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Deprivation and Poverty in Hong Kong

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Abstract

Despite high and rising real incomes, the poverty rate in Hong Kong remains a cause of community concern. The government has been reluctant to set a poverty line, although the recently (re-)established Commission on Poverty has recommended that a poverty line for Hong Kong is developed. Against this background, this article reports results derived from a new deprivation study designed to shed new light on the living standards of the poorest in the community. Reflecting international studies, deprivation is identified as existing when people do not have and cannot afford items regarded by a majority in the community as being essential for all. A list of 35 basic needs items is identified as meeting this definition, the results indicating that around 30 per cent are deprived of at least two items, over 18 per cent are deprived of at least four items and 10 per cent are deprived of at least eight items. Deprivation rates are particularly high among items that meet basic health needs. A mean deprivation score index (MDIS) is then used to compare the degree of deprivation experienced by different groups, and indicates that deprivation is most pronounced amongst those receiving Comprehensive Social Security Assistance (CSSA), people affected by a disability and recent migrants. The overlap between deprivation and income poverty is also relatively low, which suggests both measures have a role to play in identifying who is most vulnerable and guiding where policy change is most urgently needed.

Keywords

Poverty; Deprivation; Poverty line; Essentials of life; Social security

Introduction

Poverty and inequality are issues of global concern and Hong Kong is no exception. Although economic growth has delivered material prosperity to many Hong Kong residents, there is growing community concern that the benefits have disproportionately benefited the rich and not enough has been done to address poverty. The announcement in 2012 by newly elected Chief Executive Leung Chun-ying of the re-establishment of the Commission on

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Poverty (originally set up in 2005 but disbanded in 2007) reflects widespread community concern over the failure to reduce poverty to an acceptable level. Unlike its predecessor that did not establish an official (government-endorsed) poverty line and argued against the value of one, the new Commission has explicitly been asked to develop a poverty line for Hong Kong and is expected to produce one in September 2013.

Hong Kong is characterized by wide income disparities and this makes the task of reducing poverty that much more difficult. Figures presented by the United Nations Development Programme (UNDP) in its *Human Development Report 2010* indicated that income inequality in Hong Kong was greater than in any of the 32 'very high human development countries' for which data were presented (UNDP 2010: table 3). The Hong Kong Gini coefficient of 0.425 was more than 75 per cent higher than the lowest reported (0.247 in Denmark) and in only three other countries (the USA, Singapore and Qatar) was the Gini above 0.4. The Organisation for Economic Co-operation and Development (OECD) has documented recent changes in different dimensions of inequality (OECD 2008) arguing that rising levels of inequality and poverty can stifle upward social mobility, generate social resentment and give rise to political instability that can undermine efforts to promote open trade and free markets (OECD 2011).

Despite these high-level concerns, defining and measuring poverty in ways that can guide anti-poverty policy presents challenges to researchers and policymakers. Although income is most commonly used to establish the poverty status of a person or a household in most countries, including in Hong Kong, it has its limitations. First, it does not always capture living standards, particularly among older people and children. Many older people rely on accumulated savings or in-kind support to supplement their (cash) income, while children's needs are *assumed* to be met out of the incomes of parents. In addition, some people cannot fulfil their basic needs because of social exclusion rather than lack of money, for example ethnic minorities who face discrimination in the labour market, or who cannot access public services or financial instruments because of language barriers or lack of information. These limitations can distort estimates of who is most at risk of poverty and send the wrong messages to policymakers.

Estimates produced by leading non-governmental organizations like Oxfam and the Hong Kong Council of Social Service based on their own poverty lines indicate that poverty in Hong Kong remains stubbornly high. Government income statistics indicate that in 2010, almost one-fifth (18.1 per cent) of households – containing 1.26 million people – were living on incomes below the poverty line (Wong 2012). This is well above the 11.2 per cent poverty rate that existed in 1991, but similar to that in 1998, since when the poverty rate has varied in a narrow range between 17 and 18 per cent. Older people are at particular risk, facing a poverty rate of 33.9 per cent in 2010, almost twice the national rate.[1] Importantly, these studies have attracted wide attention in the media, drawing public attention to the issue and exerting pressure on the government to do more about it.[2]

Against this background, this article contributes to the ongoing debate about the measurement and extent of poverty in Hong Kong by reporting

results from a deprivation study that was conducted in 2011.[3] The main objectives of the research were:

1. To develop a standardized and scientific indicator of deprivation in order to enhance the effectiveness of the planning and evaluation of anti-poverty programmes and poverty alleviation strategies in Hong Kong; and
2. To use that indicator to estimate the extent and nature of deprivation among the general Hong Kong population and compare it with estimates of poverty derived using a conventional poverty line approach.

In addressing the issues underlying these objectives, this article is organized as follows: the second section describes how poverty and deprivation differ and the methods used to identify and measure deprivation. The third section provides a brief summary of the survey methods and sample characteristics, while the main findings are presented and analyzed in the fourth section. Lastly, the fifth section provides a brief summary of the main conclusions.

Income Poverty and Deprivation

Poverty reflects a situation in which people lack the resources required to meet their basic needs. It can be identified by comparing income received with a threshold (or poverty line) that reflects a judgement about how much is required to meet existing needs, or by observing what people are able to obtain given their available resources and comparing this with existing views on whether or not this is consistent with an acceptable standard of living. The first approach seeks to identify income poverty while the latter focuses on identifying deprivation, and they differ in important ways in how the underlying concepts are conceived and operationalized. Poverty focuses on the ability of income to support a minimum standard of living, whereas deprivation builds on community views about what items are essential to support an acceptable minimum standard of living and then defines those who do not have these items because of a lack of resources as deprived.

These competing approaches highlight several important differences between the two concepts: first, whereas poverty is assumed to be a consequence of low income, this *presumption* is inferred indirectly, but not tested. In contrast, the deprivation approach focuses on directly studying people's actual ability to acquire the items required to meet basic needs. This difference has been described by Ringen (1988) as being between measuring poverty indirectly (using income) or directly (by identifying deprivation). A second difference is that whereas poverty is defined on the basis of income alone, the emphasis given to the affordability of basic items when identifying deprivation allows a role for economic resources other than income (e.g. wealth or access to credit) that can be relied upon in times of need. Another difference is that whereas the (relative) needs of different family types is captured under the poverty approach by the equivalence scale, no such assumption is necessary under the deprivation approach because it is the *balance* between resources and needs that determines whether basic items can be afforded or have to be

foregone.[4] These differences mean that deprivation studies avoid many of the controversies that surround poverty studies, including deciding where to set the poverty line and which equivalence scale to embed within it.

Notwithstanding these differences, poverty and deprivation are closely related concepts and each has a role to play in helping to identify who is most vulnerable. There has, however, been a trend in the recent literature to attach more importance to deprivation studies, primarily as a complement to conventional poverty line studies – as reflected in the concept of consistent poverty that has become influential in Europe (Callan *et al.* 1993; Nolan and Whelan 1996; Boarini and d'Ercole 2006; Whelan and Maître 2007; Whelan *et al.* 2008; Ward 2009). This trend reflects the conceptual and practical limitations of the poverty line approach, combined with increasing awareness of the need to ground the estimates more firmly in the living conditions that people are able to attain and align them more closely with community norms about acceptable minimum standards (Boarini and d'Ercole 2006; Saunders 2011; see also OECD 2008: 178–79).

The choice between the two approaches would not be so critical if the estimates produced by the two methods were similar, since this would imply that either can be used to estimate the extent and nature of poverty. Unfortunately, this is not the case. Many studies (e.g. Bradshaw and Finch 2003; Saunders *et al.* 2007; OECD 2008: 190–93) have shown that the overlap between poverty and deprivation is low, which implies that the choice of approach and measure will affect estimates of how big the problem is, but also which groups are most affected and hence which policy reforms are needed.

While there have been many studies of poverty in Hong Kong, the majority of them have used a poverty line approach, differing only in how and where the poverty line is set.[5] One approach followed the method used in the USA (Ruggles 1990) by setting a poverty line based on the proportion of total budget spent on food (Wong and Chua 1996). Other studies have followed the approach used by international agencies like the OECD in which a poverty line is set at a percentage of median income – 50 per cent in the case of Mok and Leung (1997) and 60 per cent in the case of Lau (2005). The food budget approach produced an estimated 'abject' poverty rate of 9.3 per cent in 1994–95 – less than half of the relative poverty rate of 18.8 per cent in 1996 produced using the latter approach and a 50 per cent threshold (see Liu and Wu 1998: 36–38) and around one-third of the rate estimated by Lau (2005: table 1) using a 60 per cent threshold. These academic studies have highlighted the importance of where the poverty line is set and fuelled the ongoing controversy surrounding the poverty line approach.

The only systematic and large-scale study of poverty in Hong Kong that has adopted a deprivation approach was conducted over 30 years ago (Chow 1981, 1983).[6] Chow replicated the relative deprivation approach developed by Townsend (1979) and identified a list of 10 essential needs that constitute poverty by surveying over 300 people that included 'students, factory workers, housewives and office clerks whose economic conditions varied a great deal' (Chow 1981: 180). He used this list of items to estimate the level of deprivation of different disadvantaged groups in Hong Kong and found that in mid-1981,

about 13 per cent of Hong Kong households faced a level of deprivation that was consistent with poverty.[7] A more recent attempt to create a list of basic need necessities was undertaken by Wong (2005), although development of the list of necessities in this case was based on the consensus views of experts and service users only, not on the views of the general population.

Although these two studies show that the deprivation approach is not new to Hong Kong, the time elapsed since the Chow study was conducted and the limited samples used in both studies suggest that there is a need to address these limitations and draw on the improvements that have been made to the basic approach since it was first developed. These developments are reflected in what has come to be called the 'Breadline Britain' approach and are encapsulated in the definition first articulated by Mack and Lansley (1985: 39), who defined deprivation as 'an enforced lack of socially perceived necessities' (see also Gordon and Townsend 2000; Pantazis *et al.* 2006). The word 'enforced' indicates that deprivation, like poverty reflects a situation where a lack of resources prevents people from meeting their basic needs, while the phrase 'socially perceived' highlights the role that community norms play in identifying basic necessities. An implication of the latter idea is that deprivation is an explicitly relative concept, although its relativism is captured by expressed community views about which items are necessary (or essential), not by the more controversial practice of experts setting a poverty line that is linked to median (or mean) income.

In order to measure deprivation, it is first necessary to identify those items that are regarded as necessities by the majority of the population, a procedure which embeds the approach within community norms and expectations and, as Gordon (2006) has noted, gives it political validity. This involves surveying a large enough proportion of the population to be confident that the findings reflect the views of the community as a whole, and on being able to demonstrate that the views expressed are similar enough to be described as reflecting a consensus within the community. How the survey is conducted and what data it produces are thus crucial inputs into the process of identifying deprivation and the discussion now turns to these aspects of the research.

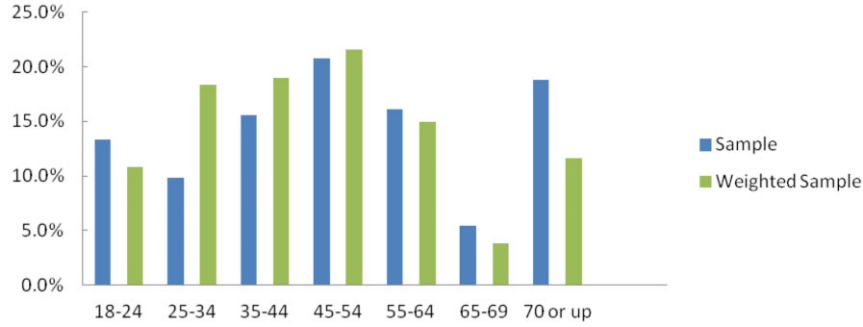
Survey Methods and Sample Characteristics

The survey on which the following estimates are based was conducted between February and March 2011 and attracted 1,038 respondents. A two-stage stratified systematic sample design was adopted in which, in the first stage, a random sample of quarters (residential areas) was selected. One household member aged 18 or above in each sampled household was then chosen randomly to participate in the actual survey in the second stage.

A multi-wave, multi-contact approach was employed to increase the proportion of respondents willing to participate in the survey and the chance of contacting the sampled persons in each selected household. Before the interview took place, a notification letter was sent to the respondents, explaining the purposes of the survey and reassuring them that all data would be kept strictly confidential. If the first call was unsuccessful, interviewers were

Figure 1

Age structures of the unweighted and weighted baseline sample (age ranges in years)



required to make at least five call backs, at different times of the day and different days of the week. In cases where a refusal was encountered, the fieldwork superviser either assigned the case to another interviewer, accompanied the interviewer to make a second attempt, or took over the case themselves. This arrangement ensured overall quality control, as well as minimizing the number of non-response cases.

Once the sample had been recruited, it was compared with official (census-based) data on the Hong Kong population to check for any biases. These comparisons (based on population data for the end of 2010 – see Census and Statistics Department 2011) indicated that the sample contained an over-representation of those aged 65 years old or above, and an under-representation of those aged between 25 and 44 years (see figure 1).[8] In order to adjust for the different age-based response rates, a weighting factor was applied to each observation in the raw survey data so that the weighted sample reflects the actual age distribution of the population. The estimates presented henceforth throughout this article are based on the weighted dataset. Re-weighting of the sample in this way is of particular importance when it comes to identifying whether or not items receive majority support for being necessary, since that majority should apply to the community as a whole, not just to the recruited sample.

Respondents to the survey were asked three key questions about a series of items covering basic need goods, services and activities. These were: Is the item essential for everyone in Hong Kong – where 'essential' was defined as referring to 'Things that no-one in Hong Kong should have to go without today'. They were also asked to indicate whether they had the item and if they did not, whether or not this was because they could not afford it.[9] The responses to the first of these three questions allow those items that are regarded as essential by at least a majority of the community to be identified, while the responses to questions two and three allow deprivation to be

identified as existing when a person/household does not have and cannot afford these identified 'essentials of life' items.

The list of items was informed by the findings that emerged from a series of focus groups conducted with welfare service clients, human service professionals and members of community organizations, in which participants were asked to reach agreement on what items they thought were essential to lead a decent life in contemporary Hong Kong. In order to keep the length of the questionnaire to a minimum, and because the focus is on items that meet basic needs, only those items that were widely seen as essential were included in the final survey instrument. This explains why (see below) almost all of the items included in the survey were widely regarded as essential by those who participated in the survey. Importantly, however, the approach of basing the identification of essential items on the majority views of a large cross-section of the population means that the approach is far more robust than in the Hong Kong deprivation studies referred to earlier.[10]

Identifying and Measuring Deprivation

Identifying essential items

Table 1 lists the 35 items that exceeded the Hong Kong majority support threshold and shows the percentage support that each item attracted. Only two items failed to attract majority support for being essential. These were 'Able to take part in charged activities organised by a neighbourhood or social service organisation' (48.6 per cent support) and 'Can leave Hong Kong for a vacation once a year' (45.4 per cent support). These two items were removed from the analysis, which focuses on the 35 items shown in table 1.

Before discussing the deprivation results themselves, it is useful to briefly examine how the responses to the 'Is it essential?' question vary across different social groups. This is important because it is provides greater insight into whether or not there is a *social consensus* (as opposed to a *numerical majority*) about the identification of essential items. The approach adopted follows that used by Pantazis, Gordon and Townsend (2006) and Saunders, Naidoo and Griffiths (2007) in using bivariate scatter plots to illustrate how the views of different social groups vary. The scatter plots based on dividing the sample by the age and income of respondents are shown in figures 2a and 2b, respectively. Each figure plots the percentages of the two groups (defined here to be mutually exclusive) that think that each item is essential. If all of the plotted points were to lie along the 45° line, this would indicate that there is perfect agreement between the two groups about every item, and the degree of divergence from the diagonal thus provides an indication of how much the views of the two groups diverge. Visual inspection indicates that in both cases (and in the other cases examined but not reported here) the points lie close to the diagonal, indicating that there is a consensus about which items are essential.

Figure 2a indicates that those aged 65 and over are less likely to regard items as essential than those aged under 65, although the differences are not large and many of them can be explained by the fact that some of the items

Table 1

Hong Kong Deprivation Index Scale components

Identified items	Support for item being essential	Does not have	Does not have and cannot afford
	Weighted percentages:		
Accommodation, food, and clothing			
Has safe living environment without structural dangers	99.4	2.4	1.8
Has sufficient living space at home, with no need to stay in bed all day	97.3	6.5	5.4
Has bathroom inside a self-contained apartment, with no need to share with other families	93.3	5.5	3.7
Has at least one window at home	98.7	0.2	0.2
Can go to teahouse sometimes in leisure time	73.8	13.7	7.0
Has breakfast every day	95.0	3.0	0.5
Has fresh fruit at least once a week	96.5	1.3	0.3
Can buy one or two pieces of new clothes in a year	89.9	5.5	3.7
Has one set of decent clothes	86.7	9.0	6.3
Has enough warm clothes for cold weather	99.5	1.1	1.1
Medical care			
Weak elderly can receive adequate care services if needed	94.6	62.3	9.0
Can travel to and back from hospital by taxi when needed	80.1	18.5	14.3
Able to have dental check-up periodically	66.7	51.0	29.2
Able to consult Chinese medicine practitioner when needed	81.5	27.3	8.6
Can consult private doctor in case of emergency without waiting for public outpatient service	89.9	17.8	14.3
Able to purchase medicines prescribed by a doctor	86.8	37.3	17.4
Social connections			
Can take transport for visiting relatives and friends	95.5	8.2	1.4
Able to visit hometown if needed	87.1	23.9	6.4
Can offer a gift of money on occasion of wedding	88.3	15.1	7.2
Can give lucky money to friends and relatives during Chinese New Year	91.0	9.7	4.5
Has a mobile phone	88.8	4.3	2.2
Has leisure activities in holidays	71.9	49.3	6.1
Training and education			
Has the opportunity to learn computer skills	82.5	36.6	7.6
Able to attend vocational training	72.1	63.9	4.2
Students can buy reference books and supplementary exercises	76.6	58.6	4.7
Students have school uniforms of proper size every year	75.4	58.0	2.3
Students have access to computer and Internet at home	76.4	54.5	1.0
Students can participate in extra-curricular activities	74.2	59.6	5.4
Working parents can use child care service when needed	65.9	79.4	2.7
Basic amenities			
Can have hot shower in cold winter	99.2	0.3	0.3
Can pay for spectacles if needed	96.9	5.2	1.3
Has a refrigerator at home	98.9	0.4	0.3
Has a television at home	95.9	0.6	0.4
Has air-conditioner at home for cooling in hot weather	87.9	5.5	4.5
Has a camera in the family	57.9	19.9	11.3

Figure 2a

Age differences in respondents' perception about essential need items

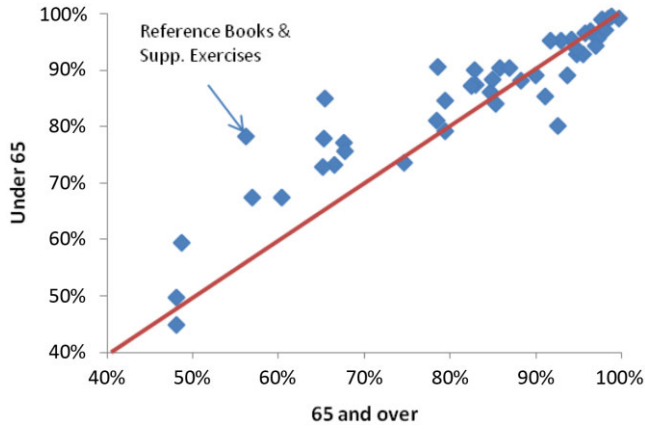
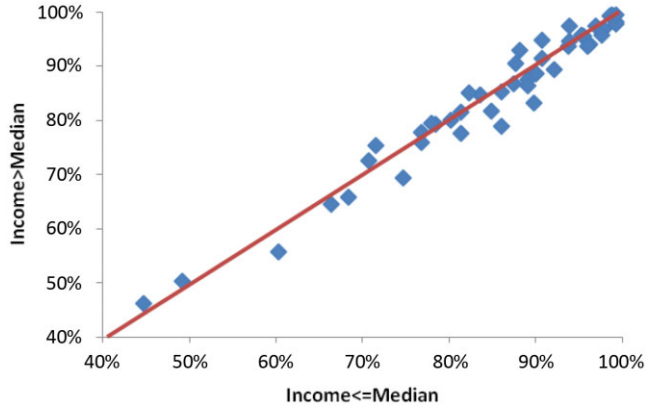


Figure 2b

Income differences in respondents' perception about essential need items



relate specifically to the needs of younger people (particularly those that relate to training and education needs – see table 1) and may not be seen as relevant (and hence not essential) to the needs of older people. Figure 2b shows a remarkable degree of similarity in the views of those with incomes above and below median income – a finding which casts doubt on the relevance of the

adaptive preferences hypothesis – but reaffirms the consensus nature and overall robustness of the findings.

The pattern of deprivation

Turning to the deprivation results themselves, the estimates in the last column of table 1 indicate that the deprivation rate is below 10 per cent for most of the 35 'essentials of life' items. Items with the lowest rates of deprivation are (with the exception of having a TV) all related to basic housing and food needs. Less than one per cent are deprived of the following items: 'fresh fruits at least once a week' (0.3 per cent), 'at least one window at home' (0.2 per cent), 'a refrigerator' (0.3 per cent), 'a hot shower in cold winter' (0.3 per cent), and 'a television' (0.4 per cent). Deprivation rates for several other items are between 6 per cent and 7 per cent, and the nature of these items suggests that many in Hong Kong do not have the financial capacity to engage in social activities such as visiting a tea house or having any general leisure activity.

Deprivation is most severe in relation to the items that relate to medical needs and medical care. More than one-quarter (29.2 per cent) are deprived of a dental check-up and the incidence of deprivation is also high in relation to medicines prescribed by doctors (17.4 per cent), emergency doctor consultations (14.3 per cent) and being able to travel to and from hospital by taxi when needed (14.3 per cent). These estimates point to the failings of the healthcare system in Hong Kong in delivering accessible and affordable services in times of ill health.

Multiple deprivation and the deprivation index score

The focus now shifts from examining the pattern of deprivation across the different *items* to the degree to which it is concentrated among particular *households*. An estimate of the severity of deprivation was derived by computing a deprivation index score equal to the number of essential items that each person/household does not have and cannot afford. For individual households, the index varies between 0 (when no essential items are missing) to 35 (when all 35 are missing), and the higher the index score, the more severe is the level of deprivation. By averaging the index across households, a mean deprivation index score (MDIS) can be derived that allows the severity of deprivation (and of the living standards that underlie it) to be compared.[11]

Table 2 shows the incidence of multiple deprivation on which the MDIS is based. It shows that well over half of the community (57.5 per cent) possess all of the 35 essential need items and thus experience no deprivation. Of the remaining 42.4 per cent who are unable to afford at least one essential need item, 29.9 per cent are deprived of at least two items, 23.6 per cent are deprived of at least three items, 18.4 per cent are deprived of at least four items and close to 10 per cent are deprived of at least eight essential items. The contrast between the almost 60 per cent who face no deprivation and the 10 per cent who face a severe level of multiple deprivation highlights the inequality that is a feature of contemporary Hong Kong.

Table 2

Incidence of multiple deprivation

Number of items lacking because they cannot be afforded	%
None	57.5
One or more	42.4
Two or more	29.9
Three or more	23.6
Four or more	18.4
Five or more	15.8
Six or more	13.1
Seven or more	11.2
Eight or more	9.9

The mean value of MDIS across the population is 1.9, which means that in Hong Kong as a whole people are deprived on average of almost two of the 35 essential need items. Table 3 compares the MDIS values for groups differentiated on the basis of age, family characteristics, housing status, country of birth and length of residency. The mean score for each group can be compared with that for the whole population (1.9) shown in the bottom right-hand cell of table 3.

The first point to note about the results in table 3 is that deprivation has a clear tendency to increase with age. This finding differs from that found in other countries, which show the opposite pattern. For example, studies for Australia by Saunders, Naidoo and Griffiths (2007) and Saunders and Wong (2012) indicate that deprivation declines with age – particularly among older age groups – and the cross-sectional evidence for the UK produces a similar pattern there (Berthoud *et al.* 2004). The high level of deprivation faced by older people in Hong Kong is reinforced by the estimates based on family characteristics in table 3, although the families that face the highest overall level of deprivation are those containing someone with a disability or chronic illness, while those in part-time work or unemployed, those living in rental housing (public or private) and recent arrivals into Hong Kong also fare poorly compared with other groups.

There is a marked deprivation differential between those who were born in Hong Kong and those who were born elsewhere, with the latter experiencing a level of deprivation that is twice as high on average. However, among those who have migrated to Hong Kong, the situation is worse in the early years after re-settlement, and after a period of seven years the average level of deprivation of migrants is close to that for the population as a whole. This suggests that the years immediately following re-settlement are the toughest and that public programmes are needed to assist new migrants through this difficult period.

Deprivation is highest overall – by a considerable margin – among those who are in receipt of a benefit under the Comprehensive Social Security

Table 3

Mean Deprivation Index Scores (MDIS) by household characteristics[a]

Household characteristic	MDIS
Age:	
18–24	0.59
25–44	1.52
45–64	2.06
65 or above	3.40
Family characteristics:	
Single-elderly household	2.52
Two-elderly household	2.10
With member(s) under 18 years old	2.25
Without member under 18 years old	1.71
With elderly member(s)	2.38
Without elderly member	1.69
With member(s) with a chronic disease or disability	4.17
Without member with a chronic disease or disability	1.46
Labour force status:	
Employed, total	1.26
Employed, full-time	0.91
Employed, part-time	3.36
Unemployed	3.01
Receiving CSSA	7.15
Not receiving CSSA	1.41
65+ and receiving CSSA	8.26
65+ and receiving OAA	2.07
65+ and not receiving OAA or CSSA	1.61
Used social services in last year	3.77
Did not use social services in last year	1.70
Housing status:	
Public rental housing	2.48
Home ownership scheme	0.60
Private housing (owned)	0.28
Private housing (rented)	2.50
Suite, cubic housing or bed space (rented)	1.87
Country of birth/length of residency:	
Born in Hong Kong	1.42
Born elsewhere	2.83
Less than 7 years	4.54
At least 7 years	1.81
All households	**1.90**

Notes: (a) CSSA = Comprehensive Social Security Assistance; OAA = Old Age Allowance.

Assistance (CSSA) scheme. For this group, the mean level of deprivation is five times higher on average than among those not receiving CSSA. There is also a difference between those aged 65 and over receiving and not receiving an Old Age Allowance (OAA), although here the differential is much lower, at around 1.3 to 1. These differences highlight two features of social security provision in Hong Kong. The first is the very strict targeting and inadequate levels of assistance provided under the CSSA scheme. The second is that despite the wider coverage and more generous assistance provided under OAA, even here those receiving benefits still face an above-average level of deprivation.

Is there a deprivation threshold?

Considerable attention has been focused in earlier deprivation studies on whether or not it is possible to identify a threshold level of income below which deprivation rises sharply. If such a threshold can be identified, it can form the basis of a 'deprivation-based' income poverty line, following the approach developed by Townsend in his original study (Townsend 1979). This aspect of Townsend's work was widely criticized at the time (e.g. by Piachaud 1981) and since then there have been many improvements in the methods used to identify deprivation, as noted earlier. It is, however, somewhat surprising that there have been relatively few recent attempts to explore whether a deprivation threshold exists once the newer (and better) methods have been used to identify and measure deprivation.[12]

This issue has particular relevance in Hong Kong, where – as noted earlier – there has been a long debate over the need for a poverty line and much disappointment surrounded the decision made by the original Commission on Poverty not to produce one. The new Commission has identified the need for a poverty line as one of its immediate priorities and the following analysis may contribute usefully to its deliberations on this issue.

Table 4 indicates how the value of MDIS varies across the deciles of equivalized income and the pattern is illustrated in figure 3.[13] It is clear that the level of deprivation is much higher in the lowest two income deciles (4.6 and 4.7, respectively) and then drops away sharply in the third income decile (to 2.9), before declining gradually as income rises to about 1.0 in deciles 5 and 6 and to well below 1.0 in the top three deciles. The overall pattern closely resembles that found in the Australia community survey conducted in 2006 and reported in Saunders, Naidoo and Griffiths 2007: figure 7.

The decline in the value of MDIS between deciles 2 and 3 could in fact occur anywhere in the income range that encompasses the third decile, i.e. between HK$4,722 and HK$5,667 (see table 4). We have examined how MDIS varies across the individual percentiles within the second and third deciles, although these estimates are based on small samples (about ten households in each percentile) and are thus subject to large sampling error and the variation is considerable. However, visual inspection indicates that MDIS declines sharply but monotonically from around 5.5 to around 2.3 between the 15th and 30th percentiles. A conservative estimate of the threshold would place it at the top of the second decile as shown in figure 2, or at around

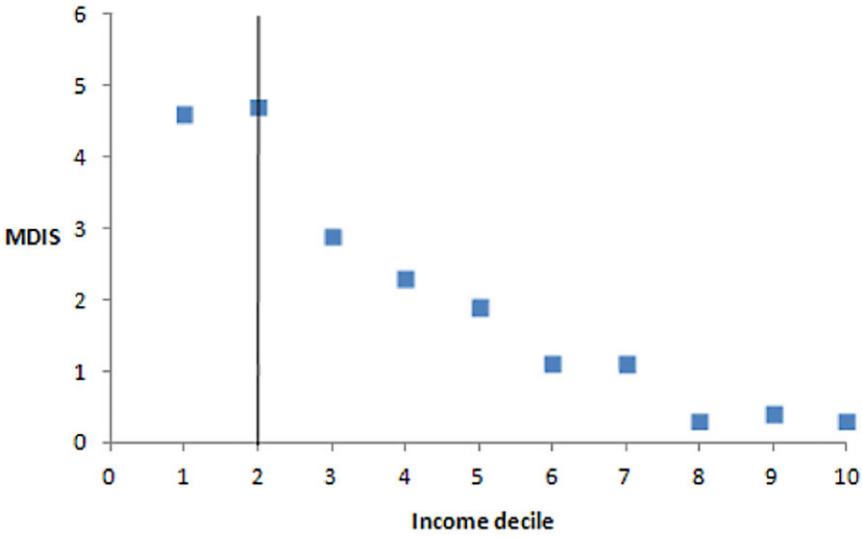
Table 4

Mean Deprivation Index Score (MDIS) by equalized income decile

Income decile	Income range (monthly)	MDIS
1	HK$1–HK$3,425	4.6
2	HK$3,426–HK$4,722	4.7
3	HK$4,723–HK$5,667	2.9
4	HK$5,668–HK$6,701	2.3
5	HK$6,702–HK$7,667	1.9
6	HK$7,668–HK$8,956	1.1
7	HK$8,957–HK$10,000	1.1
8	HK$10,001–HK$12,381	0.3
9	HK$12,382–HK$15,238	0.4
10	HK$15,239 or above	0.3

Figure 3

Mean Deprivation Index Score (MDIS) by equivalized monthly income decile



HK$4,720 a month – equivalent to 61.6 per cent of the survey estimate of median income of HK$7,667 (see table 4).

One problem with setting a deprivation threshold in this way is that, by definition, it produces a poverty rate that is always equal to 20 per cent. In

Table 5

Overlap between income poverty and deprivation (%)

Poverty rate	19.9
Deprivation rate	18.7
Percentage in poverty who are also deprived	41.7
Percentage deprived who are also poor	44.4
Core poverty rate	8.3

order to avoid this, we have instead established a threshold that is based on the level of deprivation itself, rather than on the relationship between deprivation and income (which is not precise enough for the task given the sample size being used here). Reflecting the results in table 4 and figure 2 and the above discussion, we have set the threshold used to identify deprivation in Hong Kong as missing out on at least four essential items because of a lack of affordability. On this definition, just under one-fifth (18.4 per cent) of households or about 1.1 million of the just over 7 million people living in Hong Kong in early 2011 when the survey was conducted are identified as experiencing a level of deprivation that is consistent with poverty.

Overlap analysis

The reported values of income and the derived values of MDIS are now used to explore the overlap between income poverty and deprivation. It is important to establish the degree of overlap because the case for adopting both approaches (or combining them) rests on establishing that they produce different results. For the purposes of this exercise, the poverty line has been set at the top of the second decile of the income distribution, and deprivation is defined as those who are deprived of at least four essential items.[14] The overlap results in table 5 indicate that less than half (41.7 per cent) of those with incomes below the poverty line are deprived, while a slightly higher percentage (44.4 per cent) of those deprived of four or more items have an income below the poverty line.[15]

If, following the approach adopted in other studies (see Bradshaw and Finch 2003; Saunders *et al.* 2007) those identified as being both poor and deprived are regarded as forming the core of poverty, this group represents 8.3 per cent of the population, or around one in 12 households. Alternatively, following the approach used by Maître, Nolan and Whelan (2006) and Saunders and Naidoo (2009), the overlap between poverty and deprivation can be regarded as representing the rate of consistent poverty, which in this case would again be equal to 8.3 per cent.

As noted earlier, the poverty line that underlies this estimate of consistent poverty is just above 60 per cent of median income, which makes the approach broadly consistent with other studies. However, the approach used here is designed to highlight some possible extensions to the research that has

been undertaken. Any such extensions would need to consider carefully the arguments that underlie choices about where to set the poverty line and how to define deprivation before they can be seen as providing robust estimates in the Hong Kong context.

Summary and Conclusions

This article has reported the main findings from a new survey of deprivation in Hong Kong that builds on recent studies conducted in Australia and on a methodology that has been developed in the 'Breadline Britain' studies over the last three decades. By following these other developments, this study represents an important advance over previous research on poverty in Hong Kong. The subject matter addressed is important because of growing community concern over the high poverty rate in Hong Kong and the ongoing controversy over where to set the poverty line.

The results indicate that after the raw data have been re-weighted to allow for any age-related biases in the sample, 35 of the 37 items included in the survey are regarded as essential by a majority of the Hong Kong community, with 32 seen as essential by at least 70 per cent of the (adult) population. There is also a broad consensus about which items are essential that extends across social groupings based on such characteristics as gender and income. Where there are differences, these can be explained by the nature of the items themselves – for example, items that relate specifically to the needs of students attract greater support for being essential among younger members of the community than among older groups.

Deprivation exists when people do not have and cannot afford items identified as essential by a majority in the community. On this definition, in 2011 around two-fifths (42.4 per cent) of the population are deprived of at least one item, almost one-fifth (18.4 per cent) are deprived of at least four essential items, and one in ten (9.9 per cent) are deprived of at least eight items. Deprivation is found to be relatively severe for items relating to health needs, where the incidence of deprivation for a periodical dental check-up, being able to purchase medicines prescribed by doctors and consulting a private doctor in case of emergency are 29.2 per cent, 17.4 per cent and 14.3 per cent, respectively.

A deprivation index score (MDIS) was derived by summing the number of deprivations experienced at the individual level and then averaging it across different social groups. The mean value of MDIS for the whole population is 1.9, but it varies considerably between groups, with the highest values experienced by younger people, those with a family member with a disability, those living in rental accommodation, the unemployed and part-time workers, those in receipt of CSSA and recently arrived migrants. These latter estimates highlight some of the inadequacies that exist in current healthcare, social security and re-settlement policies in Hong Kong.

After examining the relationship between deprivation and poverty, a poverty line was set at the lower end of the income distribution and a threshold of four items was used to define deprivation. On the basis of the latter measure, the results indicate that 18.4 per cent of the population or

around 1,100,000 people were deprived in Hong Kong in 2011. Less than half of these have incomes below a poverty line set (for illustrative purposes) at just above 60 per cent of median income. This implies that just over 8 per cent of the population are experiencing core or consistent poverty, with an income below the poverty line and a level of deprivation above the threshold. Those in this situation clearly face multiple problems of financial need that require immediate action by government.

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Notes

1. These estimates are based on a poverty line set at one-half of the median income of households differentiated by their size (number of members) and thus assume that differences in existing (median) incomes reflect differences in the need of differently sized households.
2. Among the many themes identified in these studies have been the role that factors such as economic restructuring, high unemployment, soaring rents, the influx of new immigrants, disability and population ageing, and the inadequate coverage and levels of social provision have played in preventing in-roads being made into reducing the poverty rate in Hong Kong.
3. The full study on which the article draws examined social exclusion as well as deprivation, and the focus here is on the results produced from only one of several inter-related surveys conducted as part of the main study. The other surveys not considered here were targeted on three disadvantaged groups: recipients of assistance under the CSSA scheme; families with disabled members; and older people. Results from these surveys provide greater insight into the circumstances of vulnerable groups and into the failures of current policy More information about these aspects of the study findings can be found in the main report on which this article draws (see Hong Kong Council of Social Service 2013).
4. Most equivalence scales make no allowance for (material) needs to decline in old age, and this can bias the estimates of poverty for this group. In contrast, under the deprivation approach actual needs influence the ability to purchase basic items from available resources and thus affect whether or not someone is deprived.
5. An exception is the study by MacPherson (1994) who applied a budget standards approach (see Bradshaw 1993) and found that CSSA recipients spent between 60 per cent and 70 per cent of their total expenditure on food and housing, which are always regarded as basic 'necessities'. The implication was that CSSA recipients were being forced to go without other items in order to meet basic nutritional and shelter needs.
6. Lau (2005) notes that she applied a version of the living standards/deprivation approach in her PhD thesis research using a survey conducted in 2000, but those results have not been published.
7. This is very close to the relative income poverty rate of 13.8 per cent estimated by Mok and Leung for 1981.

8. It is quite common for surveys of the type used in this study to produce a sample that contains these kinds of misrepresentations of the general population (in terms of age structure).
9. The wording of the questions follows that developed in recent Australian deprivation research (see Saunders *et al.* 2007; Saunders and Naidoo 2009; Saunders and Wong 2012).
10. The data generated in the survey have been used by Oxfam in a recent report on working poverty and the impact of the minimum wage in Hong Kong (see Oxfam 2012).
11. We acknowledge that the construction of the MDIS assumes that each item is assigned an equal weight and that items can be aggregated into a summary measure. Both assumptions can be varied and studies have done so, although there is no agreement on how this should be done and results like those presented here do not appear to be overly sensitive to such changes.
12. A notable exception is the recent study by Bradshaw and Mayhew (2011) conducted for the European Commission. See, in particular figure 9.2 of the study which plots an EU average deprivation score by percentiles of net income to establish whether or not a threshold exists.
13. The information on income was collected in ranges and an exact estimate has been imputed using random assignment within each range. This is likely to produce errors and this should be kept in mind. Income has been equivalised using the modified OECD scale that assigns a weight of 1 to the first adult, 0.5 to each subsequent adult (aged 14 and over) and 0.3 to each child (aged under 14).
14. These definitions have been deliberately chosen because they produce approximately equal estimates of the incidence of poverty and deprivation. This ensures that the size of the overlap is similar when expressed as a percentage of either the deprivation rate or the poverty rate.
15. The poverty rate shown in table 5 is not equal to 20 per cent because of missing values (not all survey respondents provided the information needed to estimate both their poverty and deprivation status).

References

Berthoud, R., Bryan, M. and Bardarsi, E. (2004), *The Dynamics of Deprivation: The Relationship Between Income and Material Deprivation Over Time*, Research Report No. 219, London: Department for Work and Pensions.

Boarini, R. and d'Ercole, M. M. (2006), *Measures of Material Deprivation in OECD Countries*, Working Paper No. 37, Directorate for Employment, Labour and Social Affairs, Paris: OECD.

Bradshaw, J. (ed.) (1993), *Budget Standards for the United Kingdom*, Aldershot: Avebury.

Bradshaw, J. and Finch, N. (2003), Overlaps in Dimensions of Poverty, *Journal of Social Policy*, 32, 4: 513–25.

Bradshaw, J. and Mayhew, E. (2011), *The Measurement of Extreme Poverty in the European Union*, Brussels: European Commission Directorate-General for Employment, Social Affairs and Inclusion.

Callan, T., Nolan, B. and Whelan, C. T. (1993), Resources, Deprivation and the Measurement of Poverty, *Journal of Social Policy*, 22, 2: 141–72.

Census and Statistics Department (2011), *Population by Age Group and Sex*, http://www.censtatd.gov.hk/hkstat/sub/sp150.jsp?subjectID=60&tableID=002&ID=0&productType=8 (accessed 1 January 2012).

Chow, N. W. S. (1981), Measuring Poverty in an Affluent City: The Case of Hong Kong, *Asian Journal of Public Administration*, 177–94.

Chow, N. W. S. (1983), *The Extent and Nature of Poverty in Hong Kong*, Resource Paper Series, Department of Social Work, University of Hong Kong.
Gordon, D. (2006), The Concept and Measurement of Poverty. In C. Pantazis, D. Gordon and R. Levitas (eds), *Poverty and Social Exclusion in Britain. The Millennium Survey*, Bristol: Policy Press, pp. 29–69.
Gordon, D. and Townsend, P. (eds) (2000), *Breadline Europe. The Measurement of Poverty*, Bristol: Policy Press.
Hong Kong Council of Social Service (2013), *Research Study on Deprivation and Social Exclusion in Hong Kong*, Hong Kong: Hong Kong Council of Social Service.
Lau, M. K. W. (2005), Research for Policy: Mapping Poverty in Hong Kong and the Policy Implications, *Journal of Societal & Social Policy*, 4, 3: 1–16.
Liu, E. and Wu, J. (1998), *The Measurement of Poverty*, Hong Kong: Research and Library Services Division, Provisional Legislative Council Secretariat.
Mack, J. and Lansley, S. (1985), *Poor Britain*, London: George Allen and Unwin.
MacPherson, S. (1994), *A Measure of Dignity. Report on the Adequacy of Public Assistance Rates in Hong Kong*, Hong Kong: Department of Public and Social Administration, City Polytechnic of Hong Kong.
Maître, B., Nolan, B. and Whelan, C. T. (2006), *Reconfiguring the Measurement of Deprivation and Consistent Poverty in Ireland*, Policy Research Series Number 58, Dublin: Economic and Social Research Institute.
Mok, H. and Leung, S-O. (1997), *Poverty Rate of Hong Kong*, Hong Kong: Hong Kong Social Security Society.
Nolan, B. and Whelan, C. T. (1996), *Resources, Deprivation and Poverty*, Oxford: Clarendon Press.
Organisation for Economic Co-operation and Development (OECD) (2008), *Growing Unequal? Income Distribution and Poverty in OECD Countries*, Paris: OECD.
Organisation for Economic Co-operation and Development (OECD) (2011), *Divided We Stand: Why Inequality Keeps Rising*, Paris: OECD.
Oxfam (2012), *Before and After the Statutory Minimum Wage Ordinance in Hong Kong: Survey of Low-Income Workers and their Families*, Hong Kong: Oxfam.
Pantazis, C., Gordon, D. and Townsend, P. (2006), The Necessities of Life. In C. Pantazis, D. Gordon and R. Levitas (eds), *Poverty and Social Exclusion in Britain. The Millennium Survey*, Bristol: Policy Press, pp. 89–122.
Piachaud, D. (1981), Peter Townsend and the Holy Grail, *New Society*, September: 419–21.
Ringen, S. (1988), Direct and Indirect Measures of Poverty, *Journal of Social Policy*, 17, 2: 351–65.
Ruggles, P. (1990), *Drawing the Line: Alternative Poverty Measures and their Implications for Public Policy*, Washington, DC: The Urban Institute.
Saunders, P. (2011), *Down and Out: Poverty and Exclusion in Australia*, Bristol: Policy Press.
Saunders, P. and Naidoo, Y. (2009), Poverty, Deprivation and Consistent Poverty, *The Economic Record*, 85, 271: 417–32.
Saunders, P., Naidoo, Y. and Griffiths, M. (2007), *Towards New Indicators of Disadvantage: Deprivation and Social Exclusion in Australia*, Sydney: Social Policy Research Centre, University of New South Wales.
Saunders, P. and Wong, M. (2012), *Promoting Inclusion and Combating Deprivation: Recent Changes in Social Disadvantage in Australia*, Sydney: Social Policy Research Centre, University of New South Wales.
Townsend, P. (1979), *Poverty in the United Kingdom*, Harmondsworth: Penguin Books.
United Nations Development Programme (UNDP) (2010), *Human Development Report 2010. The Real Wealth of Nations: Pathways to Human Development*, New York, NY: Palgrave Macmillan.

Ward, T. (2009), Material Deprivation. In T. Ward, O. Lelkes, H. Sutherland and I. G. Tóth (eds), *European Inequalities. Social Inclusion and Income Distribution in the European Union*, Budapest: TÁRKI Social Research Institute, pp. 117–30.
Whelan, C. T. and Maître, B. (2007), Measuring Material Deprivation With EU-SILC: Lessons From the Irish Survey, *European Societies*, 9: 147–73.
Whelan, C. T., Nolan, B. and Maître, B. (2008) *Measuring Material Deprivation in the Enlarged EU*, Working Paper No. 249, Dublin: Economic and Social Research Institute.
Wong, H. (2005), *Report on Basic Needs Study in Hong Kong*, Hong Kong: Hong Kong Council of Social Service.
Wong, H. (2012), Poverty in Hong Kong: An Overview, mimeo, Hong Kong: Department of Social Work, The Chinese University of Hong Kong.
Wong, H. and Chua, H-W. (1996), *Research on Expenditure Pattern of Low Expenditure Households in Hong Kong*, Hong Kong: Hong Kong Council of Social Service and Oxfam.