Evaluating and Choosing Target Market Priorities

"As a young boy walked along the beach at dawn, he noticed an older man picking up starfish and tossing them into the sea. Catching up with the man, the boy asked why he was doing this. The older man explained that the stranded starfish would die if left in the morning sun.

"But the beach goes on for several miles, and there are millions of starfish,' exclaimed the boy. How can you possibly make a difference?'

"The old man looked at the starfish in his hand and, as he threw it safely back into the sea, said to the young boy, 'I will make a difference to that one."

—Adapted from *The Star Thrower* by Loren Eiseley¹

Choosing target market priorities is a difficult, if not painful, assignment, especially when it comes to poverty. As with the starfish, what happens to the ones you don't "pick up"? Where is the satisfaction in only making a dent with a few, when so many are left behind? Others recognize that they can't help everyone. When they tried this approach in the past, they ended up not really helping anyone.

We think the reality is that most organizations do in fact identify and choose priority markets for their efforts. What is often missing, though, is the use of rigorous analytical models to accomplish this. Not only do we believe this will make you and others "feel better," we trust this is the best approach for doing the most good in moving the most people up and out of poverty. It will also help ensure that you will achieve the greatest return on your investment.

At this point in your planning, you have identified several potential groups for the focus of your efforts. The task now is to prioritize them, perhaps choosing only one or two for near-term resource allocation. This chapter presents several models that have been used to evaluate potential target market segments, enabling you to then establish these priorities.

We'll use the issue of homelessness to illustrate most of these models. We'll begin with a case story from the Bill & Melinda Gates Foundation that exemplifies the need for and success with this prioritization approach.

Sound Families: A Bill & Melinda Gates Foundation Homeless Initiative in Washington State

"I have lived here (Seattle) all my life, and it is no honor to be known for how many mothers in our community put their children to bed in the backseats of their cars.... Our city takes pride in what Seattleites have accomplished. We made the home computer a standard appliance. We made virtually every book in the universe available with a few keystrokes. We even convinced you to spend \$4 on a cup of coffee. But one thing we haven't done is provide the most basic shelter for all our families.... And that is our shame."²

—William H. Gates, Sr. National Conference on Ending Family Homelessness February 7, 2008

The Bill & Melinda Gates Foundation is well known for its work in education and global health. But an initiative launched

in 2000 has been an effort on a much smaller scale to address an issue closer to home—keeping kids from growing up in cars and shelters and on the streets by helping parents secure stable housing and move toward self-sufficiency. This case story describes why the Foundation made this homeless segment a priority, what strategies they used to help move this group into real homes, and how things turned out.

Background and Segment Options

On any given night in the United States, approximately 540,000 people are homeless. In Washington State alone, 22,045 individuals were counted as homeless one night in January 2007. Over the course of a year, the total number of homeless persons in the state is estimated to be 40,000 to 50,000 or more.³ Based on standardized counting systems used by the state, we also know more about this macro market and the micro segments within (see Table 5.1).

TABLE 5.1 Subpopulations of the Homeless Population⁴

Homeless Subpopulations	Total in Shelters	Percentage
People with substance use disorders	3,070	19.8%
People with mental health disorders	2,729	17.6%
Survivors of domestic violence	2,482	16.0%
People with physical disabilities	1,359	8.8%
Veterans	1,165	7.5%
People with co-occurring substance use and mental health problems	1,097	7.0%
Unaccompanied youth	431	2.8%
Seniors	243	1.6%
Persons with HIV/AIDS	188	1.2%
Agricultural workers	23	.2%
Chronically homeless	2,706	17.5%
Total	15,493	100%

Source: Washington State Community and Economic Development, January 2007

Many people are surprised to learn that almost half (46%) of those who are homeless are families with children (see Table 5.2). Although the majority of these families at any given time are in emergency or temporary shelters, more than a thousand are not.

TABLE 5.2 Homeless Families with Children in Washington State: Point-in-Time Count of Homeless People, 2007⁵

	Sheltered	Unsheltered	Total	Percentage
Homeless individuals	7,124	4,835	11,959	54%
Persons in homeless families with children	8,827	1,259	10,086	46%
Total	15,951	6,094	22,045	100%
Homeless families with children	3,236	462	3,698	N/A

Source: Washington State Community and Economic Development, January 2007

A New Foundation Priority

The sheer size of the homeless population in Washington State and the fact that families with children were one of the fastest-growing homeless populations caught the Foundation's attention in 2000. Other factors (segment characteristics) then solidified this commitment. Consider the likelihood that children moving around constantly in search of shelter will fall behind in school, and that they will struggle to build reliable social networks which are essential to growing up to be confident, trusting adults. The parent or parents in these families face added challenges, finding it hard to work at the same time that they are caring for their children and trying to hold the family together. The societal impact grows even more significant when you consider the increased risk that these families will break up and these children will end up in foster care.

In order to determine how to best help families move beyond

Objectives, Goals, and Strategies

homelessness, the Foundation studied national findings and listened to local partners. They learned two key facts: Many families in Washington State lack affordable housing, and families need more than a roof over their heads. They need a range of closely linked support services to help bring real stability to their lives and, most importantly, move toward self-sufficiency. The Bill & Melinda Gates Foundation, in coordination with public sector partners from the Puget Sound region, Washington State, and the federal government, launched the Sound Families Initiative in 2000 with the ambitious goal of tripling the supply of transitional housing with support services for homeless families in Pierce, King, and Snohomish countiesthree of the most densely populated counties in western Washington. Sound Families was started with a \$40 million commitment from the Foundation, and over the next seven years, private and public entities invested more than \$200 million in additional funds to address family homelessness. The goal was to build 1,500 units of service-enriched transitional housing, tripling the amount in the three counties that make up the Puget Sound region of Washington State. In keeping with the Foundation's investment philosophy, priority grants would be for grantees who would bring long-term, broad-based solutions to homelessness for families through community-based partnerships. And consistent with their objective of eventual self-sufficiency, this housing would need to be combined with social services that would help homeless families both move on and decrease their chances of returning to homelessness. Grantees would respond to requests for proposals that were to be issued biannually over several years and selected through a competitive process.

The initiative supported what is called service-enriched housing, an innovative approach to homelessness that combines affordable housing and social services, to help homeless families move toward self-sufficiency and decrease their chances of returning to homelessness. This provides homeless families with a home for up to two years and social services to help them prepare for a stable and self-sufficient future—services that address the underlying causes of homelessness. Families were assigned a case manager to help them access a wide range of services designed to meet specific needs, including domesticabuse counseling, alcohol and drug treatment, a GED program, job training, job searching, and child care.

Partnerships were the foundation for success and would rely heavily on collaborative relationships among nonprofit and for-profit housing developers, property managers, service providers, and local housing authorities. Grants were provided to nonprofit organizations such as YWCAs, working with government agencies at various levels and relied in part on state tax credits; federal housing subsidies; and a patchwork of local, state, and federal funding (see Figure 5.1).

Outcomes

In December 2007, an evaluation of the Sound Families Initiative was prepared for the Bill & Melinda Gates Foundation by the Northwest Institute for Children and Families at the University of Washington's School of Social Work. It provided a closer look at these families' lives during and after their supportive transitional housing.



FIGURE 5.1 Typical scene at Sound Families housing
Photo courtesy of the Bill & Melinda Gates Foundation/Jennifer Loomis

It was reported that by 2007, 1,445 units were funded, serving almost 1,500 families with more than 2,700 children, with the average length of stay at just over 12 months (see Figures 5.2 and 5.3). It described the demographics of the families:⁶

- 85% were headed by single caregivers, typically a single mother.
- Half the families had one child living with them, one fourth had two, and one fourth had three or more children.
- The average age of primary caregivers was 31 years, and the average child age was 6.5 years.
- Half of primary caregivers were Caucasian/non-Hispanic; one fourth were African-American; and one fourth were Hispanic/Latino, American Indian, Asian-American, Native Hawaiian, or multiracial.

- 70% of primary caregivers had at least a high school diploma or GED when entering the program.
- 64% of families had been homeless before, some four or more times.
- 44% came from an emergency shelter and 30% from relatives' or friends' homes.
- Several precipitating causes of homelessness were reported by case managers. They included lack of affordable housing or a living wage, loss of income, and domestic violence.

Importantly, relative to the program's objectives, two thirds (68%) of all exiting families moved into permanent, non-time-restricted housing after an average of 12.3 months in the housing program. This rate was even higher among the families who successfully completed the service-enriched aspects of the program, with 89% moving on to permanent housing. A majority of these families were able to maintain the permanent housing over time. Additional good news included the finding that full-time employment tripled from entry to exit.⁷

Encouraged by the overall gains made by Sound Families, the Washington State Legislature created the Washington Families Fund in 2004, a first-of-its-kind, public-private partnership devoted to long-term funding for service-enriched affordable housing for families throughout the state. As of November 2008, \$9.3 million has been awarded to 28 partnerships statewide, creating 389 units of service-enriched housing.



FIGURE 5.2 One of the Sound Families enjoying their new home Photo courtesy of the Bill & Melinda Gates Foundation/Karie Hamilton



FIGURE 5.3 Another one of the Sound Families enjoying their new home

Photo courtesy of the Bill & Melinda Gates Foundation/Jennifer Loomis

Models for Evaluating Segments

Five potential models to evaluate and prioritize segments are described in the following sections, starting with one that uses a single analytical factor and progressing to those using multiple factors for decision-making:

- Using levels of poverty
- Using a triage model
- Using the stages-of-change model
- Using multiple factors
- Using poverty mapping

The concluding section of the chapter discusses considerations for choosing from among these models.

Using Levels of Poverty

This seemingly simplistic model uses only one criterion for evaluating and then choosing market segment priorities—level of poverty. For each of the micro-markets identified in a segmentation exercise, estimates of levels of poverty are developed and presented for consideration. This model is illustrated hypothetically in Table 5.3 for homeless families in a state. Providing this data to an organization such as the Bill & Melinda Gates Foundation would be useful in prioritizing market segments for future initiatives. As discussed in Chapter 4, "Segmenting the Poverty Marketplace," this data can be inspirational. You can imagine different approaches and types of assistance for a single mom in extreme poverty than for a family with both parents who are out of, but vulnerable to, poverty.

Moving on to choosing target priorities based on the numbers and potential long-term impact, program managers might decide that this large group of 4,000 families who are vulnerable to slipping (back) into poverty would be a viable primary market for focus. This segment would then need to be further analyzed to identify unique

subgroups, potentially then resulting in a target priority within this group (such as parents who are non-English-speaking).

TABLE 5.3 Hypothetical Distribution of Homeless Families and Individuals in a State

	Single Parent and Children	Both Parents and Children
Size	5,000	5,000
Out But Vulnerable	1,000	4,000
	20%	80%
Relative Poverty	500	500
•	10%	10%
Moderate Poverty	500	400
•	10%	8%
Extreme Poverty	3,000	100
	60%	2%
	100%	100%

Using a Triage Model

As its name suggests, the triage model applies a medical model to evaluating potential market segments for poverty efforts based on three criteria:

- The number and percentage of people in the segment who are *poor*
- The number and percentage of people in the segment who are likely to escape the vicious poverty cycle in the *shortest period* of time and requiring the fewest resources
- The probability that this segment will stay out of poverty

To illustrate its application, we first turn our attention to a garbage dump in the Philippines and then to nearby coastal fishing villages. We'll then discuss application of the triage model to helping decide which segment should be a priority for the country's poverty relief funds.

Segment 1: The Scavengers

It may be hard for many people to imagine, but living off of garbage is the daily reality for the thousands who have dug through the 130-foot mountain of garbage outside Manila in the Philippines. Every day, well before dawn, hundreds of residents who live in the nearby slums make their way to the gates of Payatas, the city's biggest garbage dump, which ironically translates into "Promised Land." Teams of scavengers, wearing headlamps and carrying wicker baskets, search each truckload of fresh trash for items they can refurbish or recycle and then sell (see Figure 5.4).



FIGURE 5.4 A mangangalahig, or scavenger, atop the 130-foot garbage mountain at the Payatas Dump, Quezon City, Philippines Photo: © Matthew Power. 2006

Cottage industries thrive as thousands, including children, sort through the baskets that are then brought back to the slums (see Figure 5.5). Treasures include foam rubber that is washed and dried before being glued into strips to make mattresses; piles of discarded backpacks that will be washed, repaired, and sold in markets in the poorer districts of Manila; and paper that, when dried, can be sold to recycling agents. The community is poor, but close. Their hope is that by having the whole family working (even those as young as four years old), they will each make two U.S. dollars a day, about twice the national mean income.⁸



FIGURE 5.5 An 8-year-old scavenger at a waste transfer station on the Manila waterfront

Photo: © Matthew Power, 2006

A study by the Asian Development Bank in 2005 estimated that about 150,000 residents are dependent, in one way or another, on the city's 500 tons of household garbage that are collected each day. This same study found that less than 10% of the city's garbage is recycled. Many city leaders are concerned about the health and well-being of these scavengers, as well as the fact that there was no comprehensive, overall waste management plan to deal better with the city's waste.⁹

Segment 2: The Fishermen

Fishermen and their families in coastal communities are among the poorest sectors of Philippine society. Multiple factors threaten their livelihood, including overfishing, destructive fishing, and pollution caused by discharges from canning companies, personal care and beauty product makers, and other manufacturing establishments. The presence of large commercial fishing vessels eliminates the option of catching fish further out to sea. And to add to this challenge there has been a dramatic rise in the numbers seeking to fish for a living, due to the poor state of land resources, with prime agricultural lands diminishing due to land conversion. ¹⁰

First, we acknowledge that country leaders would be interested in creating strategies to support both segments, and are doing just that. Our hypothetical discussion here, however, is what if you were asked to decide which segment should be focused on first, or most? Would the triage model help? As shown in Table 5.4, based on hypothetical scoring, it might be easy to argue that the fishermen need the most poverty relief attention in the near term and that resources should be allocated for providing job training for new industries, increased food subsidizes, healthcare, and temporary housing. Longer-term strategies could seek to reverse the depletion of coastal resources and engage citizens in their stewardship. And perhaps the best thing to do for the scavengers is to create policies that help legitimize their industrious actions, give them a more formal role, not allow children to work, and add more rigorous health standards in the environment.¹¹

Segment 2: Segment 1: The Scavengers The Fishermen Number who are poor Lower levels Higher levels Number who are likely to escape poverty in the shortest time (requiring the fewest resources) Similar levels Similar levels Probability that this segment will Lower levels stay out of poverty Higher levels

TABLE 5.4 Hypothetical Comparison of Two Segments Using the Triage Model

Using the Stages-of-Change Model¹²

The stages-of-change model is also called the *transtheoretical model*. It was originally developed by Prochaska and DiClemente in the early 1980s. ¹³ It has been tested and refined over the past two decades. In a book published in 1994, *Changing for Good*, Prochaska, Norcross, and DiClemente describe six stages that people go through to change their behavior. ¹⁴ Four of these stages are presented in this section—those relevant to most poverty-related issues.

We'll continue with this chapter's focus on homelessness to illustrate each stage. Let's assume that the focus is on families that have children and two parents being screened for transitional housing. Assume further that there is space for only one in 10 applicants. Also, funders are most interested in admitting those who will attend regular job counseling sessions and apply for a full-time job within a month of moving into their housing (the desired behavior).

Precontemplation. "People at this stage usually have no intention of changing their behavior, and typically deny having a problem." In the case of an effort to influence a parent to attend job counseling and apply for a job, this segment is not

- really serious about it. They've tried before and have little faith that they'll find a job they want or that will pay enough. They'd rather continue to get public assistance than work in the types of jobs they would readily qualify for, and they think the job counseling is a waste of time.
- Contemplation. "People acknowledge that they have a problem and begin to think seriously about solving it." Or they may have a want or desire, and have been thinking about fulfilling it. This segment wants a job, and they think the job counseling is a good idea for most people, but they are concerned they will fail. Because their situation is so unique, they worry that the counseling won't help. They may offer excuses when invited to attend, and may not follow up on job opportunities because they fear rejection.
- Preparation/In Action. "Most people in the Preparation Stage are (now) planning to take action ... and are making the final adjustments before they begin to change their behavior." Those in this segment are interested in attending the counseling sessions and look forward to the process, but most of it is new for them. They are very likely to attend the classes. They've even put the classes on their calendar in case they get into the transitional housing unit they have applied for.
- Maintenance. "During Maintenance (individuals) work to consolidate the gains attained during the action and other stages and struggle to prevent lapses and relapse." This segment has already started applying for jobs and has a few good potential offers. They are looking forward to the counseling sessions because they think the counseling will give them a chance to get an even better job—one that pays more, has better hours, and offers opportunities for advancement.

Many social marketers generally find two of these four segments the most attractive, based on the perceived rate of return on investment of resources to influence behaviors: *Contemplators* and those who are *Preparing/In Action*. Those in Contemplation are open to the behaviors we have in mind (attending counseling sessions and applying for jobs) and don't require the same motivational and "mind-changing" efforts as those in Precontemplation. And certainly those

in Preparation/In Action have demonstrated their interest and will benefit from encouragement and a little hand-holding. You could argue from a prioritization perspective that those in Maintenance are also a lower priority for resource allocation because they need less of your attention (such as reminder calls) to ensure that they will follow through on their intentions for employment.

Using Multiple Factors

Professor Alan Andreasen at Georgetown University cites nine factors for evaluating segments relative to each other and then using the results to systematically prioritize market segments. ¹⁹ In the following list, these factors have been adapted to be most relevant for poverty-related issues, with typical questions that might be asked to establish each measure. To illustrate each factor, we'll again use the issue of homelessness and offer questions that should be considered to arrive at a score for each segment, for each criterion:

- 1. Segment size. How many people are in this segment? What percentage of the population do they represent?
 - For each of the segments under consideration for initiatives, how many people are homeless, and what percentage of the homeless population in the country do they represent?
- **2.** Problem incidence. How many people in this segment are either engaged in the "problem-related behavior" or not engaged in the "desired behavior"?
 - For each segment, what is the average length of time they have been homeless, and how often? What percentage are accessing emergency or transitional shelter versus living unsheltered?
- **3.** Problem severity. What are levels of poverty in this segment? How poor is this homeless group? What percentage of each segment are in extreme poverty, moderate poverty, relative poverty and are vulnerable to falling back into poverty?

4. Defenselessness. To what extent can this segment "take care of themselves" versus needing help from others?

How do the segments compare relative to health status, education, job skills, income, and other personal resources such as family support? Which group is perceived as being the most likely to succeed without your help?

5. Reachability. Is this an audience that can be easily identified and reached?

Can the homeless people in this segment be found efficiently and communicated with effectively? Are they homogeneous enough that they will respond to similar strategies and interventions?

6. Readiness to change. How "ready, willing, and able" to respond are those in this segment?

What are the estimated percentages of those in Precontemplation, Contemplation, Preparation/In Action, and Maintenance? Or, which groups are perceived to have the fewest numbers in Precontemplation?

7. Incremental costs to reach and serve. How do estimated costs to reach and influence this segment compare with those for other segments?

For each of the homeless segments, do existing services currently reach the segments that could be used, or would serving this segment require additional capacity or even new services?

8. Responsiveness to marketing mix. How responsive is this market likely to be to social marketing strategies (product, price, place, and promotion)?

Will this segment welcome services such as job training, anger management, drug and alcohol treatment, and mental health counseling? Will they respond positively to potential available incentives such as free meals? Can they access these services, or are there significant cognitive, language, transportation, or other barriers to successful influence?

9. Organizational capabilities. How extensive is our staff expertise or availability to outside resources to assist in the development and implementation of activities for this market?

What resources will be needed to serve this segment? Will this require reaching out to other individual and partners in order to adequately serve the market? How likely is it that these resources can be secured?

We recognize that the availability of data to answer these questions for all segments with precision is indeed idyllic, and that researching and developing these estimates is a rigorous exercise. Consider, however, the rewards that can be experienced, as shared in the case story in the following sidebar.

Whatcom County Coalition for the Homeless: Evaluating and Prioritizing Market Segments

Greg Winter Cornerstone Strategies

Following passage of Washington State's Homeless Housing and Assistance Act in 2005, the Whatcom County Coalition for the Homeless reexamined its existing strategies and concluded that its work was fragmented—focused on *managing* but not *ending* homelessness.

As called for in the revised 2008 Whatcom County 10-Year Plan to End Homelessness, this project proposes a shift in focus from emergency response strategies to prevention and long-term housing. This systems-change approach, affecting all homeless subpopulations, increases the efficiencies of the existing homeless housing infrastructure, which consists of low-rent housing, transitional housing, and emergency shelter. At the same time, it saves money by diverting some individuals from high-cost institutional facilities.

Descriptions of Segments

The old way of managing homelessness frequently served homeless households based on demographic characteristics of interest to

particular nonprofit service providers (domestic violence survivors, families with young children, youth). The community's desire to serve *all* subpopulations within the new system presented a challenge to program planners charged with projecting service costs. Using the same old demographic categories would be easy—that's how the needs assessments had always been done—but that method had two drawbacks. First, it emphasized the same kind of "favored subpopulations" that the Coalition wanted to avoid in the future. And second, it ignored the large variance in housing stability barriers that exists within any of those subgroups.

A more useful and practical approach to segmenting the homeless services market was to categorize the homeless by their level of housing barriers. This has the benefit of dividing the market based on the relative costs of interventions, which facilitates service planning and accurate cost forecasting. Whatcom County's Homeless Services Center uses the following segmentation scheme to design and deliver services:

- The At Risk segment is at imminent risk of homelessness (eviction) but is not yet homeless. Members of this segment have typically experienced a setback, such as an illness that prevents them from working, family breakup, or other loss of income that has prevented them from paying their rent. Intervening with one-time financial assistance is often all that is needed to prevent an episode of homelessness.
- The *Homeless with Hope* segment is currently homeless but has only low-to-moderate housing barriers. For example, they have job skills but have experienced long-term unemployment. They may be doubling up with another household or living in an emergency shelter or in transitional housing. Secondary intervention consists of shallow, short-term rent assistance and a modest amount of case management to help these households retain their new permanent housing.
- The *Chronically Homeless* segment has severe housing barriers. Most suffer from one or more disabling conditions, including severe mental illness and chemical dependency. They are either unsheltered or living in emergency shelter.

Tertiary intervention for this segment includes deep longerterm rent subsidy, engagement with mainstream services (such as Medicaid), and intensive case management. Because of this segment's high use of expensive public services (jails, hospital emergency departments), the high intervention costs may be more than offset by public cost savings due to reduced reliance on these more expensive public services.

In Table 5.5, these segments are analyzed using Andreasen's nine factors. A scale from 1 to 5 is used, with 5 indicating that this segment is very appealing as a target for this characteristic.

TABLE 5.5 Whatcom County, Washington State: An Evaluation of Homeless Market Segments for Prioritization

	At Risk	Homeless with Hope	Chronically Homeless
	300	1,200	150
Segment Size			
5 = Largest			
1 = Smallest	3	5	3
Problem Incidence			
5 = Low rate of homelessness			
1 = High rate of homelessness	1	3	5
Problem Severity			
5 = Extreme poverty			
1 = At risk for poverty	2	3	5
Defenselessness			
5 = Need our help the most			
1 = Need our help the least	2	3	5
Reachability			
5 = High likelihood we can reach them			
1 = Low likelihood we can reach them	4	5	3
Readiness to Change			
5 = High percentage of readiness			
1 = Low percentage of readiness	5	4	3
			(continued

TABLE 5.5 Continued			
	At Risk	Homeless with Hope	Chronically Homeless
	300	1,200	150
Incremental Costs to Reach and Se	rve		
5 = Low incremental costs			
1 = High incremental costs	3	2	5
Responsiveness to Potential Interve	entions		
5 = High likelihood			
1 = Low likelihood	5	4	3
Organizational Capabilities			
5 = Can serve with existing resources			
1 = Will need additional resources	5	3	3
Average Score	3.3	3.6	3.9

The individual evaluation elements highlight the advantages, disadvantages, and challenges associated with serving each segment. Strong reasons to serve the At Risk segment include high readiness to change, low cost to serve, high response to intervention, and existing organizational capacity to provide appropriate interventions. Homeless with Hope households comprise the largest market segment, and they are easy to reach. Chronically Homeless individuals are extremely poor and relatively defenseless. The high incremental cost of serving this segment, however, is offset by the reduced public costs of alternative services such as crisis response, incarceration, and emergency room visits.

These last factors associated with the Chronically Homeless segment led program planners to allocate a disproportionate share of available resources to serving this group. This segment comprises only 9% of the households served annually; however, the community will invest 51% of available resources to provide them with stable housing and supportive services, as shown in Table 5.6.

Homeless Market Segment	Households Served Per Year	Annual Cost Per Household Served (Rent Subsidy Plus Case Management)	Total Annual Cost	Percentage of Annual Cost
At Risk	300	\$600	\$180,000	18%
Homeless with Hope	150	\$2,000	\$300,000	30%
Chronically Homeless	45	\$11,300	\$508,500	51%
Total	495	\$13,900	\$988,500	100%

Using Poverty Mapping

The World Bank describes poverty mapping as "the spatial representation and analysis of indicators of human well-being and poverty within a region."20 Macro-market indicators (such as mean poverty levels in a geographic area) often hide important differences that distinguish micro-markets (such as neighborhoods). Poverty mapping analyzes available social and economic indicators for a geographic area to locate the poor, profile their conditions, and identify povertyrelated determinants in that area. The results are often presented in a series of maps, accumulated from one year to the next. The time series can show how a certain locality's poverty situation is getting better or worse, or how one group of poor people in one locality is getting out of poverty, or how another may be sinking deeper. Once a geographic area (country, region, city, or village) has been mapped by poverty levels, you can more quickly pinpoint priority areas for intervention and development. And this tool becomes even more powerful when these poverty statistics are combined with data from other local assessments, ones related to access to services, and availability and condition of natural resources, transportation, and communication networks.

How Are Poverty Maps Built?

Assessment information comes from a variety of sources, including census data and household surveys that are used to provide indicators of income (such as income per capita) and well-being (such as life expectancy, child mortality, or literacy). An additional critical source of information is administrative or community data. For example, information on the transportation network in a village and its quality can be used to estimate the distance or travel time that communities face to reach essential goods and services such as schools, health centers, clean water, and markets. Other critical data sources, especially for determining appropriate interventions, include information on environmental factors such as rainfall and agricultural conditions, ones that can be used to develop monitoring systems and assess adequacy of food supplies. Sometimes these various indicators are then combined with other information systems to give an index of poverty or human development (such as the Human Development Index, a composite of life expectancy, literacy, and income).²¹ Geographic Information Systems (GISs), made possible by computer software programs, are used to create the maps and allow the simultaneous analysis of information from a variety of sources, as long as they have common geographic location coordinates.²²

What Are Poverty Maps Used For?

These maps are powerful visual tools for presenting complex information in a format that makes it easy to understand, especially for a nonspecialist audience. They can be used to help understand poverty determinants, because they can simultaneously display outcomes (income, incidence of diseases, school enrollment) and determinants (school locations, conditions of natural resources, availability of governmental services).

The following case story from Indonesia demonstrates how this disaggregated information was useful in identifying critical areas for focus and factors that then informed budget allocations, program design, and targeting.

Indonesia's Poverty Maps: Impacts and Lessons²³

Highlights from Chapter 9 of the World Bank's 2007 Publication

"More Than a Pretty Picture: Using Poverty Maps to Design Better Policies and Interventions"

Chapter Authors: Yusuf Ahmad and Chor-Ching Goh

Indonesia is a large country with over 230 million people, the fourth most populous in the world (2007). Although the country was very successful in reducing poverty between 1960 and 1990, an estimated 37 million people were still living in extreme poverty in 1990, surviving on less than a dollar a day. By early 2000, the government was expressing immense interest in the poverty-mapping approach developed by a World Bank research team, combining existing information from a household survey with a population census to estimate and compare the economic welfare of small areas in the country.²⁴

The mapping exercise relied on three sources of data: a 1999 socioeconomic household survey, the 2000 population census, and the 1999 village census. It was the first occasion on which all of these data sets were combined.

Impacts

Since their distribution in December 2004, these national poverty maps have been used in various applications by government agencies, donors, and nongovernment organizations. They helped the *Ministry of Finance* determine where unconditional cash transfers should be provided to the poor as a result of cutting fuel subsidies. They helped the *Ministry of Education* select beneficiary areas for its special programs, including the Skills-for-a-Living Program, the Mainstream Gender in Education Program, and the Prevention of Women Trafficking Program. They helped the *Ministry of Social*

Affairs and the *United Nations* cross-check information in their databases. They helped the *World Food Programme* select beneficiary areas using nutrition maps. And they helped the *World Bank* develop policy advice for the Indonesian government.

In addition to these specific impacts, the authors of this chapter indicated that many officials expressed that the poverty maps have highlighted the issue of poverty and energized the government to focus on poverty reduction.

Lessons Learned

The authors cited four lessons learned from Indonesia's experience:

- Consultation and effective dissemination are needed to dispel skepticism, foster dialogue, and encourage use.
- In fulfilling the goal of building local capacity, avoid creating parallel, potentially competing maps.
- Ensure the internal cohesion of the agency that produces the maps.
- Make potential users aware of the wide-ranging applications of poverty maps, and emphasize that poverty maps are complementary to (rather than a substitute for) other antipoverty information tools.²⁵

Summary: Which Model Should Be Chosen?

This chapter introduced five models for evaluating segments, beginning with one using only one major factor, and progressing to those that are multifactorial in nature:

- Using levels of poverty
- Using a triage model
- Using the stages-of-change model
- Using multiple factors
- Using poverty mapping

We recommend using a Multiple Factors model, one similar to Andreasen's Nine Factors: size, problem incidence, problem severity, defenselessness, reachability, readiness to change, incremental costs, responsiveness, and organizational capabilities. Although these nine are likely to be applicable for most situations, you could certainly omit or add factors that are more relevant for your particular situation (such as a match for a grant priority). After that, we further recommend that you "map" the priority segments.

The Multiple Factors model requires additional data, which admittedly is difficult to pinpoint in many cases, and analysis is more rigorous, often requiring more time and resources to complete. However, this model has many benefits. You and others can be sure you have considered a comprehensive list of decision criteria. You can present strong arguments for priority segments, because you back decisions with objective data. This quantification also helps with resource allocation, often the most controversial issue, especially for public agencies.

After that, we recommend that you then use the Poverty Mapping model to locate and track the priority segments. This model makes it easier to communicate your strategies with decision makers and colleagues, because it gives you a quick understanding of where you will focus your efforts in a geographic area. We also like the fact that you can simultaneously overlay environmental factors and other poverty determinants on the map, providing inspiration for strategies you might need to employ (such as improving access to healthcare). Finally, you can track and then hopefully report (literally show) progress, again in a strong visual way, to funders, colleagues, and decision makers.

Endnotes

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