of the model included different specifications in terms of the y vector not only including the content but the form of the Y variables and even more importantly the form of the B matrix. Partly how these matrices are to be conceived depends on the theoretical relationships. But the form and content of the y vector needs to be supported by the given data. This is even more so in case of the B matrix since the literature does not provide specific guidance in terms of these relationships. It was, therefore, important to seek empirical support thus having to test hypotheses related to multiple specifications. This final model, therefore, represents the best possible specification given the data after multiple estimation, respecification, and evaluation attempts.
Note: 1) Squares or rectangles indicate observed variables and the ovals indicate latent poverty dimensions
2) Blank ovals indicate errors in measurement or equation
3) Double-headed arrows between two squares or rectangles indicate correlation

Fig. 5.1 The final multidimensional poverty model (US)
through poverty dimensions (see Appendix 4 for a description of the key indicator variables used in the analysis).\(^5\)

As in Chapter 4, the model was estimated using the weighted least squares estimator. Results\(^6\) reported in Table 5.1 indicate that, while the Chi square statistic was not significant given the degrees of freedom, other measures including CFI, TLI, and RMSEA show an adequate model fit. Whereas relatively large sample sizes are often advisable in statistical analyses, structural equation models typically report a poor model fit when sample size is relatively large, which appears to be operational here.\(^7\)

Since the model estimated here operationalizes poverty dimension indicators as the only variables with observed data, it is important to avoid confounding variables that may insignificantly load on the poverty dimensions. Precisely for this reason, Table 5.1 reports factor loadings that are all significant at 99 percent confidence level. While this operationalization may have left out some potentially relevant indicators, especially for data unavailability reasons, the set of highly significant loadings in each case reaffirms the theoretical relevance of indicators to measure the respective dimensions. Moreover, despite highly significant coefficients in all cases, some indicators appear to be more influential than others in determining poverty dimensions.

\(^5\) This is to note that the structural equation modeling does not require these indicators to be correlated. I incorporated their correlations for empirical purposes especially since they appeared to be highly correlated, thus considerably improving the model fit.

\(^6\) This final model is identified using the t- and two-step rules (Bollen 1989). While I could manually establish identification using these rules, the use of standard software automatically does so in an attempt to estimate SEM models and reports any identification problem. The MPlus software used here indicated that this final version of the model was in fact identified with 109 degrees of freedom.

\(^7\) The ratio of Chi square to degrees of freedom, a common indicator of model fit, of 13.64 reported for the model attenuates sizably when the sample size is reduced from the existing 2803 to 25 percent (or 700) randomly selected observations. The ratio of 5.11 for a model with reduced sample size, which is within the commonly acceptable range, conforms to that the overall measure of model fit may not always be reliable. Despite this, however, I continue using the full sample, rather than a smaller, experimental sample, with the conviction that the estimates produced would be more accurate.
Table 5.1 Standardized loadings in the multidimensional poverty model (US)
(Standard errors in parenthesis)

<table>
<thead>
<tr>
<th>Indicators/dimensions</th>
<th>Economic well-being</th>
<th>Capability</th>
<th>Economic inclusion</th>
<th>Political inclusion</th>
<th>Civic/cultural inclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log of income</td>
<td>0.571 **</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.000)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Log of equivalized family income</td>
<td>0.689 **</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.019)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satisfaction with financial situation</td>
<td>-0.447 **</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.033)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td>0.727 **</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.000)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Condition of health</td>
<td></td>
<td>-0.478 **</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.010)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treated with respect</td>
<td></td>
<td>-0.325 **</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.011)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occupational prestige</td>
<td>0.866 **</td>
<td>-0.260 **</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.023)</td>
<td>(0.071)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment industry</td>
<td>0.559 **</td>
<td></td>
<td>-0.179 **</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.014)</td>
<td></td>
<td>(0.048)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Work status</td>
<td></td>
<td>0.772 **</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.000)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weeks of work</td>
<td></td>
<td>0.613 **</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.174)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self employed</td>
<td></td>
<td>-0.281 **</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.069)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: * p< .05; ** p<.01
Table 5.1 (continued)

<table>
<thead>
<tr>
<th>Indicators/dimensions</th>
<th>Economic well-being</th>
<th>Capability</th>
<th>Economic inclusion</th>
<th>Political inclusion</th>
<th>Civic/cultural inclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Political activism</td>
<td></td>
<td></td>
<td>0.731 **</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.000)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voting in 2000 election</td>
<td></td>
<td></td>
<td>0.532 **</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.008)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group membership</td>
<td></td>
<td></td>
<td>0.479 **</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.000)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Associational activity</td>
<td></td>
<td></td>
<td>0.345 **</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.019)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal contact</td>
<td></td>
<td></td>
<td>0.253 **</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.029)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participation in social activities</td>
<td></td>
<td></td>
<td>-0.817 **</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.069)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Poverty Dimensions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic well-being</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capability</td>
<td>0.622 **</td>
<td>0.521 **</td>
<td>(0.012)</td>
<td>(0.012)</td>
<td></td>
</tr>
<tr>
<td>Political inclusion</td>
<td></td>
<td></td>
<td>0.474 **</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.025)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Civic/cultural inclusion</td>
<td></td>
<td></td>
<td>0.956 **</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.119)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

N = 2803; Chi-sq = 1487; DF = 109; Chi-sq/DF = 13.64; CFI = 0.946; TLI = 0.932; RMSEA = 0.067

Note: * p<.05; ** p<.01
5.2.3 Indicators of Poverty Dimensions

The standardized loadings reported in Table 5.1 as well as the R-squared estimates reported in Table 5.2 are helpful to identify the appropriateness of the indicators used in measuring the respective poverty dimensions. Results show that respondent’s income, equivalized family income, and satisfaction with financial situation share a significant commonality, forming the common factor economic well-being. However, equivalized family income was the most influential indicator in this particular context, followed by individual income. Since economic well-being is conceptually close to the traditional notion of poverty, it should not be surprising to find that family income can most systematically measure one’s state of economic well-being. This is justified given that individual income of the respondent is somewhat crude to measure economic well-being and that response to a question on the satisfaction over one’s financial situation can be highly unpredictable due to inconsistency of its meaning across respondents. While it was due partly to the lack of appropriate data, the primacy of family income in measuring economic well-being contrasts that of the subjective views found in Kathmandu (Chapter 4). This may be partly a reflection of the relative notion of needs that people from Kathmandu were able to use while answering the survey questions.

Results also show that education, health, respect, occupational prestige, and employment industry have significant loadings on the common factor, capability. The indicators with largest loadings and thus the most influence in estimating capability, however, are education and particularly occupational prestige. Education cannot be overemphasized when it comes to determining capability since its entire concept revolves around staying informed and being able to make appropriate decisions involving choices (Sen 1992, 1993, 1999). But the finding that occupational prestige may have even greater role in measuring capability is interesting. This is hardly a surprise, however, given the complementarities between educational attainment and occupational prestige with some of the role of the former

---

8 As happens with most econometric models, taking natural log has produced more robust estimates with both income variables. Also, family income has been equivalized to more appropriately accommodate the effects of family size on sharing income due to economies of scale. Consistent with Citro and Michael (1995) and Short (2001), I equivalized the family income of each respondent using:

\[ \frac{Y_i}{(X_i)^{1/2}} \]

where \( Y \) is the family income and \( X \) is the family size.
manifested through the latter. What follows is the role of employment industry that clearly aligns with the occupational prestige and the condition of health that tends to positively correlate with education. Although one of the core elements of capability is the integrity or self-respect, its less influential role may have to do with the fact that the survey sought to measure the level of respect at work, instead of that in the community. Also operational may be the understanding of respect when it comes to assessing how

<table>
<thead>
<tr>
<th>Indicators/dimensions</th>
<th>R-squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log of income</td>
<td>0.326</td>
</tr>
<tr>
<td>Log of equivalized family income</td>
<td>0.474</td>
</tr>
<tr>
<td>Satisfaction with financial situation</td>
<td>0.200</td>
</tr>
<tr>
<td>Education</td>
<td>0.529</td>
</tr>
<tr>
<td>Condition of health</td>
<td>0.229</td>
</tr>
<tr>
<td>Treated with respect</td>
<td>0.106</td>
</tr>
<tr>
<td>Occupational prestige</td>
<td>0.580</td>
</tr>
<tr>
<td>Self employed</td>
<td>0.078</td>
</tr>
<tr>
<td>Weeks of work</td>
<td>0.376</td>
</tr>
<tr>
<td>Work status</td>
<td>0.596</td>
</tr>
<tr>
<td>Employment industry</td>
<td>0.241</td>
</tr>
<tr>
<td>Voting in 2000 election</td>
<td>0.283</td>
</tr>
<tr>
<td>Political activism</td>
<td>0.534</td>
</tr>
<tr>
<td>Group membership</td>
<td>0.229</td>
</tr>
<tr>
<td>Associational activity</td>
<td>0.119</td>
</tr>
<tr>
<td>Participation in social activities</td>
<td>0.667</td>
</tr>
<tr>
<td>Personal contact</td>
<td>0.064</td>
</tr>
<tr>
<td>Economic well-being</td>
<td>0.513</td>
</tr>
<tr>
<td>Capability</td>
<td>0.385</td>
</tr>
<tr>
<td>Economic inclusion</td>
<td>0.271</td>
</tr>
<tr>
<td>Political inclusion</td>
<td>0.932</td>
</tr>
<tr>
<td>Civic/cultural inclusion</td>
<td>0.338</td>
</tr>
</tbody>
</table>

It must be noted that the R-squared estimates of occupational prestige and employment industry do not accurately mirror the level of their influence in measuring the associated poverty dimension as these load on both capability and economic inclusion.
others perceive it. Comparatively, while the centrality of education is evident in both cases, the findings here suggest that, unlike in Kathmandu, health status may not be very important. Although health was measured by asking a question on the condition of health, which can be different from nutritional issues, its place appears to have taken by the occupational prestige indicator in the United States.

Providing partial support to the UNDP’s (2000a, b, 2005) strategy to operationalize social inclusion using chronic unemployment, weeks of work and especially work status appear to have the most influential role in assessing one’s state of economic inclusion, as indicated by their large standardized loadings. While other indicators including occupational prestige, employment industry, and self-employment status primarily capturing the qualitative aspect of work significantly load on the common factor economic inclusion, the suggestion that the extent of engagement in the labor market is perhaps more important is interesting. Though seemingly contradictory with the case from Kathmandu, the finding that there is less influential role of employment industry—as well as occupational prestige—in the United States may have uncovered the labor market dynamics that are context specific. Additionally, this may have to do with the rather influential role of the qualitative aspect of work in assessing one’s capability, thus rendering its role in terms of economic inclusion only secondary. It would be interesting to see how this would play out if the access to financial resources, found to be an influential indicator in Kathmandu, were to be included in the model.

Of the two indicators that were used to measure political inclusion, while both have significant loadings, political activism is more influential than one’s participation in the 2000 presidential election. In modern democracies, adult suffrage is the most obvious way people participate in their own governance, where those failing to participate forgo the opportunity to determine their own destiny. At the same time, however, people find other more direct ways of influencing policy decisions than simply casting ballots electing their political representatives (Verba et al. 1978; Verba et al. Brady 1997); hence the declining voter participation in the United States. The suggestion that political activism is more important than voting itself is unsurprisingly consistent with the case from Kathmandu despite contextual differences, due perhaps to the more comprehensive nature of the former capturing a host of ways people participate in political activities.
Results also show that organizational memberships, associational activity, personal contacts, and participation in social activities share significant commonality in forming civic/cultural inclusion. Largely consistent with the case from Kathmandu, participation in various social activities including those of professional, sports, religious, and cultural associations played a very influential role in estimating civic and cultural inclusion in the United States. Differences exist in terms of the coverage of social activities, however, as they were divided into social and community activities in the survey from Kathmandu. But the two contexts manifest similar dynamics involving the role of active engagement in social or community activities to enrich the social fabric of life. While the membership alone in various voluntary and professional organizations and groups is relatively important, maintaining wider personal contacts and perceived importance of being active in political and social associations do not exert as influential a role in measuring civic and cultural inclusion. These latter modes of participation have merit in determining civic participation (Putnam 1993, 2000) but they may not be that central in determining civic and cultural integration promoting the relational resources.

Table 5.2 indicates that the model explains the five poverty dimensions relatively well with the variations in economic inclusion explained the least and those in political inclusion explained the most. Clearly, the explanatory power of the model does not just depend on the number of indicators or their robustness. Perhaps even more important is the robustness of the specified relationships among the poverty dimensions that are being measured. Given this, while the model appears to have explained over 93 percent of the variation in political inclusion, it is not all too clear whether it is because of the well-behaving indicators or because of the robust inter-relationships.

### 5.2.4 Multidimensionality of Poverty

Table 5.3 reports correlation estimates involving each dyad of the poverty dimensions. Since each represents correlation between two sets of poverty dimension scores, the positive entries in all cases support the hypothesis involving positive relationships among all poverty dimensions. Neither the positive relationships themselves nor their consistency with the case from Kathmandu should be surprising, however, as these dimensions are different manifestations with overall poverty as the unifying theme. The fact that some correlations are larger than others should not be surprising either given the role of capability in enabling one to derive a more comprehensive set of economic resources. Correlation of these two dimensions with
the three (sub)dimensions that feed into social inclusion is either moderate or moderately high, given their operationally somewhat different foci. Of these three social inclusion (sub)dimensions, however, while economic inclusion has moderately low correlation with both political inclusion and civic and cultural inclusion, the latter two have near-perfect correlation. Because the correlation reflects on the both correlation among the inter-dimension indicators and the interrelationships among dimensions, this high correlation is still plausible.

### Table 5.3 Correlations among poverty dimensions (US)

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Economic well-being</th>
<th>Capability</th>
<th>Economic inclusion</th>
<th>Political inclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic well-being</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capability</td>
<td>0.855</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic inclusion</td>
<td>0.558</td>
<td>0.603</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>Political inclusion</td>
<td>0.745</td>
<td>0.779</td>
<td>0.414</td>
<td>1.000</td>
</tr>
<tr>
<td>Civic/cultural inclusion</td>
<td>0.738</td>
<td>0.765</td>
<td>0.408</td>
<td>0.997</td>
</tr>
</tbody>
</table>

*Note: Correlations produced by the model*

Table 5.1 also reports the standardized coefficients on poverty dimensions capturing the effect of one dimension on another. As Fig. 5.1 depicts, however, the actual path that is operational in determining poverty dimensions can be quite complex involving both direct and indirect effects. Taking these paths into consideration, Table 5.4 reports the total standardized effects of each poverty dimension on the other. Note that all total effects are statistically significant as the individual effects that were used in computing the total standardized effects were all statistically significant at a stringent 99 percent confidence level.

Table 5.4 indicates that each dimension has at least some effect on others. In case of economic inclusion, however, it does not confer any effect on other dimensions. Ideally, a dimension that incorporates effects from other dimensions and yet does not render any effect on others would be considered a result dimension. In this particular case, however, economic inclusion cannot be considered a result dimension, as it is primarily a

---

10 Total effects represent the change in $\eta_i$ associated to a unit change in $\eta_j$. See footnote 16 in Chapter 4 for details.
means by which people derive resources that are instrumental at avoiding a poor quality of life.\textsuperscript{11}

Table 5.4 Total standardized effects of poverty dimensions (US)

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Economic well-being</th>
<th>Capability</th>
<th>Economic inclusion</th>
<th>Political inclusion</th>
<th>Civic/cultural inclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Well-being</td>
<td>1.130</td>
<td>0.209</td>
<td>0.109</td>
<td>0.441</td>
<td>0.461</td>
</tr>
<tr>
<td>Capability</td>
<td>0.703</td>
<td>1.130</td>
<td>0.589</td>
<td>0.274</td>
<td>0.287</td>
</tr>
<tr>
<td>Economic Inclusion</td>
<td>0.000</td>
<td>0.000</td>
<td>1.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Political Inclusion</td>
<td>0.333</td>
<td>0.536</td>
<td>0.279</td>
<td>1.130</td>
<td>0.136</td>
</tr>
<tr>
<td>Civic/Cultural Inclusion</td>
<td>0.318</td>
<td>0.512</td>
<td>0.267</td>
<td>1.080</td>
<td>1.130</td>
</tr>
</tbody>
</table>

Note: This table is presented as a transpose of the B matrix.

Table 5.4 offers a number of important findings. First, economic well-being is largely a function of capability as one standard deviation increase in capability boosts economic well-being by 0.70 standard deviations. It is quite consistent with capabilistic arguments suggesting that capability determines one’s opportunity sets and, therefore, the resulting economic payoffs (Alkire 2002; Sen 1992, 1993, 1999). The roles of political and civic and cultural inclusion, however, are small but consistent with each other indicating that they have moderately weak relationships with material resources. Different from a lack of any operational effect found in Kathmandu, this analysis supports that those with wider participation in political and civic and cultural activities can expect a relatively higher level of economic well-being.

Second, unlike in Kathmandu where the level of capability appeared to be determined independent of other dimensions, this analysis suggests that it is partly a function of political and civic and cultural inclusion in the United States. While whether or not one’s participation in political and civic and cultural activities enables one to derive more extensive capability endowments is debatable as these endowments including education and respect need to be developed over a long period of time, this moderate effect of active participation in political and civic and cultural systems makes the

\textsuperscript{11} While the process has been purely empirical, this result is not consistent with the case from Kathmandu. Partly it may be a reflection of the contextual dissimilarity as to what extent and how qualitatively one participates in the labor market may not have any systematic effects on the level of material resources, capability, political participation, or civic life. One can be reasonably skeptical, however, as the data captured may not have been complete (my suspicion) or may have behaved differently.
complimentarity between the inner strength and relational resources even stronger (Sen 2000). The role of economic well-being in determining capability is rather negligible, however, as one standard deviation increase in the level of economic well-being can augment one’s capability by greater than a quarter of a standard deviation.

Finally, of the three social inclusion (sub)dimensions, results suggest that economic inclusion is primarily a function of capability, political inclusion is a function of economic well-being and especially civic and cultural inclusion, and civic and cultural inclusion is to a degree a function of economic well-being. A strong role of capability in determining economic inclusion is consistent with the case from Kathmandu but there is some evidence of the role of political and civic and cultural inclusion in the United States, which coincides with the somewhat attenuated role of capability. Because the overall political and civic and cultural inclusion may have been lower in the United States, those with wider participation appear to stand out in terms of economic inclusion. When it comes to determining political inclusion too, the dominant roles of economic well-being and especially civic and cultural inclusion endure contextual variations. While the feeling of civic and cultural belongingness appears to overwhelmingly support political participation, those with more extensive material resources are also more likely to participate in political systems. The context does appear to make a large difference in terms of the role of capability as, unlike in Kathmandu, wider sets of capability endowments do not automatically render people politically more participatory. Moreover, while the findings are consistent regarding the dominant roles of economic well-being and capability in determining civic and cultural inclusion, the effect of capability is remarkably smaller in the United States. As such, whether or not people are integrated civicly and culturally is partly a function of their material resources which are needed to sustain their participation. Although consistent with the dynamics in Kathmandu, it is surprising to observe that, despite almost 100 percent correlation between political and civic and cultural inclusion, these two engage in a unidirectional effect mechanism with a higher degree of political participation resulting from a higher degree of civic and cultural inclusion and not vice versa.

This complex web of relationships substantiates the overall multidimensional poverty hypothesis. While not all poverty dimensions affect every other dimension and while the effects of some dimensions are smaller, this provides empirical support to the mostly theoretical arguments indicating the multidimensionality of poverty with dimensions representing the resources needed to secure different qualities of life (Figueroa et al. 1996; Gore and Figueiredo 1997; Gore et al 1995; IILS 1996; Sen 1992, 2000; Wagle 2002). In partial support to the case from Kathmandu, this analysis
suggests that capability is central to determining one’s status in economic well-being and economic inclusion in the United States. There is even qualitatively stronger evidence that civic and cultural inclusion significantly contributes to capability and especially political inclusion. Yet, given that economic inclusion, political inclusion, and civic and cultural inclusion are (sub)dimensions of social inclusion, this analysis supports the hypothesis that capability may be central to the entire analysis of multidimensional poverty in the United States. Regarding the role of economic well-being, however, results are not highly supportive of the hypothesis involving its positive effects on capability and particularly economic inclusion. While one could expect economic inclusion to augment the level of economic well-being, not necessarily vice versa, a lack of support to this hypothesis found in Kathmandu is also relevant in the United States, perhaps reflecting on that labor market dynamics cannot systematically explain the economic payoffs that people derive in reality.

5.2.5 Poverty Measurement Outcomes

Table 5.5 provides summary statistics on each set of the poverty dimension scores. These are derived from the normalized scores predicted by the model such that their means would be approximately zero but the standard deviations would be relatively different depending on their overall distributions. While these poverty dimension scores have different measurement scales as indicated by the reported mean values, they also have different distributions. Especially important are the coefficients of variation that show that the economic well-being scores are much more unequally distributed than other scores. Partly, this depends on the distribution of the indicator whose scale is used to measure the associated dimension scores. Yet, the finding that economic well-being scores are the most unequally distributed of all is plausible given that economic resources tend to have larger variations in this society. It is somewhat surprising to find that political and civic/cultural inclusion are more unequally distributed than capability and economic inclusion, given that people’s inner strength and resources and access to economic activities could be highly disparate. Political and civic/cultural inclusion could also be more unequally distributed in this society with widespread political apathy and social disintegration.

Comparatively, these distributions are consistent with those predicted in Chapter 4 for Kathmandu. But the coefficients of variation are slightly

\[ \text{As elaborated in Chapter 4 (footnote 17), this transformation was done without changing the relative distribution of the scores.} \]
larger in the United States as the representation of an entire population would typically uncover especially when the sample size is large. The fact that the economic well-being scores are much more dispersed in the United States affirms the highly disparate financial reward system in this advanced capitalist society.

### Table 5.5 Summary statistics on poverty dimensions (US)

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Coefficient of variation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Well-being</td>
<td>0.00</td>
<td>0.78</td>
<td>0.75</td>
<td>-3.65</td>
<td>2.05</td>
</tr>
<tr>
<td>Capability</td>
<td>-0.01</td>
<td>1.90</td>
<td>0.33</td>
<td>-5.81</td>
<td>6.07</td>
</tr>
<tr>
<td>Economic Inclusion</td>
<td>-0.02</td>
<td>1.09</td>
<td>0.30</td>
<td>-3.59</td>
<td>2.12</td>
</tr>
<tr>
<td>Political Inclusion</td>
<td>0.00</td>
<td>2.88</td>
<td>0.41</td>
<td>-7.02</td>
<td>10.31</td>
</tr>
<tr>
<td>Civic/Cultural Inclusion</td>
<td>0.00</td>
<td>0.99</td>
<td>0.41</td>
<td>-2.40</td>
<td>3.62</td>
</tr>
</tbody>
</table>

These poverty dimension scores can be thought of as the means or resourcefulness that each respondent exhibits on different aspects of life. As such, these measures of access to resources can be used to identify one’s poverty status expressed as the inadequacy of resources. This is to note that these scores are not highly appropriate to make absolute comparisons between cases due to their inability to accurately account for the errors that are important elements of how each and every individual fares in society. It is therefore the relative comparison of the scores that is justified, with usefulness in identifying poverty status. When it comes to measuring poverty, however, there would be multiple poverty statuses identified for people across different poverty dimensions, which may or may not conform to each other. As suggested in Chapter 3, the point of departure would be to identify unidimensional poverty status on each of the poverty dimensions. Since the model estimated three sets of scores for social inclusion (sub)dimensions, however, it is important to aggregate these scores into the formal social inclusion scores. While the scores could be aggregated by applying some weighting scheme, depending on the relative importance of each of the social inclusion (sub)dimensions, I will aggregate them using the multidimensional framework. As followed in Chapter 4, the social inclusion poverty status is identified by looking at the three unidimensional poverty statuses on the economic, political, and civic/cultural inclusion

---

13 This is assuming that each of the dimensions has equal weight. In reality, people may value any of the economic, political, and civic and cultural inclusions more dearly than others, as it may be more relevant to determining one’s social quality of life.
dimensions. A social inclusion poor, therefore, would have poor status on at least two of the three social inclusion (sub)dimensions.

Irrespective of this procedure, what poverty line or threshold to use on each of the poverty dimensions is central to poverty measurement, as discussed in Chapter 3. This issue has also been highly controversial as different poverty lines or thresholds can lead to very different measurement outcomes. From the policy standpoint, it would be more useful to think of the poverty line in terms of the target population that the policy attempts to address. At the same time, the extent of poverty would also depend on the overall distribution of resources with more unequal distributions manifesting greater poverty and deprivation. Following the procedure adopted in Chapter 4, I use the absolute and relative criteria to identify poverty status. Under the absolute criterion, I make an assumption about the size of the poverty population by drawing from existing research. Rather than using a specific figure, however, I assume that between 10 and 30 percent of the population are poor in the United States. These targets are realistic given that over 12 and 31 percent of the population were identified as poor in 2004 using 100 and 200 percent of the official poverty lines (Census Bureau 2005). These targets are used to identify the unidimensional poverty status of respondents as reported in the first two columns of Table 5.6. Under the relative criterion, I use the poverty cutoff point of 50 percent of the median value, just like in Chapter 4, so that the estimates produced would be conservatively plausible. The last column of Table 5.6 provides poverty estimates applying this relative criterion. Also included in this table are the poverty estimates for the social inclusion dimension. Since the poverty statuses were identified using multidimensional processes, the incidence of social inclusion poverty is slightly less than the initial 10 percent and 30 percent targets.

As indicated in Table 5.6, while the absolute criteria provide poverty estimates that are close to the poverty target, the relative criterion provides different estimates. Since the size of relative poverty depends on the distribution of the poverty dimension scores, it is not surprising to find that the incidence of economic well-being poverty is greater than other poverty

---

14 The lower and upper bounds that the poverty estimates for the United States are exactly the same as those for Kathmandu. While this makes the comparative analysis simpler, this has resulted from a systematic, not an arbitrary, process.

15 Using census data, Danziger and Gotschalk (2005) estimated the population below official poverty line to be close to 10 percent in 1999. While more recent approaches experimented by the Census Bureau (2006) provide a variety of measurement estimates including those that are as low as slightly over eight percent, these are yet to be formalized as the official poverty lines to be used for a variety of governmental purposes.
incidences. At the same time, the incidence of capability poverty appears to be smaller than the incidence of economic inclusion poverty. Although the economic inclusion scores have a smaller variation than do the capability scores, a greater number of cases below the relative economic inclusion poverty threshold indicates that a considerably larger percentage of the respondents lagged behind on economic inclusion.

**Table 5.6 Unidimensional poverty incidence (US)**
(Values are percentages)

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Absolute poverty</th>
<th>Relative poverty</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10% target</td>
<td>30% target</td>
</tr>
<tr>
<td>Economic Well-being poor</td>
<td>10.00</td>
<td>30.00</td>
</tr>
<tr>
<td>Capability poor</td>
<td>10.00</td>
<td>30.00</td>
</tr>
<tr>
<td>Economic Inclusion poor</td>
<td>10.00</td>
<td>30.00</td>
</tr>
<tr>
<td>Political Inclusion poor</td>
<td>10.00</td>
<td>30.00</td>
</tr>
<tr>
<td>Civic/Cultural Inclusion poor</td>
<td>10.00</td>
<td>30.00</td>
</tr>
<tr>
<td>Social Inclusion poor&lt;sup&gt;a&lt;/sup&gt;</td>
<td>9.60</td>
<td>29.86</td>
</tr>
</tbody>
</table>

<sup>a</sup>Aggregate of the economic, political, and civic/cultural inclusion poverty incidence

Consistent with the case from Kathmandu, the 50 percent of the median threshold would classify a much larger percentage of the population as the economic well-being poor than other types of the poor. At the same time, the size of the capability poor is smaller in the United States and that of the social inclusion poor is smaller in Kathmandu. Because economic well-being and the three forms of social inclusion are more unequally distributed in the United States, a relatively larger percentage of the population is classified as the poor on the respective poverty dimensions. This is different in case of the capability poor as the more unequal distribution of the capability scores has produced smaller capability poverty incidence in the United States, a finding partly dependent on where in the distribution lies greater inequality.

Table 5.7 estimates the multidimensional poverty incidence for each of the specific poverty categories following both absolute and relative criteria. As set out in Chapter 3 and implemented in Chapter 4, these estimates were computed by identifying as the ‘abject poor’ those who were poor on all three spaces, as the ‘very poor’ those who were poor on any two spaces, as the ‘poor’ those who were poor on just one space, and as non-poor those who were not poor on all three spaces. As reported in Table 5.7, application of the 10 percent target under each poverty dimension would identify
slightly over three percent as the abject poor, five percent as the very poor, and nine percent as the poor.\footnote{These are non-cumulative percents indicating that the poverty population under the 10 percent target would exceed 17 percent including all three categories of the poor.} When this target increases to 30 percent, the size of the abject poor expands to 20 percent, the very poor to 10 percent, and the poor to 12 percent. Moreover, the relative criterion classifies over three percent as the abject poor, five percent as the very poor, and 14 percent as the poor.

It is interesting to observe that movements in and out of different categories of poverty are not proportional to the poverty targets used. A threefold increase in the absolute poverty target, for example, causes almost sixfold increase in the size of the abject poor and a twofold increase in the size of the very poor, without changing much the size of the poor. Ideally, one would expect that application of a less-stringent poverty threshold—i.e., a higher poverty target—increases the population that is not severely poor as one can exhibit poor status on one (or even two) type of resources by a mere chance. This does not hold in reality, however, perhaps because of the strong interrelationships among the poverty dimensions so that poverty statuses on all three dimensions are somewhat predictable. This predictability may be higher for those who are less-severely poor than the more-severely poor. This further attests to the fact that the dimensions used are highly relevant to measuring multidimensional poverty in the United States. It may also be for this precise reason that the movement from the 10 to 30 percent target causes much less than a proportional decline in the non-poor population.

### Table 5.7 Multidimensional poverty incidence (US)
(Values are percentages)

<table>
<thead>
<tr>
<th>Poverty categories</th>
<th>Absolute poverty</th>
<th>Relative poverty</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10% target</td>
<td>30% target</td>
</tr>
<tr>
<td>Nonpoor</td>
<td>82.38</td>
<td>57.83</td>
</tr>
<tr>
<td>Poor</td>
<td>9.03</td>
<td>13.02</td>
</tr>
<tr>
<td>Very Poor</td>
<td>5.24</td>
<td>10.60</td>
</tr>
<tr>
<td>Abject Poor</td>
<td>3.35</td>
<td>18.55</td>
</tr>
</tbody>
</table>

Interestingly, there are important differences between the poverty outcomes in the United States and Nepal. While the poverty targets and the processes have remained unchanged, it was interesting to observe that the...
population in poverty was considerably larger in the United States. Using the 10 percent poverty target, this difference was almost five points signifying the fact that the unidimensional poverty measurement outcomes were less consistent in the United States. Despite being poor on one dimension, for example, people in the United States tended to have higher scores on others thus avoiding poverty on other dimensions. This is also supported by a smaller percentage being the abject poor in the United States (three percent) than those in Kathmandu (five percent). Yet, this does not hold when the less stringent poverty target is used with the difference narrowing down to three percent. While having a larger percent as the poor reverses when the poverty target is increased to 30 percent, the proportions become more consistent with the case from Kathmandu. Also, where as the observation is consistent with the case from Kathmandu, the size of the relative poor is larger in the United States dues especially to the larger size of the economic well-being and especially social inclusion poor. Most of the increase in the size of the relative poor population, however, appears to be concentrated in the poor category with small size of the very poor and abject poor.

Table 5.8 reports correlations among the poverty measurement outcomes following the absolute and relative criteria. As expected, the two absolute poverty targets share much more commonalities with the relative approach than between themselves obviously because the poverty measurement outcomes following the relative approach lie in between those following the two absolute targets. Moreover, the outcomes are closer between the 10 percent target and the relative criteria than between other dyads. Yet, the composition of the relative poverty with considerably larger size of the economic well-being poor renders the correlation between the 10 percent target and relative criteria to 90 percent despite less than four percentage point difference in the sizes of the poverty population.

### Table 5.8 Correlations among poverty measurement outcomes (US)

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Absolute poverty</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10% target</td>
</tr>
<tr>
<td>Absolute: 10% Target</td>
<td>1.00</td>
</tr>
<tr>
<td>Absolute: 30% Target</td>
<td>0.66</td>
</tr>
<tr>
<td>Relative</td>
<td>0.90</td>
</tr>
</tbody>
</table>

The similarities or differences in measurement outcomes appear to be largely consistent between Kathmandu and the United States suggesting that the multidimensional framework irrespective of their contexts. Sizable
differences would be likely, however, if the three types of poverty were to observe much more or much less commonalities so that the poverty status on one dimension would or would not more easily predict the poverty status on other dimensions. But the contextual differences between Nepal and the United States have produced somewhat different estimates as indicated by the correlations that are between three and seven percentage points different.

5.2.6 Characteristics of Unidimensional Poverty

Table 5.9 identifies the unidimensional poverty incidence among different demographic groups in the United States following each poverty dimension. Overall, the unidimensional poverty incidences differ for different demographic groups. First, economic well-being poverty is disproportionately concentrated among the young, Blacks, American-Indians, Hispanics, never married and widowed, and those with three or more children under six. The demographic groups with somewhat less but yet more than average concentration of poverty include the females, divorced/separated, South region, no religion, large households, and large number of children under 18. Although there are disproportionate variations between the outcomes following the 10 and 30 percent targets signifying that the likelihood of being economic well-being poor for different demographic groups depends on the poverty threshold used, these characteristics are highly consistent with previous findings (Albelda and Wagle 2004; Bane 1986; Darity and Mayers 1994; McCrate 2004; Newbeck 2004; Newman 1999; Sawhill 1988; Wilson 1996, 2006).

Second, capability poverty is heavily concentrated among the American-Indians, Hispanics, and widowed where as the less but yet much higher than the average concentration of capability poverty occurs among the young and old, females, Blacks, never married, South region, no religion, and three or more children under six. Unlike, economic well-being poverty, however, capability poverty appears to be relatively less unequally distributed thus with only a small percentage of the population exhibiting considerably higher concentration of capability poverty. Because the capability poor lack inner strength including self respect, confidence, and other measures of individual resources, its concentration on the young and old, Blacks and Hispanics, and never married indicates that the stereotypical explanations of poverty in terms of inner confidence are highly justified. A very low level of human capital development among certain demographic groups suggests that the level of capability one derives depends on the person’s demographic identity (Becker 1964; Sen 1999, 2006; Alkire 2006).
While the survey was able to cover only 15 respondents with households containing three or more children, their capability poverty status was highly unpredictable. None of the respondents was poor using the 10 percent target and the relative criterion where as over 50 percent were poor using the 30 percent target perhaps indicating their relatively vulnerable position in terms of the inner strength and resources.

Third, social inclusion poverty is highly concentrated among the young, Blacks, American-Indians, Hispanics, foreign-born, and widows where as the groups that have more than the expected levels of concentration include females, Asians, never married, South region, no religion, single member households, and having one child under 18 or two or more children under six. This clearly paints a picture in which those left behind without adequate integration into the economic, political, and social systems include the minorities who are either from single member households or have some children (Amis and Rakodi 1994; Gordon et al. 2000; Silver and Wilkinson 1995; Social Exclusion Unit 2001; Rodgers 1995). These are mostly the groups conventionally identified as the poor especially in terms of the size of households and non-native status. Yet, this reveals differences in the relational resources among people given their demographic identities.

The unidimensional poverty incidences across economic well-being, capability, and social inclusion dimensions largely conform to each other for most of the demographic groups. This supports the multidimensionality hypothesis of poverty indicating that the outcomes from the multidimensional approach would be more accurate especially in terms of identifying different degrees of poverty. Cases in point are such demographic groups as the young, Blacks, American Indians, Hispanics, and widowed with generally higher concentrations of poverty. Despite this, there are some differences between each dyad of the unidimensional poverty outcomes reflecting that they measure somewhat different aspects of poverty. These differences occur especially in terms of the degrees of concentration within the high or low concentration categories for each demographic group rather than simply the rudimentary view of higher or lower concentration compared to the expected levels. Though exuding high concentration of poverty, the younger group of respondents experiences a relatively higher concentration of economic well-being poverty and a lower concentration of capability poverty. Albeit at various levels, this holds true for many demographic groups exuding the fact that demographic groups are likely to experience different levels of unidimensional poverty following different poverty dimensions and following different poverty approaches.

Despite comparable differences across groups, the Blacks, American Indians, Hispanics, widowed, and non-religious people were overrepresented in all unidimensionally identified groups of the poor. While comparable
Table 5.9 Unidimensional poverty among different demographic groups (US)
(Values are percentages of the total)

<table>
<thead>
<tr>
<th>Demographic groups</th>
<th>Total (N)</th>
<th>Economic well-being</th>
<th>Capability</th>
<th>Social inclusion</th>
<th>Economic well-being</th>
<th>Capability</th>
<th>Social inclusion</th>
<th>Economic well-being</th>
<th>Capability</th>
<th>Social inclusion</th>
<th>Economic well-being</th>
<th>Capability</th>
<th>Social inclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total (n)</td>
<td>2803</td>
<td>280</td>
<td>280</td>
<td>269</td>
<td>841</td>
<td>841</td>
<td>837</td>
<td>506</td>
<td>155</td>
<td>270</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 to 30</td>
<td>541</td>
<td>17.93</td>
<td>11.28</td>
<td>13.86</td>
<td>48.24</td>
<td>39.93</td>
<td>48.24</td>
<td>29.39</td>
<td>5.55</td>
<td>13.68</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30 to 60</td>
<td>1640</td>
<td>7.62</td>
<td>7.07</td>
<td>8.05</td>
<td>23.29</td>
<td>23.23</td>
<td>23.90</td>
<td>13.90</td>
<td>3.90</td>
<td>8.17</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>1527</td>
<td>6.02</td>
<td>7.01</td>
<td>7.60</td>
<td>20.76</td>
<td>22.46</td>
<td>23.71</td>
<td>11.98</td>
<td>3.73</td>
<td>7.60</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>1276</td>
<td>14.73</td>
<td>13.56</td>
<td>11.99</td>
<td>41.07</td>
<td>39.03</td>
<td>37.23</td>
<td>25.31</td>
<td>7.68</td>
<td>12.07</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>373</td>
<td>19.84</td>
<td>17.16</td>
<td>16.62</td>
<td>46.65</td>
<td>41.82</td>
<td>45.04</td>
<td>32.98</td>
<td>8.58</td>
<td>16.89</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Indian</td>
<td>26</td>
<td>34.62</td>
<td>42.31</td>
<td>15.38</td>
<td>53.85</td>
<td>69.23</td>
<td>53.85</td>
<td>42.31</td>
<td>23.08</td>
<td>15.38</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td>100</td>
<td>11.00</td>
<td>8.00</td>
<td>12.00</td>
<td>31.00</td>
<td>20.00</td>
<td>41.00</td>
<td>16.00</td>
<td>5.00</td>
<td>12.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>75</td>
<td>16.00</td>
<td>16.00</td>
<td>26.67</td>
<td>45.33</td>
<td>44.00</td>
<td>58.67</td>
<td>30.67</td>
<td>13.33</td>
<td>25.33</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>2229</td>
<td>7.81</td>
<td>8.30</td>
<td>7.67</td>
<td>26.38</td>
<td>27.55</td>
<td>25.57</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nativity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreign-born</td>
<td>272</td>
<td>10.29</td>
<td>10.66</td>
<td>18.38</td>
<td>32.35</td>
<td>29.04</td>
<td>46.69</td>
<td>17.28</td>
<td>7.35</td>
<td>18.38</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US-born</td>
<td>2531</td>
<td>9.96</td>
<td>8.49</td>
<td>8.65</td>
<td>29.75</td>
<td>30.11</td>
<td>28.05</td>
<td>18.14</td>
<td>5.33</td>
<td>8.69</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never married</td>
<td>618</td>
<td>17.64</td>
<td>12.30</td>
<td>14.08</td>
<td>43.37</td>
<td>37.54</td>
<td>43.37</td>
<td>29.13</td>
<td>6.80</td>
<td>14.08</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>1474</td>
<td>495.00</td>
<td>7.19</td>
<td>6.72</td>
<td>19.81</td>
<td>23.34</td>
<td>21.64</td>
<td>10.18</td>
<td>3.93</td>
<td>6.78</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Widowed</td>
<td>203</td>
<td>14.78</td>
<td>23.15</td>
<td>16.26</td>
<td>45.81</td>
<td>45.81</td>
<td>43.35</td>
<td>29.06</td>
<td>13.30</td>
<td>16.26</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Divorced/separated</td>
<td>508</td>
<td>13.39</td>
<td>10.04</td>
<td>9.84</td>
<td>37.01</td>
<td>33.86</td>
<td>31.89</td>
<td>23.03</td>
<td>5.51</td>
<td>9.84</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Table 5.9 (continued)

<table>
<thead>
<tr>
<th>Demographic groups</th>
<th>Total (N)</th>
<th>10% target</th>
<th></th>
<th>30% target</th>
<th></th>
<th>Relative poverty</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Economic well-being</td>
<td>Social capability</td>
<td>Economic inclusion</td>
<td>Economic well-being</td>
<td>Social capability</td>
<td>Economic inclusion</td>
<td>Social inclusion</td>
</tr>
<tr>
<td>Region</td>
<td>Economic well-being</td>
<td>Social capability</td>
<td>Economic inclusion</td>
<td>Economic well-being</td>
<td>Social capability</td>
<td>Economic inclusion</td>
<td>Social inclusion</td>
</tr>
<tr>
<td>Midwest</td>
<td>696</td>
<td>9.34</td>
<td>9.34</td>
<td>8.33</td>
<td>31.03</td>
<td>31.61</td>
<td>29.02</td>
</tr>
<tr>
<td>South</td>
<td>1083</td>
<td>12.83</td>
<td>12.83</td>
<td>12.83</td>
<td>35.73</td>
<td>35.46</td>
<td>35.64</td>
</tr>
<tr>
<td>West</td>
<td>577</td>
<td>10.05</td>
<td>8.15</td>
<td>7.63</td>
<td>25.65</td>
<td>22.53</td>
<td>27.21</td>
</tr>
<tr>
<td>Religion</td>
<td>Economic well-being</td>
<td>Social capability</td>
<td>Economic inclusion</td>
<td>Economic well-being</td>
<td>Social capability</td>
<td>Economic inclusion</td>
<td>Social inclusion</td>
</tr>
<tr>
<td>Catholic</td>
<td>655</td>
<td>8.40</td>
<td>7.94</td>
<td>9.31</td>
<td>27.63</td>
<td>28.55</td>
<td>28.70</td>
</tr>
<tr>
<td>Protestant</td>
<td>1490</td>
<td>9.80</td>
<td>10.07</td>
<td>7.52</td>
<td>29.66</td>
<td>30.47</td>
<td>27.05</td>
</tr>
<tr>
<td>Others</td>
<td>257</td>
<td>7.00</td>
<td>8.95</td>
<td>6.23</td>
<td>26.07</td>
<td>26.07</td>
<td>29.96</td>
</tr>
<tr>
<td>No religion</td>
<td>401</td>
<td>15.21</td>
<td>13.72</td>
<td>19.95</td>
<td>37.66</td>
<td>33.17</td>
<td>42.14</td>
</tr>
<tr>
<td>Households size</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One</td>
<td>704</td>
<td>11.22</td>
<td>13.21</td>
<td>12.22</td>
<td>32.39</td>
<td>31.25</td>
<td>34.09</td>
</tr>
<tr>
<td>Two</td>
<td>1076</td>
<td>8.18</td>
<td>8.83</td>
<td>7.81</td>
<td>26.77</td>
<td>30.58</td>
<td>25.84</td>
</tr>
<tr>
<td>Three</td>
<td>441</td>
<td>13.83</td>
<td>10.66</td>
<td>10.43</td>
<td>33.11</td>
<td>28.57</td>
<td>32.88</td>
</tr>
<tr>
<td>Four</td>
<td>341</td>
<td>6.45</td>
<td>5.87</td>
<td>8.50</td>
<td>26.98</td>
<td>24.93</td>
<td>30.21</td>
</tr>
<tr>
<td>Five or more</td>
<td>241</td>
<td>12.45</td>
<td>10.37</td>
<td>9.96</td>
<td>36.10</td>
<td>33.61</td>
<td>29.46</td>
</tr>
<tr>
<td>Children under 18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>1934</td>
<td>9.31</td>
<td>10.86</td>
<td>9.20</td>
<td>28.54</td>
<td>30.56</td>
<td>29.58</td>
</tr>
<tr>
<td>One</td>
<td>382</td>
<td>12.30</td>
<td>9.42</td>
<td>12.30</td>
<td>34.55</td>
<td>30.37</td>
<td>33.51</td>
</tr>
<tr>
<td>Two</td>
<td>305</td>
<td>8.85</td>
<td>4.92</td>
<td>8.52</td>
<td>27.54</td>
<td>22.95</td>
<td>25.57</td>
</tr>
<tr>
<td>Three or more</td>
<td>182</td>
<td>14.29</td>
<td>10.44</td>
<td>9.89</td>
<td>40.11</td>
<td>35.16</td>
<td>32.42</td>
</tr>
<tr>
<td>Children under 6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>2451</td>
<td>9.26</td>
<td>10.08</td>
<td>9.18</td>
<td>28.68</td>
<td>29.54</td>
<td>28.97</td>
</tr>
<tr>
<td>Two</td>
<td>96</td>
<td>15.63</td>
<td>12.50</td>
<td>13.54</td>
<td>35.42</td>
<td>31.25</td>
<td>32.29</td>
</tr>
<tr>
<td>Three or more</td>
<td>15</td>
<td>20.00</td>
<td>0.00</td>
<td>0.00</td>
<td>66.67</td>
<td>53.33</td>
<td>33.33</td>
</tr>
</tbody>
</table>
data are not available for the American Indian, widowed, and non-religious groups, the racial manifestation of poverty especially among the Blacks and Hispanics is consistent with the official poverty measurement outcomes. In addition, the estimates reported in Table 5.10 suggest that being young, individual, and foreign-born and presence of multiple young children exhibits higher concentrations of poverty. While the young and never married tend to have higher concentrations of the economic well-being and social inclusion poor, their higher likelihood of being income poor as suggested by the official poverty line may not be because of the lack of capability. Obviously, the official poverty line exclusively focuses on the inadequacy of income. But the fact that income-based measurement outcomes equalize the poverty concentrations across different demographic groups uncovers the relevance of more comprehensive ways of measuring poverty. These similarities and differences suggest that it is important to investigate the multidimensional poverty incidence for different demographic groups, which will provide a basis for identifying the demographic characteristics of the different categories of the poor.

Table 5.10 Poverty among different demographic groups (US)
(Estimates based on the 2004 official poverty lines)

<table>
<thead>
<tr>
<th>Demographic groups</th>
<th>% poor</th>
<th>Demographic groups</th>
<th>% poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>12.70</td>
<td>Age</td>
<td>17.80</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td>Under 18 years</td>
<td>11.30</td>
</tr>
<tr>
<td>Male</td>
<td>11.50</td>
<td>18 to 64 years</td>
<td>9.80</td>
</tr>
<tr>
<td>Female</td>
<td>13.90</td>
<td>65 years and older</td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td>Family size&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>24.70</td>
<td>One</td>
<td>20.47</td>
</tr>
<tr>
<td>Asian</td>
<td>9.80</td>
<td>Two</td>
<td>8.56</td>
</tr>
<tr>
<td>Hispanic</td>
<td>21.90</td>
<td>Three</td>
<td>10.42</td>
</tr>
<tr>
<td>White</td>
<td>8.70</td>
<td>Four</td>
<td>9.96</td>
</tr>
<tr>
<td>Nativity</td>
<td></td>
<td>Five or more</td>
<td>15.57</td>
</tr>
<tr>
<td>Foreign-born</td>
<td>24.30</td>
<td>Children</td>
<td></td>
</tr>
<tr>
<td>US-born</td>
<td>12.10</td>
<td>No children under 18 years</td>
<td>6.30</td>
</tr>
<tr>
<td>Region</td>
<td></td>
<td>One child under 18 years</td>
<td>8.70</td>
</tr>
<tr>
<td>Northeast</td>
<td>11.60</td>
<td>Two or more children under 18 years</td>
<td>13.60</td>
</tr>
<tr>
<td>Midwest</td>
<td>11.70</td>
<td>One child under 6 years</td>
<td>13.90</td>
</tr>
<tr>
<td>South</td>
<td>14.10</td>
<td>Two or more children under 6 years</td>
<td>18.10</td>
</tr>
<tr>
<td>West</td>
<td>12.50</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup> Estimates cover number of families

Source: Census Bureau (2005)
<table>
<thead>
<tr>
<th>Demographic groups</th>
<th>Total (N)</th>
<th>Absolute poverty 10% target</th>
<th></th>
<th>Absolute poverty 30% target</th>
<th></th>
<th>Relative poverty</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Poor</td>
<td>Very poor</td>
<td>Abject poor</td>
<td>Poor</td>
<td>Very poor</td>
</tr>
<tr>
<td>Total (n)</td>
<td>2803</td>
<td>253</td>
<td>147</td>
<td>94</td>
<td>365</td>
<td>297</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18 to 30</td>
<td>541</td>
<td>13.86</td>
<td>6.84</td>
<td>5.18</td>
<td>16.45</td>
<td>15.34</td>
</tr>
<tr>
<td>30 to 60</td>
<td>1640</td>
<td>7.07</td>
<td>4.27</td>
<td>2.38</td>
<td>11.83</td>
<td>8.72</td>
</tr>
<tr>
<td>60 to 89</td>
<td>622</td>
<td>9.97</td>
<td>6.43</td>
<td>4.34</td>
<td>13.18</td>
<td>11.41</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>1276</td>
<td>10.09</td>
<td>5.89</td>
<td>3.93</td>
<td>13.16</td>
<td>11.59</td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>373</td>
<td>13.40</td>
<td>9.65</td>
<td>6.97</td>
<td>12.87</td>
<td>12.87</td>
</tr>
<tr>
<td>American Indian</td>
<td>26</td>
<td>23.08</td>
<td>23.08</td>
<td>7.69</td>
<td>19.23</td>
<td>18.50</td>
</tr>
<tr>
<td>Asian</td>
<td>100</td>
<td>11.00</td>
<td>4.00</td>
<td>4.00</td>
<td>19.00</td>
<td>11.00</td>
</tr>
<tr>
<td>Hispanic</td>
<td>75</td>
<td>12.00</td>
<td>9.33</td>
<td>9.33</td>
<td>16.00</td>
<td>8.00</td>
</tr>
<tr>
<td>White</td>
<td>2229</td>
<td>7.94</td>
<td>4.22</td>
<td>2.47</td>
<td>12.61</td>
<td>10.36</td>
</tr>
<tr>
<td>Nativity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreign-born</td>
<td>272</td>
<td>9.56</td>
<td>7.72</td>
<td>4.78</td>
<td>17.65</td>
<td>11.03</td>
</tr>
<tr>
<td>US-born</td>
<td>2531</td>
<td>8.97</td>
<td>4.98</td>
<td>3.20</td>
<td>12.52</td>
<td>10.55</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never married</td>
<td>618</td>
<td>12.30</td>
<td>7.12</td>
<td>5.83</td>
<td>15.86</td>
<td>13.43</td>
</tr>
<tr>
<td>Married</td>
<td>1474</td>
<td>6.58</td>
<td>3.80</td>
<td>1.56</td>
<td>12.01</td>
<td>8.89</td>
</tr>
<tr>
<td>Widowed</td>
<td>203</td>
<td>12.32</td>
<td>9.85</td>
<td>7.39</td>
<td>12.32</td>
<td>10.34</td>
</tr>
<tr>
<td>Divorced/separated</td>
<td>508</td>
<td>10.83</td>
<td>5.31</td>
<td>3.94</td>
<td>12.80</td>
<td>12.20</td>
</tr>
</tbody>
</table>
Table 5.11 (continued)

| Demographic groups | Total (N) | Absolute poverty | | | | | | | | Relative poverty | | | |
|--------------------|-----------|------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                    |           | Poor          | 10% target | Very poor | Abject poor | Poor | 30% target | Very poor | Abject poor | Poor | 10% target | Very poor | Abject poor |
| Region             |           |               |           |           |           |       |           |           |           |       |           |           |           |
| Northeast          | 447       | 5.82          | 3.80      | 1.12      | 12.30     | 7.38  | 12.53     | 6.94      | 4.25      | 0.89  |           |           |           |
| Midwest            | 696       | 7.61          | 5.17      | 3.02      | 13.51     | 11.06 | 18.68     | 12.93     | 4.74      | 3.02  |           |           |           |
| South              | 1083      | 12.28         | 6.46      | 4.43      | 13.48     | 12.19 | 22.99     | 18.56     | 6.09      | 4.16  |           |           |           |
| West               | 577       | 7.36          | 4.31      | 3.59      | 12.57     | 9.87  | 15.26     | 11.27     | 3.81      | 3.12  |           |           |           |
| Religion           |           |               |           |           |           |       |           |           |           |       |           |           |           |
| Catholic           | 655       | 8.55          | 5.34      | 2.14      | 11.30     | 10.23 | 17.71     | 13.74     | 4.27      | 2.44  |           |           |           |
| Protestant         | 1490      | 9.13          | 4.70      | 2.95      | 13.96     | 10.34 | 17.52     | 13.62     | 4.36      | 3.02  |           |           |           |
| Others             | 257       | 8.17          | 4.67      | 1.56      | 13.62     | 12.06 | 14.79     | 14.01     | 4.67      | 0.39  |           |           |           |
| No religion        | 401       | 9.98          | 7.48      | 7.98      | 11.97     | 11.22 | 26.18     | 14.46     | 8.73      | 6.48  |           |           |           |
| Households size    |           |               |           |           |           |       |           |           |           |       |           |           |           |
| One                | 704       | 9.09          | 6.53      | 4.83      | 12.93     | 8.95  | 22.30     | 12.50     | 6.82      | 4.40  |           |           |           |
| Two                | 1076      | 9.57          | 4.55      | 2.04      | 11.80     | 11.71 | 15.99     | 13.85     | 3.72      | 2.14  |           |           |           |
| Three              | 441       | 8.84          | 6.58      | 4.31      | 14.97     | 11.56 | 18.82     | 14.51     | 5.67      | 3.63  |           |           |           |
| Four               | 341       | 6.16          | 2.93      | 2.93      | 14.66     | 9.09  | 16.42     | 12.90     | 3.52      | 2.64  |           |           |           |
| Five or more       | 241       | 10.79         | 5.39      | 3.73      | 12.86     | 10.79 | 21.58     | 17.43     | 6.22      | 3.73  |           |           |           |
| Children under 18  |           |               |           |           |           |       |           |           |           |       |           |           |           |
| None               | 1934      | 8.89          | 5.43      | 3.21      | 13.08     | 10.50 | 18.20     | 12.82     | 4.81      | 3.05  |           |           |           |
| One                | 382       | 9.16          | 6.54      | 3.93      | 11.78     | 11.52 | 21.20     | 13.61     | 5.76      | 4.45  |           |           |           |
| Two                | 305       | 8.20          | 2.62      | 2.95      | 13.11     | 8.85  | 15.08     | 15.74     | 4.92      | 1.64  |           |           |           |
| Three or more      | 182       | 11.54         | 4.95      | 4.40      | 14.84     | 12.64 | 22.53     | 21.43     | 5.49      | 3.85  |           |           |           |
| Children under 6   |           |               |           |           |           |       |           |           |           |       |           |           |           |
| None               | 2451      | 8.69          | 5.26      | 3.10      | 13.02     | 10.40 | 17.79     | 13.10     | 4.86      | 2.94  |           |           |           |
| One                | 240       | 11.25         | 6.25      | 4.17      | 13.33     | 12.08 | 24.17     | 18.75     | 5.83      | 4.58  |           |           |           |
| Two                | 96        | 10.42         | 3.13      | 8.33      | 10.42     | 8.33  | 23.96     | 16.67     | 7.29      | 5.21  |           |           |           |
| Three or more      | 15        | 20.00         | 0.00      | 0.00      | 26.67     | 33.33 | 20.00     | 33.33     | 0.00      | 0.00  |           |           |           |
5.2.7 Characteristics of Multidimensional Poverty

Table 5.11 identifies poverty incidences using both absolute and relative criteria and suggests that the characteristics of multidimensional poverty do not vary across the absolute and relative criteria. Although which criterion to use is a fundamental question in poverty measurement, these large similarities in measurement outcomes suggest that perhaps even more fundamental may be the issue of using the appropriate basis to measure poverty. Since this analysis uses uniform basis, measurement outcomes appear to be less volatile to using alternative poverty lines or criteria.

Results indicate that multidimensional poverty is highly concentrated among the young, Blacks, American Indians, Hispanics, never married, widowed, and those with three or more children under six depending on the criteria used. While the multidimensional poverty incidence is consistently higher among Blacks, American Indians, and the widowed, it is also highly concentrated at a less stringent poverty level of 30 percent for the young, Hispanics, never married, and those with three or more children under six indicating their relatively better off positions. Additionally, the groups that exude generally higher concentration of multidimensional poverty include the old, females, foreign-born, divorced/separated, no religion, households with three or five or more members, and those with three or more children under 18 or with one child under six. These groups appear to have relatively high poverty incidence consistently across the absolute and relative criteria. These poverty incidences paint a picture of poverty characteristics that is consistent with those suggested by the conventional poverty research (Census Bureau 2005; Dalaker 2005; Danziger and Gottschalk 2005; Iceland 1997; South et al. 2005; Wilson 1996). Yet, some subtle differences exist especially in the degrees of poverty experienced by different demographic groups.

Table 5.11 reports that the younger generation less than 30 and the older generation over 60 exhibit much larger poverty incidences than do the middle-aged. Largely consistent with the concentration of poverty in general, however, the younger generation tends to have much higher concentration of abject poverty especially as indicated by the 30 percent target than the older generation. This is an indication that the older and especially the younger generations are not only less capable of generating economic resources central to securing one’s material quality of life, they also exude

---

17 This is the case between the absolute 10 percent target and the relative criterion. The absolute 30 percent target provides much larger poverty estimates. There exist some differences even between the former two criteria, however, especially in terms of the American Indians, Hispanics, and two children under six.
lower access to inner and relational resources. At the same time, larger percentages of these same groups are designated as the very poor given their risk of being the abject poor and especially as the poor signifying inadequacy in at least one of the three poverty dimensions. Despite this, the overall trend is highly predictable in terms of the movement of people from one poverty status to another given changes in the percent poverty targets.

While there are considerable differences in the incidence of multidimensional poverty between male and female groups, there are even smaller differences in terms of the concentration of abject poverty. The concentration of the very poor and especially poor population increases for both of these groups consistent with the movement of the overall population. The evidence here does not provide enough support to the historically established relationship between gender and poverty following the conventional poverty approaches. Yet, the fact that not all respondents are householders postulates that relatively small differences observed here do not represent the poverty status of households.

Researchers find that race effectively operates across many social issues. This analysis suggests large discrepancies between the Whites and other minorities of which the differences are stark especially with Blacks, American Indians, and Hispanics. Especially vulnerable are the Hispanics who have large concentrations of abject poverty consistently across all three poverty criteria. Yet the concentration of abject poverty increases up to 50 percent among American Indians manifesting their much narrower access to resources when the less stringent 30 percent target is used. The Asian population that has relatively lower concentration of poverty than the White population also manifests much higher levels of poverty when the 30 percent target is used. While most of the poor following the 10 percent target and relative criterion may have been identified as the abject poor following the 30 percent target, the fact that quite large percentages of the population enter the very poor and especially poor categories as suggested by the 30 percent target support the thesis that poverty rates may linearly increase among most of the racial groups. In case of American Indians and Hispanics, however, such linearity does not hold as the groups of the very poor following the 30 percent target declines thereby enlarging the group of the abject poor.

Data show some differences in poverty incidence between the native and foreign-born populations as the poverty incidence for the latter is higher across different criteria. This difference appears to be evenly distributed across all poverty categories. Consistent with the smaller differences in unidimensional poverty incidence from the economic well-being and capability standpoints, however, the differences do not appear to be highly
alarming as in other demographic groups indicating that the more important source of poverty concentration is something other than nativity. Despite manifesting sizably lower levels of social integration, which is not unexpected given their immigrant status, the foreign-born population does not demonstrate considerably lower access to resources.

Marital status is related to poverty incidence with the divorced/separated, never married, and widowed demonstrating much higher poverty rates compared to the married. Especially vulnerable are the widowed and never married with the former manifesting a relatively higher incidence of abject poverty. This is justified given the enormous negative financial shocks that their widowhood may have imposed with expanding responsibility for which they may not have been prepared. Their higher likelihood of being poor in general following the 10 percent poverty target increases when the relative criterion is used and yet remains unchanged when the 30 percent target is used. The poverty status of the never married, however, tends to be correlated with their young age, and single member households with further implications for the levels of economic, inner, and social resources they can garner to avoid lower quality of life. The rate of poverty among divorced/separated also falls relatively ahead of the married with much larger size of the abject poor following the 30 percent poverty target, which is consistent with the fact that the incidences of the poor and very poor are much higher following the 10 percent target and relative criterion. Most if not all of them may have turned out to be the abject poor following the 30 percent target. While these statistics report different incidences of poverty for different marital statuses, whether poverty status changes as a result of marital status or marital status changes as a result of poverty status is debatable. The fact that those unable to enter or maintain marriage economically and otherwise will not be in the group of the married supports the lower poverty incidence observed for the married.

The regional differences in poverty rates are also consistent across different criteria. The West and especially the Northeast have lower poverty rates with the Midwest and the South demonstrating relatively higher poverty rates. The highest poverty incidence occurs in the South with over 38 percent of the total United States population. This further demonstrates that the abject poverty concentrations are comparable following the 10 percent target and relative criterion and much higher following the 30 percent target in this region. This is consistent with its higher concentration of the poor and very poor in case of the 10 percent target. Also, despite comparable poverty incidence following the 30 percent target between the Midwest and South, all of the higher incidences for the South appear to concentrate on the very poor and especially the abject poor categories thus making these figures look higher for this region. It may be the urban dy-
5.2 Empirical Analysis

Dynamics of the Northeast and the West that lend support to have better access to resources for most of their populace. But just like marital status, it is difficult to disentangle the cause and effect relationship between geographic region and poverty status.

Data suggest that religion does not make much difference in terms of poverty incidence especially given highly similar poverty rates for the catholic, protestant, and other religions that are consistent across all poverty categories and criterion. At the same time, those embracing no particular religion appear to demonstrate sizably higher poverty incidence. The difference appears to be more pronounced in case of the abject poor category. This provides a solid basis for the argument that those embracing no particular religion, a surprisingly sizable group, demonstrate higher concentrations of poverty than those embracing a religion. While the relationship between having a religious affiliation and demonstrating a higher level of civic/cultural aspect of life is justified given their participation in religious activities, it is interesting to find that they score a higher level of the material, inner, and relational resources in general.

Finally, poverty incidence varies in the United States by household size and number of children. Households that have the lowest rates of poverty include four or two members with four member-households demonstrating even lower levels of poverty especially following the 10 percent target and relative criterion. While households with one, three, or five and more members have comparable levels of poverty, the concentration of different categories of the poor is highly unpredictable indicating that poverty status does not vary considerably by household size. From the standpoint of number of children, on the other hand, poverty rates are higher among households with either one or three or more children under 18 or households with more than one child under six. Poverty rates are higher for those with three or more children under 18 across all criteria but they are much higher following the 30 percent target. At the same time, the concentration of poverty appears to be scattered around with no specific trend on the number of children. The case of children under six is somewhat different as the poverty incidence is higher for the households with three or more children. When it comes to the concentration of poverty, however, while those with no children are clearly better off, those with children have highly similar patterns of poverty. Although those with three or more children have much higher concentration of poverty, the abject poor group is relatively small and the inclusion of only 15 cases in this category does not lend enough support for a highly conclusive claim.
5.3 Policy Implications

In the United States, poverty has never been linked fully with broader issues of quality of life. If it has, it has only concerned the economic aspect of life concentrating especially on the economic ability to afford the basic necessities. The official poverty thresholds designed in the 1960s, which still influence the way researchers and policymakers measure and analyze poverty, specifically focus on the level of income necessary to survive. Defining basic needs in terms of some bare minimum on food consumption, these official poverty lines provided an equal amount of allowance for housing and another equal amount of allowance for other necessities. While the original poverty lines tried to adopt absolute as well as relative concepts of poverty by setting them at approximately one half the median income (Fuchs 1965; Orshansky 1965), their more recent manifestations represent neither absolute nor relative concepts (Glennerster 2002). They are inadequate in the absolute sense, as the poverty lines do not provide adequate means to maintain a basic minimum life given current prices. They are inadequate in the relative sense because the existing poverty lines represent less than one third the median income, far lower than the 60 or even 50 percent the median income that governments in other advanced countries embrace as official poverty lines. Yet the official poverty lines are used for almost all policymaking and administrative purposes in the United States. While alternative poverty lines are developed and used for some un-official purposes, they all have followed the notion of economic ability in its strictest sense.

In the meantime, the country has gone through considerable economic transformation thus changing the structure of economic and social distribution with the redefined concepts of work, family, education, and economic reward. Consequently, economic inequality has registered unprecedented highs in modern America with the Gini index climbing almost seven points after the 1960s to 46.6 by the early 2000s and the ratio of the income share of the top to bottom quintile rising by a factor of over three to 14.31 (WIDER 2005). Part of the reason has been massive globalization that caused the economy to replace most of its manufacturing industry with service industry. This, coupled by unprecedented advancement in technology, erosion of social and community fabric, and increasing apathy amongst the general public toward political systems and governance, has changed the way quality of life is viewed. In the modern era marked by unparalleled human progress, quality of life is not confined to economic ability to meet material needs, it goes well beyond.
This multidimensional poverty analysis focusing on the United States provides important policy implications. The remainder of this chapter discusses how the findings derived here can contribute to better understand the issues and policies relevant to addressing poverty. Also relevant are the findings concerning the multidimensionality of poverty as well as specific poverty categorization that include more detailed information than do the traditional poverty measurement outcomes. This together with the demographic characteristics of the different categories of the poor will be useful for both policymaking and policy targeting.

### 5.3.1 Focusing Poverty

The empirical analysis presented in the previous section supported the multidimensional thesis of poverty. Poverty is found to be clearly a multidimensional construct in the United States that can be accurately measured by using the framework of multidimensional resources. However defined, poverty is seen as the manifestation of inadequate means or resources. Measurement outcomes using the multidimensional approach are accurate providing the information that closely reflects how poverty is created and sustained.

Capturing the material, inner, and relational resources, this analysis shows that poverty research in the United States needs to move in the direction of utilizing comprehensive information. The usefulness of the framework rests on the interrelationships that are allowed between each possible dyad of the five poverty dimensions. These interrelationships are justified given relatively strong correlations among the poverty dimensions, indicating that while the poverty dimensions are positively correlated, they are not perfectly predictable using each other. This serves as a compelling evidence for using the multidimensional approach.

There are specific interrelationships that appear to operate in this particular context. While economic inclusion does not appear to affect any other poverty dimension, it is affected by all other dimensions at varying degrees. Where as economic inclusion constitutes only a part of social inclusion that has a justifiably greater constitutive value, the former has more instrumental value to make happen other results including the material quality of life. In this sense, economic inclusion is a policy tool to enable one to achieve material well-being and equalize opportunities. What matters is the degree as well as the quality of attachment with the labor market. The analysis finds occupational prestige, occupational industry, work status, and self-employment status to significantly hold commonalities needed to measure economic inclusion.
Other poverty dimensions are equally relevant to producing one’s quality of life especially through their strong interconnectedness. There is a direct effect that flows through capability, economic well-being, civic/cultural inclusion, and political inclusion but the strongest effects in this particular context run from capability to economic well-being and from civic/cultural inclusion to political inclusion. Since civic/cultural and political inclusion have a high commonality with both gauging the extent of involvement in the public or social activities and thus relational resources, the most important relationship involves capability and economic well-being. Similarly, because capability helps one stay informed and make informed decisions to achieve valuable functionings, the pivotal role of capability or freedom on determining the overall quality of life is highly justifiable. Although the chain of empirically supported relationships puts the cases from Kathmandu and the United States apart with the former lacking simultaneous relationship of any form, this large role of capability holds in both cases. Other large effects include those of political and civic/cultural inclusion on capability and economic well-being on political and civic/cultural inclusion signifying the tight though mostly unidirectional relationships of material and inner resources with relational resources.

This analysis suggests that income relative to the family size as well as some subjective assessment of the respondents on the adequacy of income relative to their household needs are important measures of economic well-being. These are not perfect measures and therefore need to be broadened to capture the true sense of economic well-being. But the policies need to include measures that can increase the resource base relative to their household needs. Additionally, because it is the individuals to experience poverty, their own assessments can provide valuable cues to their access to material resources.

This analysis supports the extant, specifically targeted policies such as the Earned Income Tax Credit, Food Stamps, Supplemental Security Income, and Temporary Aid to Needy Families. Policies like these are targeted at the specific groups manifesting low incomes as well as a low prospect for increasing income given the physical capabilities and applicable household conditions. Especially interesting are the means-tested components of the support that enable policy administrators to utilize such information as the number of dependents. Yet, they fail to respond to the relative as well as subjective needs as indicated by those who experience poverty. The meager amount of monetary support the beneficiaries receive, thereby tying it to the existing poverty thresholds, is highly inadequate to meet family needs. Although the benefits under Medicare, Medicaid, and other in kind programs partly respond to the varying healthcare needs of the elderly population, they are either unavailable (to the non-elderly
5.3 Policy Implications

population) or inadequate to meet the actual needs as the daunting experiences of a large part of the recipients indicate. Added to this is the issue of stigma attached to receiving many of such supports indicating that the existing policies do not effectively address the material quality of life concerns. While issues such as stigma call for more universal approaches, programs that incentivize avoiding something to qualify for a financial support are also likely to fail. Targeting based on the capability and social inclusion measures, on the other hand, where increasing capability and integration would be the solution, would be more likely to succeed, thereby de-incentivizing avoiding good health or education to receive healthcare or educational support.

Any research attempting to accurately identify poverty status needs to assess the degree of freedom or the relational resources. Policies aimed at improving the quality of life need to incorporate measures to expand capability as well as the meaningful attachment to the economy, polity, and society. One’s status on education, health, self-respect, and occupational prestige can be improved by strengthening the social infrastructure as well as the cultural assumptions circumscribing the level of respect that one is likely to receive in the community. It is one thing to attain education, which people can do by all means provided that it matters to them highly as is happening in the United States given recent labor market changes. Yet, what level of respect one should enjoy given the type of education and job that one has is highly hierarchical. It may be helpful to think of it in terms of valuing the work that one engaged in an occupation with the least amount of prestige has for which the entire cultural assumptions and monetary rewards may need to be restructured. The primacy of the inner strength and resources among all types of resources suggests that the United States needs more not less of the programs and policies like the Heat Start or No Child Left Behind that attempt to educate the offspring born to people in poverty. While education has a value added thus positively reinforcing prestige and freedom one can enjoy, the presence of highly hierarchical structure makes the outcomes largely deterministic. But the influence of family background goes beyond the role of education itself with socio-demographic identities and resources sometimes taking precedence over merit, quality, and ability. Issues such as wage structure and other labor market conditions need to be restructured thus narrowing the gulf between those on the top and those on the bottom of the distribution of opportunities, prestige, and reward.

Relevant research and policies around social inclusion also need to focus on the social advantages or disadvantages by which the individual functionings and performance are conditioned. While social inclusion indicates how economically, politically, and civically/culturally integrated one is in
the overall society, a higher level of attachment should be the goal of public policies. They need to increase entitlements such as the basic social and political rights and provide other means for individual development and progress. Where as talking about equality of opportunities and political rights has been the norm in modern societies, with legal provisions directed at safeguarding it, issues exist concerning the application of these procedures at the practical level as well as the adequacy of policies to genuinely equalize opportunities. The free market, as well as the modern democratic political system, underscores the economic and political freedom. But there is growing evidence on the mutual reinforcement of economic and political inequality at the practical level. This challenges the overall theses of economic and political equality in process resulting in just and fair outcomes, thus suggesting that a fundamental shift may be necessary to genuinely equalize the outcomes especially when such outcomes have large instrumental values to realize other processes and outcomes.

From the policy standpoint, gaps in employment as well financial opportunities and occupational prestige need to be narrowed for more egalitarian distribution of economic inclusion. It has been almost imperative to narrow the gap in economic outcomes in order to apply more just and fairer frameworks for people to operate in. Political equality, for example, is a must in democratic societies not only in the sense of opportunity that one has to act politically but more importantly that there is sufficient framework to ensure one’s meaningful participation. Participation needs to go beyond electoral participation, which does not provide any meaningful power to the public especially when electoral democracy is indifferent from the outcome that does not reflect a true system of representation. Policies need to ensure political equality in both process as well as outcome so that one’s undue influence does not arbitrarily determine the fate of the masses. Activities such as joint or communitywide activities, membership to formal or informal groups or organizations, and maintaining personal and social ties and networks are particularly important as they provide the means for social belongingness as well as the networks necessary for upward personal growth and enrichment. Policies encouraging the interface between individuals and social institutions can have real impacts on how advantageous or disadvantageous positions people are experiencing as well as on how these same social institutions are shaped and re-shaped.
5.3.2 Targeting the Poor

The multidimensional poverty outcomes suggest that poverty incidence will vary considerably in the United States depending on the specific poverty targets used. There are considerable differences in the size of the population in different categories of poverty, signifying that much larger proportion of the population in poverty tends to be the abject poor when a less stringent (30 percent) poverty target is used. This is an indication that a large portion of the population tends to be on the verge of being extremely poor when a more stringent poverty target is used which would then turn out to be abject poor using a less stringent cutoff point. Because setting targets for the population in poverty is to a large extent a political or policy issue, where to draw the line has implications not only on the size of the poverty population but on the size of the specific groups of poor as well.

These specific poverty outcomes provide immensely useful information for setting the policy priorities. Albeit with very wide margins, the 10 and 30 percent poverty targets estimate the size of the abject poor population with the relative criterion providing another plausible estimate. The population in this category experiences the most entrenched degrees of poverty as indicated by the inadequate qualities of life in all three dimensions and thus needs extensive policy resources. Given the relative indifference of the contemporary government to relaxing the degree of state support provided to the poor, it has been almost unlikely to introduce policies to effectively address poverty issues with comprehensive measures. The identification of the hardcore poor population needing a comprehensive policy package and resources to address their predicaments can be highly valuable for the government aspiring to alleviate poverty.

The very poor population on the other hand manifests inadequate quality of life on any two of the three dimensions. While not already there, this group is on the verge of abject poverty and can slip into it if unable to rescue itself by utilizing the strength it has on one of the dimensions. If one is poor by the access to material and inner resources, for example, it may capitalize on the relatively better position on social inclusion that it enjoys and demonstrate important progress on the other two dimensions. At the same time, this group is also considered very poor reflecting on its poverty status on two dimensions experiencing difficult time reversing the course on them. People can fall into poverty for various reasons including unemployment, medical condition, family breakdown, or loss of important family member, in which case the symptoms would be unfold. A bifold poverty status suggests that the poor status is not a result of just one particular turn of events. Because the problem is more complex, its solution
needs to be more comprehensive. While this group tends to be relatively small in size, identification of this group of poverty population provides a value added to policymakers, with a good idea of the actual policy prescription needed together with the identification of the size of the population.

The poor identified as poor on one of the three dimensions may be the last group to receive policy priority. This group tends to be relatively large in size as the likelihood of exuding inadequate access to resources on any one of the three dimensions is high given the moderately high correlations among them. But this is precisely the group that may need the least amount of policy resources as it may have occurred as a result of slightly narrower access to resources on one particular dimension, for which there always exists some chance. Nevertheless, the specific policy prescriptions may greatly vary depending on the specific dimension on which one fares poorly.

The findings regarding the demographic characteristics of the poor following these unidimensional approaches would be helpful to understand, on which specific groups the policymakers need to focus. Because different demographic groups tend to experience different degrees of resourcefulness, this information will provide a basis for understanding the possible causes of and cures for poverty. Policy resources may also have to be targeted at specific demographic groups, depending on the concentration of unidimensional poverty.

This analysis registers, for example, that economic well-being poverty is highly concentrated on the young, unmarried, Blacks, American Indians, and those with three or more young children. While the young and the never married are likely to earn low incomes and thus to be in economic well-being poverty, the latter three groups deserve special policy attention. Interestingly, these latter groups exhibit high concentration of capability poverty along with the widowed. The demographic characteristics of the social inclusion poor are somewhat different, however, running along racial lines including the Blacks, American Indians, and Hispanics. While the lower levels of social inclusion among the young are not unexpected given their age, their racial manifestations call for more inclusive policy measures to dismantle the discriminatory practices deeply rooted in the American tradition.

The finding that the multidimensional poverty is variously concentrated among different demographic groups offers more specific policy relevance. Groups with consistently high concentrations of multidimensional poverty across both absolute targets, for example, include the Blacks, American Indians, Hispanics, and widowed where as those with relatively higher likelihood of being poor, on the other hand, include the young and old, female, migrants, never married, divorced/separated, South region, no
religion, household size of three or five or more, and having three or more children under 18 or having either one or three or more children under six. These represent the groups poverty reduction policies ought to target when they are based on the multidimensional approach.

More important than these, however, will be the policy implications that more specific multidimensional poverty categorizations provide. With the highest abject poverty incidence across both poverty targets, the Hispanics set themselves apart from other racial groups. Other groups including the young and old, other non-White races, foreign born, never married, widowed, South region, no religion, single member households, and having three or more children under 18 or one or two children under six have disproportionately higher abject poverty concentrations, with some other groups showing slightly higher incidences following one of the poverty targets. Because these groups necessitate the most extensive package of policy resources for improvement in their access to resources, the government ought to focus on these groups as strategically important.

The identification of somewhat less risky group of the poor, the very poor, is also important. While the classification of respondents into these three poverty groups may have made the picture slightly over-specific, the concentration of the various demographic groups in the very poor category uncovers information useful for policymakers. Although this group is slightly less risky than the abject poor, they are one dimension away from being the abject poor and thus need relatively extensive amounts of policy resources. Many of the groups showing disproportionately higher concentration of the abject poor also exhibit relatively higher concentration of the very poor. But the concentration appears to be somewhat less consistent across different criteria suggesting that the likelihood of falling into the very poor category may be less systematically related to demographic characteristics. Despite this, policies would have to focus on groups including the young and old, Black, South region, household size of three members, having one child under six or 18 for a more consistent concentration of the very poor.

With regard to the poor, too, it is surprising to find that those with three or more children under six exhibit disproportionately higher likelihood of being in this category as suggested by all criteria. While the young, American Indians, Asians, Hispanics, never married, South region, and having three or more children 18 are consistently more likely to be poor, these likelihoods are not particularly alarming. Although this group is different from the non-poor, their relatively less entrenched poverty status attracts less policy attention as they are conceived to need only selective policy resources. In reality, however, this group is more likely than the rest of the population in poverty to organize and to more actively voice their con-
cerns, making them more likely to draw policy attention. Policymakers too may be more inclined to pay attention to the needs of this group as they necessitate only a small amount of policy resources for further improvement in their quality of life.
6.1 Overview

Findings discussed in the previous chapters demonstrate that the multidimensional approach including economic well-being, capability, and social inclusion offers a more comprehensive and more accurate picture of poverty. This book makes theoretical, methodological, and practical contributions to poverty research by laying out important groundwork and by applying it in a truly multidimensional framework. Further theoretical discussions as well as application in poverty research and policy planning will be needed to improve this approach. This chapter offers some general observations based on the application of this framework in two different contexts and discusses the findings in light of some related theoretical debates. Additionally, it provides directions for further development and wider application of this multidimensional approach in different contexts.

6.2 Multidimensionality of Poverty

The argument that poverty is a multidimensional construct is well established. It has drawn considerable theoretical attention since Sen’s (1985a, 1987) argument that the focus on monetary measures of poverty was inadequate and misguided. Many have argued for or attempted to develop multidimensional approaches to measure poverty, going beyond popular economic expositions (Bourguignon and Chakravarty 2003; Chakravarty 1983; Deutsch and Silber 2005; Dewilde 2004; Moisio 2004; Ravallion 1996; Tsui 2002). While these works unquestionably lay some foundations, their multidimensional constructs do not go far enough toward creating a truly multidimensional approach. Neither do they make any attempt to test if the multidimensionality of poverty hypothesis empirically holds.

The multidimensional approach developed and applied here fills this void for a truly comprehensive framework. This framework incorporates multiple dimensions of poverty focusing on the goods-centered, individual-centered, and society-centered elements of life, with roles in creating
poverty as well as in informing on potential policy prescriptions. Although the approach was used with data from Nepal and the United States, it can easily be replicated in other contexts.

The finding that the concept of poverty is in fact multidimensional involving economic well-being, capability, and social inclusion makes important contributions to poverty analysis. It is not only by providing empirical evidence to the long-held notion of multidimensional poverty itself. More importantly, it is by specifying the different dimensions of poverty as suggested by existing research and establishing their empirical relevance. In this approach, the economic well-being measures, albeit indispensable to the assessment of one’s poverty status, cover only a part of the story, thereby even downplaying the inequality space used to measure poverty. The remaining part of the framework invokes individual capability issues as well as social inclusion issues. How much each of the three dimensions matters when it comes to assessing one’s poverty status, however, essentially involves value judgments specifically regarding how much weight a particular society places on each of these dimensions. In growing-urban settings like Kathmandu, for example, social inclusion and especially political and civic/cultural inclusions might not matter as much as other dimensions since people tend to somewhat distance themselves from their political and social milieus. But these issues might be even more crucial in Western societies like the United States largely due to the domination of the individualistic value systems and culture with dwindling civic and political participations.

This study demonstrates with a high degree of confidence that the concept of poverty applies not only to economic well-being issues, but to the capability and economic, political, and civic/cultural inclusion issues as well. Capability, for example, has already been used as an alternative conceptualization of poverty or deprivation. The concept of political inclusion poverty is also underscored as deserving serious attention as those alienated from the political processes tend to deprive themselves of political freedom, especially in making their voices count in their own governance. A similar observation is true for economic and civic/cultural inclusion, as these constitute the means by which one can secure quality of life or well-being. The relatively tight relationships between various poverty dimensions indicate that they are integral parts of poverty measurement.

1 This is the case since the growing migrant population, as well as the youth, seems to be ambivalent about the need to be politically and socially engaged. In reality, however, it is profoundly important as political and social networks are increasingly required to secure jobs and promote social belongingness.
This multidimensional perspective is especially useful in identifying the poorest of the poor or the abject poor segment of the population. The conditions of people who are simply poor may vastly differ from those of others who are very poor and abject poor. More comprehensive sets of information need to be used to identify the abject poor who do not demonstrate any signs of escaping poverty as indicated by their poor performance on various poverty dimensions. People might have low income despite having some education, or because of low education, but the performance of those with low education might directly depend on the particular policy environment, minimum wage laws for example. Similarly, those who are socially more excluded will find it more difficult to increase their income or education that would ameliorate the level of their overall well-being and thus need more extensive policy support. The framework used in this analysis informs policymakers with regard to both the structure of poverty and the type of policy measures needed to address it.

6.3 Material Resources and Economic Growth

Findings suggest that per capita income, per capita consumption, and adequacy of income for food and other expenses are appropriate indicators of economic well-being. While consumption and subjective views on the adequacy of income for food and other expenses are more direct and sometimes more influential indicators of material resources, income is at the center of the entire debate on the material quality of life. Income is an important determinant of consumption since income is essential to secure consumption of goods and services. Where as both quantity and quality of consumption matter for a decent quality of life in the twenty-first century with enormous choices available in the market, income is still the prerequisite for consumption. How much income or consumption is needed, however, depends on the relative and subjective criteria applied with some societies like Nepal placing high values on these. More important than income itself is the relative position in which how much one has matters as does how much others in the society have.

Yet, much of the discussion on poverty relates to income and economic growth, with the assumption that poverty resulting from a lowness of income is largely a function of the lack of adequate economic growth and development. The prescription especially in the developing world is to accelerate economic growth, which will create income-generating opportunities and reduce poverty. This is highly relevant given their desperately impoverished situation, which once led Ahluwalia (1974) to conclude that
people were poor because they lived in poor countries. More recently, countries like Nepal have registered an impressively declining poverty incidence primarily led by massive remittances from foreign employment (World Bank 2005, 2006; CBS 2004). However, this same prescription does not appear to be relevant in many advanced countries with abundant resources and enduring economic growth. Despite many ups and downs in the economy, for example, the poverty incidence has remained highly consistent for the past few decades in the United States. Poverty lines set at much higher levels than those in developing countries at least in absolute terms do not fully explain why poverty incidence remains consistently sizable in advanced countries. One would normally expect the overall capacity of these countries to be more efficient at dealing with poverty, thus keeping the poverty incidence low if not eliminating entirely. Although it is the income or consumption based approach that is applied in all growth and poverty discussions, how one interprets this relationship depends in a large part on the specific poverty measure used.

While income is important to one’s life, economic growth does not always lead to an income growth for the poor, who need it the most. Only if growth is accompanied by a meaningfully redistributive mechanism that growth can play an important role in the lives of the poor. In the United States, for example, the economic growth and the prosperity of the 1980s and 1990s have not significantly alleviated poverty because they were accompanied by more inequality and more, not less, regressive distributions. More importantly, this study suggests that economic growth and well-being constitute only one of the dimensions of poverty, viewed from the

---

2 Whether economic growth led by foreign remittances will be sustainable is debatable. But, according to survey estimates, poverty incidence dropped 11 percent from 42 percent in 1995/1996 to 31 percent in 2003/2004 nationally when measured by official poverty lines. Using the international poverty line of one dollar, on the other hand, the country saw a whopping 15 percent decline to 24 percent during the same period.

3 While it has fluctuated from 11 to 15 percent, Current Population Surveys show that the official poverty incidence between 1970 and 2005 was exactly the same—12.6 percent (DeNavas-Walt et al. 2006).

4 After accounting for the cost of living differences, there is strong opposition that the official poverty lines that are operational in the United States are becoming humiliatingly low in the recent years (Brady 2003; Elwood 1999; Glennerster 2002).

5 The marginal income tax rate, one of the indicators of redistributive policy, consistently declined from the highest of 70 percent in the 1970s to the lowest of 28 percent in the late 1980s, remaining around the 30s in the 1990s and onwards (Tax Foundation 2005).
overall quality of life standpoint. The material resources are mostly a result dimension of poverty with their power in determining the relational and especially inner strength and resources. But because the capability and social inclusion dimensions may play even more significant roles in determining quality of life, with ability to largely influence one’s economic resourcefulness, policymakers may need to refocus their attention from employment opportunities and economic growth to factors that derive them. While the contemporary discussions focusing on pro-poor or labor intensive growth (UNDP 2000b; World Bank 2001) have practical policy implications, this multidimensional analysis shows the prominence of inequality and redistribution issues that have large impacts on the quality of life of the poor.

6.4 Inner Strength and Resources and Education

Findings suggest that education, prestige, self-respect, nutrition, and gender equality are important measures of capability, indicating one’s inner quality of life. Although the overall health condition and occupational prestige rank high in importance, educational attainment has much broader relevance. Education largely drives one’s status on health and prestige as educated people are more likely to make informed decisions and to pursue better life choices, thus increasing the quality of freedom they enjoy and leading to the life they value and have reasons to value. More educated people, for example, can be expected to demonstrate a better health condition as supported by a wider spectrum of information they have access to and can utilize. Their informational, educational, and professional capacity also allows them to obtain wider recognition at work as well in the community. It is the knowledge part of education that makes the difference indicating that the entire issue of capability enhancement rests on the efforts to expand choices and to make informed decisions to improve the quality of life.

Findings here reaffirm the significance of education in alleviating poverty as it renders a relatively large effect on economic well-being and social inclusion. At the international scale, studies have shown that educational attainment especially at the primary level and of women can augment economic growth (Self and Grabowski 2004). The World Bank (1990) and UNDP (2000b) emphases on primary and women’s education represent the contemporary focus of international development partners to reduce poverty in developing countries where the difference is stark between those with education and those without.
Education has direct and indirect roles in poverty reduction. Directly, poor education or a lack of it manifests a poor quality of life, denying one the capability and freedom considered indispensable in modern societies (Sen 1993, 1999; Tilak 2002). Education is a very important life-long endowment, which determines how economically, politically, and civicly included one is in the economy and society. In the modern era, one cannot imagine a decent access to material and relational resources without education.

Education also enhances self-respect and prestige. Self-respect or prestige is perhaps the most important factor affecting the state of primary social goods construed by Rawls (1971), for example, including rights and liberty, power and opportunity, and income and wealth. While income and wealth are central to economic well-being, self-respect is ‘something that any rational person is presumed to want’ with implications on such inner strength and resources as the sense of one’s value, self-belief, or self-confidence (O’Shea 1999:235).

Human capital theories widely used to explain individual level differences in economic well-being of people and families clearly indicate that one’s higher level of educational attainment generally leads to a higher level of skills, productive knowledge, and opportunity that are valuable in economic performance (Becker 1964; O’Shea 1999). The relationship between education and economic well-being can be easily established using individual level data as those with higher education will secure higher income or better living standard.

Nevertheless, the notion of human development or human capability, which places the highest priority on education, goes beyond the economic value of education. Rather than ‘the agency role of human beings’ with relevance in advancing production possibilities and rather than ‘the consumption nature of education’ with usefulness in economic contribution, the human development or capability approach recognizes the intrinsic value of education especially as human rights, opportunity, and entitlement (Sen 1993, 1999; Tilak 2002). Those focusing on social capital, for example, stress the importance of education with the argument that the process of acquiring education offers a variety of non-economic benefits such as bodily or verbal manner, taste, and interest that enable one to assimilate in a distinct social class (Bourdieu 1986). While this has implications for social stratification with more and better—in terms of quantity as well as quality—educated individuals placing themselves into a different social stratum, a more widespread availability of education would tend to somewhat minimize social inequality. This supports the fact that education and economic inclusion issues remain largely interrelated, with capability enabling one to become highly included in the mainstream economic activities.
Findings conspicuously suggest that policymakers seeking to address poverty ought to enact policies that enhance individual capabilities. While education, health, prestige, self-respect, and gender disparity collectively measure capability, the major focus of poverty reduction policies needs to be especially on expanding educational opportunities for the masses. Where as education is often perceived as a double-edged sword, as more education especially accompanied by a lack of economic growth can exacerbate unemployment, it can contribute to poverty reduction by promoting economic and social entrepreneurship and ensuring political freedom. Above all, the role of education is highly relevant in improving the quality of life as it enhances freedom and inner strength and resources.

6.5 Relational Resources and Participation

The relational resources embody the social fabric fundamental to a decent human life, with the degree of economic, political, and civic/cultural inclusion or integration in economy, polity, and society constituting their major elements. Used here to capture the relational resources, the concept of social inclusion is essentially broad, encompassing more than the concept of poverty itself. Its application in measuring poverty clearly expands the purview of poverty, suggesting that it would have to be defined necessarily in a more comprehensive way.

Social inclusion is a relative term as some are more likely to be excluded than others. But societies can be relatively equal or unequal in terms of the magnitudes of inclusion they maintain or tolerate. Social exclusion is a consequence of the dominant society not integrating some segments of the population. The focus here is on societies and social structures. In aggregate, they perform the role of ‘agency’ that contributes to social exclusion of certain individuals or households (Grant et al. 2000; Martin 2004). The discussion on social exclusion places emphasis on minimizing the power of the agents contributing to the exclusion of some segments of the population (Martin 2004). The excluded are largely denied the access to many basic social and political rights including a decent living standard, work, and participation in governance. Nevertheless, the ‘underclass’ debate focusing on deviant behavior and lack of work ethic and moral values on the part of the poor in the United States (Mead 1992; Murray 1984, 1999) provides an impetus for the argument that sees social exclusion resulting from people’s rational, voluntary decisions to avoid government programs and incentives.
In developing countries like Nepal, where ensuring people’s basic rights has always been a tough priority, social inclusion is a means as well as an end to a meaningful human life. It is a means as inclusion in the labor market and political and social systems provides an opportunity to acquire resources indispensable to improve the quality of life either through enhancing capability or more directly through jobs and increased earnings. Similarly, it is an end since freedom and basic political and social rights are considered indispensable for a decent standard of living in modern societies. Due to the availability of very minimal and often inferior quality, if any, of social services including education and health care, however, it is next to implausible to conceive social exclusion in Kathmandu other than the result of involuntary decisions and choices. One does not find any incentive to shun labor market, political participation, and social engagement especially in the complete absence of social insurance. Political freedom becomes only titular when people do not have the capacity to internalize it.

While the state has more extensive capacity as well as mechanisms to offer social programs, social integration has obtained a low policy priority in the United States. There are a number of social programs including Social Security, Medicare, Medicaid, and the like that are designed to prevent poverty. Yet, the limited support targeted at those who are already poor comes in the form of ‘welfare handout’ often as a very narrow, stigmatic, and specifically designed economic well-being measure. One’s social relations are conceived to be within the purview of individuals. Despite realizations that issues such as poverty result from social pathologies and dis-functions, policy measures have not included social integration as a major goal primarily with the conviction that it is one’s choices, not any standard policy measures, which can make the difference. Social integration has, therefore, never entered the standard policy lexicon in the United States.

The relational quality of life essentially deals with participation in the economy, polity, and society. In this sense, it is the degree or the quality of participation that distinguishes different relational qualities. At the same time, the notion of social inclusion applied here goes beyond participation, invoking upon the structural and institutional barriers to participation. These barriers play a major role in issues such as the structure of the labor market, the financial and credit arrangements, working conditions and pay structures, political engagement and activism, electoral participation, and participation in social and collective activities. Unlike with improving the material and inner qualities of life, finding appropriate measures to tackle the relational quality of life can be more daunting. And this is precisely for the reason that social integration necessitates breaking structural and institutional changes than do other qualities of life enhancing measures.
6.6 Future Directions

The multidimensional approach to poverty constitutes an important methodological and substantive development in the field. Although poverty researchers have widely recognized the need for a multidimensional approach and although many attempts were made in the recent past to measure multidimensional poverty, a comprehensive approach like this was long overdue. This groundbreaking framework uses established theoretical arguments and developments around poverty measurement so that the approach is internally valid. While the approach needs relatively comprehensive data in order for its effective application to measure and analyze poverty, the accuracy of measurement outcomes as well as their relevance to appropriate policy prescriptions warrant its very promising future. What is needed is a wider application of the approach, which will then help make the needed substantive and methodological refinements.

There are four major areas in which the approach needs further work. First, the approach needs to capture the substance that it needs under the multidimensional framework and yet needs to streamline the contents for a straightforward conceptualization. The notions of economic well-being, capability, and social inclusion representing the material, inner, and relational resources are highly relevant to assess one’s poverty status in a meaningful and comprehensive way. Yet, the general framework used for empirical analysis necessitates further streamlining. One challenge is to come up with a more specific set of indicators that capture the core of the poverty dimensions and yet are simple enough to operationalize. Using a large number of indicators is neither theoretically relevant nor operationally advisable. Where as the conventional poverty approaches have witnessed widespread application for their simplicity, this approach needs to include indicators that are highly accurate, thus promoting clarity. One of the potential areas for such streamlining is the concept of social inclusion, where the economic inclusion either needs better indicators or further conceptual clarity. This particular (sub)dimension, for example, has not yielded the extent of relationship as do the other (sub)dimensions of social inclusion.

Second, context matters when it comes to defining and measuring poverty. As a social construct, most of the issues related to poverty are contextual. Social norms and values, for example, greatly impact the way poverty is understood and ought to be measured. Due to enormous variations in social norms and values across regions and countries, application of this multidimensional framework needs appropriate modification. The value that one puts to the relational resources is one area, in which context can make a difference with a need to use modified sets of indicators.
Third, data and methodological considerations are tremendous. Partly, the issues discussed here can help reduce the burden that poverty researchers have in terms of data and methodology. Partly, however, the fact that this approach necessitates a more comprehensive dataset, while justified, can be problematic in some situations. One should remember that it is a tradeoff between choosing to use less-comprehensive data and accepting poverty measurement outcomes that are less accurate and less informative for policymaking.

Finally, this approach needs further refinement in the methodology applied to develop context specific poverty thresholds. The scores provided by the estimation process are useful for rank-ordering the observations based on their performance on indicators. For simplicity, this analysis adopted absolute poverty targets relevant to specific contexts and uniformly applied the target for all scores across dimensions. An alternative methodology adopted here was the use of relative criterion to set the poverty thresholds on all poverty dimensions. These standards rely on standard practices and estimates especially following the economic well-being tradition. But poverty targets, estimates, and standards may vary across different dimensions. Poverty rates may not be uniform, for example, between economic well-being and capability as the increasing economic inequality and decreasing educational inequality suggest in the United States. A better approach may be to determine poverty thresholds for each dimension by identifying cases, which can be judgmentally classified as the poor given their performance on each indicator. Future research needs to look at this and other alternatives and provide a more specific direction.
## Appendix 1 Summary demographic statistics (Kathmandu)
(Values as percent of N (= 610) unless indicated otherwise)

<table>
<thead>
<tr>
<th>Category</th>
<th>Percent</th>
<th>Category</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age(^a) (year)</td>
<td></td>
<td>Gender(^a)</td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>41.54</td>
<td>Male</td>
<td>90.16</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>12.66</td>
<td>Female</td>
<td>9.84</td>
</tr>
<tr>
<td>Minimum</td>
<td>19</td>
<td>Sector</td>
<td></td>
</tr>
<tr>
<td>Maximum</td>
<td>86</td>
<td>Core</td>
<td>17.87</td>
</tr>
<tr>
<td>Birthplace(^a)</td>
<td></td>
<td>Center</td>
<td>15.41</td>
</tr>
<tr>
<td>Foreign born</td>
<td>2.46</td>
<td>East</td>
<td>33.93</td>
</tr>
<tr>
<td>Urban area born</td>
<td>45.74</td>
<td>North</td>
<td>17.70</td>
</tr>
<tr>
<td>Rural area born</td>
<td>51.80</td>
<td>West</td>
<td>15.08</td>
</tr>
<tr>
<td>Nativity(^a)</td>
<td></td>
<td>Household size</td>
<td></td>
</tr>
<tr>
<td>Native to Kathmandu</td>
<td>39.02</td>
<td>One</td>
<td>2.25</td>
</tr>
<tr>
<td>Migrant</td>
<td>60.98</td>
<td>Two</td>
<td>9.18</td>
</tr>
<tr>
<td>Caste</td>
<td></td>
<td>Three</td>
<td>15.94</td>
</tr>
<tr>
<td>Upper</td>
<td>27.70</td>
<td>Four</td>
<td>22.06</td>
</tr>
<tr>
<td>Upper middle</td>
<td>21.64</td>
<td>Five</td>
<td>22.06</td>
</tr>
<tr>
<td>Lower middle</td>
<td>46.23</td>
<td>Six</td>
<td>12.08</td>
</tr>
<tr>
<td>Lower</td>
<td>0.66</td>
<td>Seven or more</td>
<td>16.44</td>
</tr>
<tr>
<td>Other</td>
<td>3.77</td>
<td>Number of children under 6</td>
<td></td>
</tr>
<tr>
<td>Marital Status(^a)</td>
<td></td>
<td>None</td>
<td>70.33</td>
</tr>
<tr>
<td>Never married</td>
<td>9.18</td>
<td>One</td>
<td>22.46</td>
</tr>
<tr>
<td>Married</td>
<td>85.25</td>
<td>Two</td>
<td>5.06</td>
</tr>
<tr>
<td>Widowed</td>
<td>5.57</td>
<td>Three or more</td>
<td>2.13</td>
</tr>
<tr>
<td>Religion</td>
<td></td>
<td>Number of children under 18</td>
<td></td>
</tr>
<tr>
<td>Hindu</td>
<td>79.02</td>
<td>None</td>
<td>33.28</td>
</tr>
<tr>
<td>Buddhism</td>
<td>17.21</td>
<td>One</td>
<td>25.74</td>
</tr>
<tr>
<td>Muslim</td>
<td>1.48</td>
<td>Two</td>
<td>27.05</td>
</tr>
<tr>
<td>Other</td>
<td>2.30</td>
<td>Three or more</td>
<td>13.93</td>
</tr>
</tbody>
</table>

\(^a\) Applicable to householders
### Appendix 2 Description of key variables used in the analysis (Kathmandu)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Type</th>
<th>Values</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income per capita</td>
<td>Continuous</td>
<td>3k to 660k</td>
<td>Per capita annual income in the household (Measured in Nepali Rupees)</td>
</tr>
<tr>
<td>Consumption per capita</td>
<td>Continuous</td>
<td>4k to 179k</td>
<td>Per capita annual consumption expenses on all food and nonfood items (Measured in Nepali Rupees)</td>
</tr>
<tr>
<td>Adequacy of income for food</td>
<td>Ordered</td>
<td>1 to 5</td>
<td>Household income is adequate to cover food expenses (strongly disagree, disagree, no opinion, agree, strongly agree)</td>
</tr>
<tr>
<td>Adequacy of income for other expenses</td>
<td>Ordered</td>
<td>1 to 5</td>
<td>Income adequate to cover non-food expenses (strongly disagree, disagree, no opinion, agree, strongly agree)</td>
</tr>
<tr>
<td>Mean educational attainment for adults</td>
<td>Continuous</td>
<td>0 to 18</td>
<td>Average educational attainment for adults in number of years of schooling</td>
</tr>
<tr>
<td>Overall nutrition of household members</td>
<td>Ordered</td>
<td>1 to 5</td>
<td>Perception that household members have adequate nutrition (strongly disagree, disagree, no opinion, agree, strongly agree)</td>
</tr>
<tr>
<td>Equality in educational opportunity</td>
<td>Ordered</td>
<td>1 to 5</td>
<td>Perception of equality of educational opportunities between males and females in the household (strongly disagree, disagree, no opinion, agree, strongly agree)</td>
</tr>
<tr>
<td>Householder’s educational attainment</td>
<td>Continuous</td>
<td>0 to 22</td>
<td>Number of years of schooling for householders</td>
</tr>
<tr>
<td>Access to financial resources</td>
<td>Ordered</td>
<td>1 to 3</td>
<td>Type of access to financial resources (none, individual, institutional)</td>
</tr>
<tr>
<td>Householder’s occupation</td>
<td>Categorical</td>
<td>0 and 1</td>
<td>Householders occupation: executive or professional; armed forces, farming, labor, or machine operation; sales; administrative support; craft</td>
</tr>
<tr>
<td>Employment industry</td>
<td>Continuous</td>
<td>0 to 1</td>
<td>Employment in government agencies; NGOs; public enterprises; private companies; private registered businesses; private unregistered businesses</td>
</tr>
<tr>
<td>Mean voting frequency</td>
<td>Continuous</td>
<td>0.3 to 3</td>
<td>Average voting frequency for all adults (based on individual frequencies: never, sometimes, always)</td>
</tr>
<tr>
<td>Category</td>
<td>Scale Type</td>
<td>Scale Range</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td>------------</td>
<td>-------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Participation in partisan activities</td>
<td>Ordered</td>
<td>1 to 3</td>
<td>Frequency of participation in political meetings, rallies, and demonstration (never, sometimes, often)</td>
</tr>
<tr>
<td>Informal talk about policies</td>
<td>Ordered</td>
<td>1 to 3</td>
<td>Frequency of informal conversations about policy issues held with other families or friends (Never, sometimes, often)</td>
</tr>
<tr>
<td>Contacts from political leaders</td>
<td>Ordered</td>
<td>1 to 3</td>
<td>Frequency of visits, calls, or other contacts from political leaders (never, sometimes, often)</td>
</tr>
<tr>
<td>Communication with political leaders</td>
<td>Ordered</td>
<td>1 to 3</td>
<td>Frequency of verbal or written communication with political leaders (never, sometimes, often)</td>
</tr>
<tr>
<td>Organizational memberships per capita</td>
<td>Continuous</td>
<td>0 to 6</td>
<td>Number of memberships to registered or unregistered organizations or groups in per capita terms for adults</td>
</tr>
<tr>
<td>Participation in social activities</td>
<td>Ordered</td>
<td>1 to 3</td>
<td>Frequency of participation in social or cultural activities that are organized by inviting relatives and friends (never, sometimes, often)</td>
</tr>
<tr>
<td>Participation in joint activities</td>
<td>Ordered</td>
<td>1 to 3</td>
<td>Frequency of participation in activities jointly carried out with other relatives or friends (never, sometimes, often)</td>
</tr>
<tr>
<td>Social networks and ties</td>
<td>Ordered</td>
<td>1 to 5</td>
<td>Extent of social networks and ties as indicated by agreement over the ability to get jobs when needed (strongly disagree, disagree, no opinion, agree, strongly agree)</td>
</tr>
</tbody>
</table>
### Appendix 3 Summary demographic statistics (US)
(Values as percent of N (= 2803) unless indicated otherwise)

<table>
<thead>
<tr>
<th>Category</th>
<th>Percent</th>
<th>Category</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>45.96</td>
<td>Race</td>
<td>79.51</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>16.80</td>
<td>White</td>
<td>13.31</td>
</tr>
<tr>
<td>Minimum</td>
<td>18.00</td>
<td>American Indian</td>
<td>0.93</td>
</tr>
<tr>
<td>Maximum</td>
<td>89.00</td>
<td>Asian</td>
<td>3.57</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>45.52</td>
<td>Hispanic</td>
<td>2.68</td>
</tr>
<tr>
<td>Female</td>
<td>54.48</td>
<td>Nativity</td>
<td></td>
</tr>
<tr>
<td>Household size</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One</td>
<td>25.12</td>
<td>US born</td>
<td>90.30</td>
</tr>
<tr>
<td>Two</td>
<td>38.39</td>
<td>Foreign born</td>
<td>9.70</td>
</tr>
<tr>
<td>Three</td>
<td>15.73</td>
<td>Married</td>
<td>52.59</td>
</tr>
<tr>
<td>Four</td>
<td>12.17</td>
<td>Never married</td>
<td>22.05</td>
</tr>
<tr>
<td>Five or more</td>
<td>8.62</td>
<td>Divorced/separated</td>
<td>18.12</td>
</tr>
<tr>
<td>Number of children under 6</td>
<td></td>
<td>Widowed</td>
<td>7.24</td>
</tr>
<tr>
<td>None</td>
<td>87.44</td>
<td>Religion</td>
<td></td>
</tr>
<tr>
<td>One</td>
<td>8.56</td>
<td>Protestant</td>
<td>53.15</td>
</tr>
<tr>
<td>Two</td>
<td>3.42</td>
<td>Catholic</td>
<td>23.37</td>
</tr>
<tr>
<td>Three</td>
<td>0.58</td>
<td>No religion</td>
<td>14.31</td>
</tr>
<tr>
<td>Four</td>
<td></td>
<td>Others</td>
<td>9.17</td>
</tr>
<tr>
<td>Three or more</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>None</td>
<td>69.00</td>
<td>Region</td>
<td></td>
</tr>
<tr>
<td>One</td>
<td>13.63</td>
<td>Northeast</td>
<td>15.95</td>
</tr>
<tr>
<td>Two</td>
<td>10.88</td>
<td>Midwest</td>
<td>24.83</td>
</tr>
<tr>
<td>Three or more</td>
<td>6.49</td>
<td>Mountain</td>
<td>7.21</td>
</tr>
<tr>
<td>Four</td>
<td></td>
<td>South</td>
<td>38.63</td>
</tr>
<tr>
<td>Five or more</td>
<td></td>
<td>Pacific</td>
<td>13.38</td>
</tr>
</tbody>
</table>
## Appendix 4  Description of key variables used in the analysis (US)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Type</th>
<th>Values</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent’s income</td>
<td>Continuous</td>
<td>−56k to 130k</td>
<td>Annual income (measured in US$)</td>
</tr>
<tr>
<td>Total family income</td>
<td>Continuous</td>
<td>0.5k to 130k</td>
<td>Equivalized annual income (measured in US$)</td>
</tr>
<tr>
<td>Satisfaction with financial situation*</td>
<td>Ordinal</td>
<td>1 to 3</td>
<td>Degree of satisfaction with one’s own financial situation (Satisfied, more or less satisfied, not at all satisfied)</td>
</tr>
<tr>
<td>Education</td>
<td>Continuous</td>
<td>0 to 20</td>
<td>Respondent’s highest year of school completed</td>
</tr>
<tr>
<td>Condition of health*</td>
<td>Ordinal</td>
<td>1 to 4</td>
<td>Condition of respondent’s health (excellent, good, fair, poor)</td>
</tr>
<tr>
<td>Treated with respect*</td>
<td>Ordinal</td>
<td>1 to 4</td>
<td>Opinion on whether or not people are treated with respect at work (strongly agree…strongly disagree)</td>
</tr>
<tr>
<td>Occupational prestige*</td>
<td>Continuous</td>
<td>17 to 86</td>
<td>Respondent’s occupational prestige score (defined by the Census in 1980)</td>
</tr>
<tr>
<td>Employment industry</td>
<td>Categorical</td>
<td>4 to 0</td>
<td>Respondent’s industry of work (finance, insurance, real estate; professional, scientific and technical services; public administration; construction; others)</td>
</tr>
<tr>
<td>Work status</td>
<td>Categorical</td>
<td>4 to 0</td>
<td>Respondent’s work status (full time, part time, retired, house keeping, others)</td>
</tr>
<tr>
<td>Weeks of work</td>
<td>Continuous</td>
<td>0 to 52</td>
<td>Respondent’s work-weeks last year</td>
</tr>
<tr>
<td>Self employed</td>
<td>Categorical</td>
<td>0 or 1</td>
<td>Respondent self employed</td>
</tr>
<tr>
<td>Political activism*</td>
<td>Ordinal</td>
<td>0 to 24</td>
<td>Respondent’s degree of political activism including in signing petitions, boycotting products for political reasons, participating in demonstrations, attending rallies, contacting civil servant or politician, fundraising for political or social purposes, contacting media, belonging to a political party (with a value range of 0 to 3 each)</td>
</tr>
<tr>
<td>Voting in 2000 election</td>
<td>Categorical</td>
<td>0 to 2</td>
<td>Respondent’s voting in 2000 presidential election (ineligible, did not vote, voted)</td>
</tr>
<tr>
<td>Variable</td>
<td>Scale Type</td>
<td>Range</td>
<td>Description</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>------------</td>
<td>-------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Group membership</td>
<td>Continuous</td>
<td>0 to 20</td>
<td>Memberships to fraternal groups, service clubs, veterans groups, political clubs, labor unions, sports groups, youth groups, school service associations, school fraternities, nationality groups, farm organizations, literary groups, professional societies, church affiliated groups, other groups, and informal groups</td>
</tr>
<tr>
<td>Associational activity(^a)</td>
<td>Ordinal</td>
<td>1 to 7</td>
<td>Perceived importance of being active in political and social associations (not at all important … very important)</td>
</tr>
<tr>
<td>Personal contact(^a)</td>
<td>Continuous</td>
<td>0 to 500</td>
<td>Number of relatives or friends, excluding those at work, in contact at least once a year</td>
</tr>
<tr>
<td>Participation in social activities(^a)</td>
<td>Continuous</td>
<td>4 to 16</td>
<td>Degree of participation in group activities in trade unions and professional associations, religious organizations, sports, leisure or cultural groups, and other voluntary associations (no participation … active participation)</td>
</tr>
</tbody>
</table>

\(^a\) Indicates variables with missing values which were imputed using regression against socio-demographic variables.
References


References

London, UK: Center for Analysis of Social Exclusion/London School of Economics.


References


Fuchs, V. (1967). Redefining Poverty and Redistributing Income. *Public Interest* (Summer), 88–95.


Von Hügel Institute, St. Edmund’s College, Cambridge (June).


Basingstoke, UK: Palgrave Macmillan.


References


References


Index

A

abject poverty, 104, 115, 118, 120, 121, 127, 128
absolute income approach, 18
absolute poverty, 18, 23, 24, 25, 27, 131, 151, 152
estimates, 103
absolutist core, 2, 22
adequacy of resources
  normative, 13
adequate means for survival, 4
advanced countries, 176
agency role of human beings, 178
alleviating poverty, 131
American-Indian, 153
appear in public without shame, 23
Ariel map, 90
Asian, 154, 171

B

Bangladesh, 52
basic means of survival, 18
basic minimum life, 164
basic necessities, 1, 3, 24, 53
basic needs, 18, 20, 21, 22, 24, 25, 26, 27, 29, 30, 41, 49, 53
  elements of, 29
basic rights, 180
basic social rights, 66
Belgium, 57, 84
Black, 171
Brahmin, 118
Brazil, 52
Britain, 84
Buddhism, 111, 113, 118

C

capability
  agency notion of, 37
  contemporary expositions of, 33
  indicators of, 37, 60, 65, 75, 77, 96, 140
  instrumental values of, 32
  intrinsic values of, 32
capability deprivation, 30, 37, 38
capability poor, 69, 107, 111, 127, 150, 153
capability poverty, 75, 82, 84, 150, 153, 154, 170
capability poverty measure, 41
capability poverty status, 82
caste, 96, 97, 111, 112, 113, 115, 118, 125, 126, 127, 128
categorical indicators, 92
categories of poor
  ‘abject poor’, 11, 69, 71, 150
  ‘poor’, 12, 69, 104, 150
  ‘very poor’, 11, 69, 150
  abject poor, 104, 106, 107, 118, 119, 121, 127, 128, 129, 150, 151, 152, 161, 162, 163, 169, 171, 175
  very poor, 104, 106, 107, 115, 127, 128, 129, 150, 151, 152, 161, 162, 163, 169, 171, 175
CBS, 87, 103, 176
Census Bureau, 7, 22, 27, 149, 160
central human capabilities, 39
Chi square, 92, 137
chronic poor. See chronic poverty

207
chronic poverty, 70, 104
chronic unemployment, 142
civic and cultural activities, 145
civic and cultural belongingness feeling of, 146
civic organizations, groups, and clubs participation in, 66
civic/cultural activism, 124
civic/cultural inclusion indicators of, 66, 98, 143
clientelistic culture, 125
coefficient of variation, 102, 147
commodification of labor power, 20
commoditization, 3
concentration of capability poverty, 153
concentration of poverty, 111, 115, 118, 121, 129
condition of health, 135, 141
consumption monetary estimates of, 26 per capita, 96
consumption expenditure distribution of, 7
cross-sectional comparisons, 11, 134
culture of poverty, 44, 45, 133
Current Population Surveys, 176
Czech Republic, 53

d 
decent healthcare, 131
decent living standard, 15, 19, 58
degrees of poverty, 69, 70, 71
demographic characteristics of the poor, 111
demographic identity, 153
denial of participation, 43
deserving poor, 71
developing countries, 1, 17, 19, 20, 25, 29, 48, 176, 177, 180 low income, 18
developing societies, 39, 49
developing world, 1
deviant behavior, 44, 133, 179
direct and indirect effects, 99, 144

E
Earned Income Tax Credit, 166
economic and political inequality, 168
economic and social entrepreneurship, 179
economic and social rights, 35
economic deprivation, 16
economic growth, 7, 68, 122, 175, 176, 177, 179
economic inclusion indicators of, 65, 97, 142
economic inclusion poverty, 150
economic inequality, 7, 182
economic liberalization, 122
economic well-being indicators of, 29, 60, 64, 75, 96, 102, 140
economic well-being measures, 174
economic well-being poor, 69, 107, 126, 127, 150, 152, 153
economic well-being poverty, 149, 153, 154, 170
economy food plan, 27
educational attainment, 96, 100, 102, 140
educational inequality, 182
electoral participation, 180
elements of life goods-centered, 173 individual-centered, 173 society-centered, 173
employment industry, 140, 141, 142
entitlement, 178
entrenched poor, 119
equality of educational opportunities, 96
equivalence scale, 140
Index

Europe, 42, 46, 132
European countries, 68
European Foundation, 42
European Union, 24, 53

F
factor analysis, 72, 79, 81
factor scores, 101, 102
female headed households, 118
feminization of poverty, 118
Finland, 57
food calorie intake, 18, 21, 22, 23, 25, 27
Food Stamps, 166
foreign remittances, 176
France, 42, 47
freedom, 4, 15, 30, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 45, 48, 51, 92, 124, 125, 126, 177, 178, 179, 180
aspect of life, 15
economic and political, 168
negative and positive, 35
political, 123, 125, 174, 179
French, 52
full employment, 45
functionings, 4, 15, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39
fundamental entitlements, 35
Fuzzy sets analysis, 72

G
gender disparity, 179
General Social Survey, 134
Gini coefficient, 7
Gini index, 164
globalization, 87, 126
goodness of fit, 92

H
Heat Start, 167
Hindu society, 113, 118
Hispanic, 153, 154, 157, 160, 161, 170, 171
household size, 111, 121, 128, 135, 163, 171
household survey in Kathmandu, 90
HPI. See human poverty index
human capability, 178
human capital, 68, 84, 99, 106, 120, 153
human deprivation, 4
human deprivation index, 51
human development, 30, 39, 41, 51, 178
human development index, 41
Human Development Reports, 29, 41
human needs, 21, 22, 25, 26, 40
absolute and relative nature of, 22
human poverty index, 57, 60
human rights, 35, 42, 43, 49, 178
human well-being, 55, 59, 68
humiliation, 43

I
IILS, 18, 43
inclusive policy measures, 170
income poverty, 25, 45, 57, 60, 68, 74
India, 44, 119, 126, 127
indicator variables, 92
industrial countries, 19, 20, 42, 48
industrial reserve army, 20
inequality and redistribution issues, 177
informal sector, 98, 124
inner strength and resources, 112, 123, 147, 154, 167, 177, 178, 179
integration
civic and cultural, 143
degree of, 8, 9
social, 9
international development partners, 177
Index

isolation, 43
Israeli Census, 56
Italy, 52

L
labor market, 142, 145, 147, 165, 167, 180
labor market conditions, 167
labor market participation, 65
lack of social support, 43
latent poverty dimensions, 84, 92
liberty, 34, 39
limited rationality, 36
living standard
  subsistent, 21
lumpenproletariats, 20

M
marginal income tax rate, 176
material resources, 64, 145, 146, 166, 175
  access to, 106, 112, 123, 124, 126, 178
  indicators of, 175
material, inner, and relational
  resources, 165, 181
measurement error, 97
Medicaid, 166, 180
Medicare, 166, 180
methodological refinements, 181
Midwest, US, 162
Minimum Income Questions, 20
minimum wage, 124, 175
missing values, 134, 135
model estimation, 90, 135
model fit, 137
moral values, 179
MPlus, 137
multidimensional
  operationalization, 77
  categorization, 171
  characteristics of, 114, 160
concentration of, 160, 170
incidence, 150, 157, 160
multidimensional poverty
  hypothesis, 146
multidimensional poverty
  outcomes, 72, 104, 118
multidimensional poverty space,
  69
multidimensional poverty status,
  69, 75, 82, 83, 104, 118, 121, 127
multidimensionality hypothesis,
  98, 154
multidimensionality of poverty,
  58, 62, 98, 143
multivariate regression, 81
Muslim, 108, 111, 127

N
National Opinion research
  Center, 134
nationally representative data,
  134
nativity, 119, 135, 162
Netherlands, 57
Newar, 120
No Child Left Behind, 167
non-basic needs, 19
Northeast, US, 162, 163
number of children, 121, 128,
  135, 153, 163
nutritional status, 96

O
occupational categories, 97
occupational prestige, 135, 140,
  141, 142, 165, 167, 168
OECD countries, 58, 60, 76, 133
official poverty estimates
  Nepal, 88
OHCHR, 49
organizational memberships,
  98
overall human poverty, 25
Oxfam, 39
Pakistan, 39
participation in social and political milieu, 31
patriarchal society, 120
per capita GDP, 87
permanent command over resources, 29
Peru, 44
physical and social infrastructure, 120, 128
physical assets, 125
policy emphasis, 123
policy resources, 169, 170, 171
policy targeting, 8, 36, 72, 165
policymaking, 8, 164, 165
political activities, 66, 77, 98, 99, 101, 125
political and civil liberties, 35
political and social activities, 100
political and social networks, 174
political inclusion
indicators of, 66, 98, 142
political participation, 125, 126, 145, 146
political poverty, 133, 174
political representatives, 142
poverty
absolute and relative criteria of, 149, 150, 152, 160
absolute and relative dimensions of, 29
absolute, relative, and subjective approaches to, 102
absolute, relative, and subjective criteria of, 59, 83
measurement outcomes, 101, 147
relative criteria of, 83
subjective and relative notions of, 96
poverty categories
multidimensional, 82
poverty dimension scores, 143, 147, 148, 149
poverty dimensions
indicators of, 64, 95, 140
poverty gap, 59, 70
poverty headcount ratio, 3, 22, 59, 87, 88, 103, 113
poverty incidence, 28, 103, 104, 111, 112, 115, 119, 120, 121, 127
multidimensional, 105, 121
official, 176
unidimensional, 108
poverty line, 132, 149, 160, 164
$1.08/day, international, 18
$1/day, international, 1, 18, 21, 87, 103
$2/day, international, 1, 21
absolute and relative, 19
international, 19, 21, 28, 176
national and international, 3
official, 7, 18, 21, 22, 27, 28, 87, 89, 113, 119, 131, 132, 149, 157, 176
original, 164
poverty target
10 percent, absolute, 105, 106, 107, 111, 113, 115, 120, 121, 129, 149, 150, 151, 152, 153, 154, 160, 161, 162, 163
30 percent, absolute, 105, 106, 107, 112, 121, 151, 154, 160, 161, 162, 163
absolute, 11, 104, 170, 182
poverty threshold. See poverty line
primary and women’s education, 177
primary goods, 34, 48
productive knowledge, 178
proletariats, 20
public policies, 125
purchasing power parity, 18
Q
quality of life
  absolute and relative, 2
  acceptable, 25, 33
  decent, 6, 18, 45, 123, 127,
  132, 175
  human, 11
  inner, 9, 60, 65
  material, 9, 60, 123, 161, 165,
  167, 175
  material and inner, 42, 180
  material or physical, 16
  material, inner, and relational,
  6
  minimum, 39
  non-physical, 25
  non-physical aspects of, 17
  of the poor, 24
  outcomes, 6, 12
  physical, 16, 21, 28, 39
  physical and mental, 55
  poor, 145, 178
  psychological aspects of, 17
  relational, 42, 180
  social and relational, 60

R
redistributive policy measures, 71
regressive transfers, 24
rejection, 43
relational
  aspect of life, 9
  poverty, 66
relational resources, 62, 65, 66,
  71, 107, 112, 122, 123, 124,
  129, 133, 143, 146, 154, 161,
  163, 166, 167
  access to, 178
relational resources and
  participation, 179
relative deprivation, 42
relative poor, 152
relative poverty, 19
  50 percent of the median
  income, 19, 29, 58, 68, 103
  60 percent of the median
  income, 68, 103
  size of, 149
relative poverty cutoff
  50 percent of the median
  score, 111, 149
religious discrimination, 129
resourcefulness, 55, 58, 60, 62,
  83
rights
  equitarian approach to, 48
  risks and vulnerabilities, 129

S
sample size, 90, 137
self-belief, 178
self-confidence, 178
self-employment, 142, 165
self-respect, 31, 32, 34, 37, 141,
  167, 177, 178, 179
severe deprivation, 57
simultaneous equations, 78
simultaneous relationship, 166
slum communities, 89, 128
social activities, 98, 125, 135,
  143, 166
social alienation, 43
social and collective activities,
  180
social and political networks, 123
social and political rights, 179
social and relational
  resourcefulness, 42
social belongingness, 168, 174
social class, 20, 47
social engagement, 180
social exclusion
  indicators of, 50, 60
  involuntary, 61
  monopoly paradigm of, 46
  solidarity paradigm of, 46
  specialization paradigm of, 46
Social Exclusion Unit, 52, 133, 154
social fabric of life, 143
social hierarchies, 125
social inclusion
constitutive or instrumental relevance of, 49
contractarian approach to, 47
indicators of, 51
social-integration approach to, 47
social inclusion poor, 69, 70, 76, 104, 105, 107, 112, 126, 127, 149, 150, 152, 157, 170
social inclusion poverty, 148, 149, 154
social inequality, 178
social insurance, 180
social integration, 42, 43, 47, 51, 52, 180
social justice, 34, 36, 39
social networks and ties, 66, 98, 125
social norms and values, 181
social pathologies, 180
social policies, 132, 133
social safety net, 68
Social Security, 180
social stratification, 178
socio-demographic background, 31
socio-demographic identities, 167
South Asia, 21, 87, 88
South, US, 153, 154, 160, 162, 170, 171
structural barriers to participation, 45
structural equation, 72, 78, 81, 84, 137
structural relationship, 84
structural transformation, 120
subjective poverty, 20, 26
subsistence level of income, 20
subsistence living, 18, 20
Supplemental Security Income, 166

T
Tax Foundation, 176
Temporary Aid to Needy Families, 166
total standardized effects, 99, 144
transfer axiom, 23
transient poor, 119

U
UK, 52, 57, 68
UN Summit on Social Development, 57
underclass, 133, 179
UNDP, 5, 18, 19, 25, 29, 30, 41, 51, 57, 58, 59, 60, 64, 65, 66, 76, 87, 88, 89, 108, 111, 119, 132, 142, 177
UNDP/Nepal, 87, 111, 119
unemployment, 42, 43, 51, 52
long term, 58, 60
unidimensional operationalizations, 73, 77
unidimensional poverty characteristics of, 108, 153
incidence, 153, 154, 161
measurement, 152
outcomes, 154
unidimensional poverty spaces, 104
unidimensional poverty status, 148, 149
unidirectional effect, 99, 100, 146
United Kingdom, 17, 42, 47
United Nations, 21, 25, 29, 47, 57
universal applicability, 7
Universal Declaration of Human Rights, 47
unregistered businesses, 97
urban underclass, 44, 45, 46
utilitarianism, 36
utility, 18, 36, 38, 45, 52
<table>
<thead>
<tr>
<th>W</th>
<th>West, US, 162, 163</th>
</tr>
</thead>
<tbody>
<tr>
<td>wage structure, 167</td>
<td>Western societies, 174</td>
</tr>
<tr>
<td>weighted least squared estimator, 92</td>
<td>work ethic, 179</td>
</tr>
<tr>
<td>welfare</td>
<td>working poverty, 68</td>
</tr>
<tr>
<td>economic aspect of, 17</td>
<td>World Bank, 1, 17, 18, 28, 64, 87, 103, 108, 176, 177</td>
</tr>
<tr>
<td>personal aspects of, 42</td>
<td></td>
</tr>
<tr>
<td>welfare dependency, 133</td>
<td></td>
</tr>
<tr>
<td>welfare handout, 180</td>
<td></td>
</tr>
<tr>
<td>welfare state, 133</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Y</th>
<th>Yemen, 44</th>
</tr>
</thead>
</table>
Bio for inclusion on the back cover page of the book: Udaya R. Wagle is an Assistant Professor in the School of Public Affairs and Administration at Western Michigan University, where he teaches research methods, statistics, and public finance. He holds a Ph.D. in public policy from the University of Massachusetts, Boston, and is interested in economic and political inequality, poverty, social policy, and international development. Dr. Wagle has conducted research in the United States, South Asia, and Nepal in particular. He has published in some of the widely read academic and professional journals in the field including International Political Science Review, International Social Science Journal, Journal of Economic Inequality, Journal of Human Development, Policy Sciences, the Social Science Journal, Social Science Research, South Asia, and World Development. He lives in Kalamazoo, Michigan.]