

MEASURING CUBAN PUBLIC OPINION: METHODOLOGY

Churchill Roberts

Traditional methodologies for gauging public opinion are unavailable to researchers who wish to study the attitudes and behavior of the people of Cuba. First of all, there is limited access to Cuba. Any polling organization would have to have government approval and would be closely monitored. A second problem is that, for all practical purposes, there are no Cuban tourists who travel abroad. At least in the case of the former Soviet Union, a small number of tourists traveled to places such as Helsinki and Vienna and provided an opportunity for researchers to gather data on media use and a host of other activities. And while phone service to Cuba has vastly improved in the past few years, normal telephone sampling would be highly suspect inasmuch as Cubans would likely be distrustful of strangers calling and asking questions about life on the island. Even under the best of circumstances, researchers would have to be concerned about the validity of their data. Cubans have a long history of having their conversations and behavior monitored and reported and would likely be cautious or even evasive in expressing any opinion which they thought might be perceived unfavorably by an interviewer.

In the 1980s, a number of public opinion surveys of recent emigres from Cuba were commissioned by Radio Martí. Despite the potential usefulness of the results, there was no doubt a strong bias against the Castro government which precluded any meaningful assessment of public opinion on the island. After all, emigres represented the disillusioned and disenfranchised. To what extent their attitudes and behavior reflected those of other Cubans was anyone's guess.

Despite the obstacles to traditional data gathering techniques, there are ways to gauge public opinion in Cuba which would represent improvements over previous attempts. In the 1980s, researchers at MIT used a technique developed in the U.S. Census Bureau for adjusting sample data to reflect known characteristics of a population. The technique, called Mostellerization, was used to determine the size of the listening audience for Radio Liberty. It seemed to yield good results for sample survey data, especially when the sample sizes for subgroups did not reflect the same balance as in the population. A somewhat similar technique, described below, was used in gathering information about Cuba.

SAMPLE SELECTION

This study used an availability sample of Cuban emigres who had been in the United States three months or less. With the cooperation of the Immigration and Naturalization Service, interviewers contacted recent arrivals at the Miami International airport and asked if they would be willing to participate in a study of public opinion in Cuba. A letter of introduction from the University of Florida described the project and how the data would be used. The letter also emphasized that participation was voluntary. Interviewers also located respondents through relief agencies such as Catholic Charities. Interviews lasted approximately an hour and were conducted in the homes of host families or at a place convenient to the respondent. From December, 1998 to April, 1999, 1023 interviews were obtained.

Initial plans called for an additional availability sample of Cubans on the island who would be contacted

through telephone interviews from the homes of friends or family in the Miami area. This second sample would provide a means of determining whether responses of Cubans on the island—admittedly those with contacts with friends and relatives in the United States—differed in the responses of Cuban emigres. However, a change in law in Cuba which made contact with foreigners subject to criminal prosecution precluded calls to Cubans in Cuba. Nevertheless, an attempt was made to tap the opinions of other Cubans. The questionnaire was worded in such a way as to ask for the opinion of other Cubans and also of Cuban who supported the regime. In addition, as will be described below, the data were weighted according to known characteristics of the Cuban population.

QUESTIONNAIRE DESIGN

The survey questionnaire was initially designed to cover seven major topical areas: (1) availability of goods and supplies; (2) outlook for the future; (3) attitude toward reforms; (4) perceived level of repression; (5) media use; (6) civic participation; and (7) opinions on international issues.

Availability of Goods and Supplies

Despite some improvement in the Cuban economy in the past few years, almost everything is in short supply and therefore rationed, or unavailable. Questions in this section dealt with the availability of food, clothing, medicine and medical services, housing, and utilities, and whether these items were more readily available or less readily available than a year ago.

Outlook for the Future

While one would expect emigres to see little hope for the future of Cuba under the present government, the question was whether Cubans in Cuba and special sub-groups of the Cuban population expressed similar attitudes. Questions dealt with the respondent's perception of the future for himself or herself, for his or her family, and for various others such as supporters of the regime.

Attitude Toward Reform

Questions in this section asked for reaction to reforms in Cuba since 1991: legalization of the dollar

(and its consequences), joint economic enterprises, free farmers' markets, and self employed small entrepreneurs called *cuentalpropistas*.

Perceived Level of Repression

Respondents were asked whether they believed the Cuban government was allowing greater freedom of expression, whether they were aware of the activities of opposition groups, whether those groups appeared to have more "breathing space," whether neighbor committees for the defense of the revolution were as vigilant in monitoring and reporting criticism of the government as in the past, and whether they personally knew of anyone who had been harassed—interrogated, detained, picketed, or jailed—by the government for voicing criticism.

Media Use

Because of a shortage of paper, ink, and electricity, Cuban media have been sharply curtailed in the 1990's. Questions in this section tapped Cubans' use of domestic media, and use of foreign media, particularly broadcasts from other countries. Cubans were asked whether they listened to Radio Marti and whether they watched TV Marti, the U.S. government services which are jammed by the Cuban government.

Civic Participation

One index of a civil society is the degree to which its citizens participate in organizations which have some say-so in how their society functions. Cubans were asked to list the organizations they belonged to, whether they were active participants in the organizations, and whether their participation had increased or decreased in the past few years.

Opinions on International Issues

In this section respondents were asked their opinion of other countries, including the United States. Also, they were asked whether they are aware of specific legislation directed at Cuba, such as the Cuban Democracy Act and the Cuban Liberty and Democratic Solidarity Act, and their opinion of these foreign policy initiatives. Finally, respondents were asked how they viewed the Cuban American community in the United States.

The initial questionnaire was then tested with a group of ten interviewees. On the basis of the results of this test and other considerations, the breakdown of topical areas covered was modified and the drafting of the questions further refined. These modifications are reflected in the discussion of the results of the survey in the accompanying paper by Betancourt and Grenier (also in this volume).

DESCRIPTION OF THE SAMPLE

The sample consisted of 1023 emigres who had arrived in the United States within the past three months. Of this number, 41 percent were female and 59 percent male; 87 percent were white and 13 percent non-white. Most respondents lived outside Havana province (64 percent). The most common age group was 15 to 50 years of age (93 percent). The rest (7 percent) were 51 years of age or older. Almost half the sample (43 percent) reported they had obtained a visa through the lottery system, while a small percentage indicated they had been political prisoners (3 percent) or dissidents (1 percent). A slight majority (51 percent) entered the United States through a third country or came as *balseros*. More than half the sample said they were Catholic (58 percent), while slightly more than a quarter (28 percent) expressed no religious denomination.

Respondents varied considerably in educational background: 19 percent had a secondary education or less; 40 percent had pre-university education; 22 percent had technical school education; and 19 percent had a university or post-graduate education. Half the respondents reported that during their last year in Cuba they were employed, while 25 percent said they were unemployed. A smaller percentage said they were self employed (15 percent), students (5 percent), or retired (1 percent). The most frequently listed occupation was technician (21 percent), followed by professional (17 percent), housewife (16 percent), health care (12 percent), and military (11 percent). In terms of family income, less than a quarter of the sample reported making 500 or more pesos a month. Most respondents (52 percent) reported family incomes of 100-400 pesos a month.

STATISTICAL TREATMENT OF DATA

The statistical analysis of the data from the survey was essentially of two types. The first and most straightforward was simply a presentation of the observed frequencies for each answer to each question, accounting for the fact that some questions allowed multiple answers. This analysis also summarized the response to each question at each level of four demographic variables, race (white and non-white), location (Havana and not-Havana), age (15-49, 50 and older), and gender.

Since good estimates of population counts for the important demographic variables of race, location, age, and gender were known from other sources, and since the sample proportions attained in the survey data were different from the population proportions produced by these estimates, the sample proportions for each question were adjusted to reflect the fixed marginal counts suggested by the population estimates. The adjusted data should be less biased than the original counts when used to estimate corresponding population quantities. The method of adjusting sample frequencies to reflect fixed marginal totals is a standard statistical procedure as discussed by Deming (1943), Little and Wu (1991), and Mosteller (1968). A simple version of the type of adjustment used is seen most easily by an example.

In the table below, assume a survey question has three possible multiple choice responses, of which each respondent selects only one. The responses are then categorized by racial group. In the table, n_{11} denotes the frequency of response option one among the whites, with similar definitions for the other entries in the table. The sum n_1 denotes the total number of responses from whites.

White	Non-white
n_{11}	n_{21}
n_{12}	n_{22}
n_{13}	n_{23}
Total = n_1	Total = n_2

If n is the sample size of the survey and p_1 is the known proportion of whites in the population, then the expected frequency for the white cell is $m_1 = n(p_1)$. The adjustment on the counts that forces the

marginal total to equal the expected total is of the form:

$$m_{11} = n_{11}(m_1/n_1)$$

This type of adjustment is made to the observed counts for each response.

A similar method of adjusting observed counts was made for multivariate adjustment across three demographic variables: race, location, and age, simultaneously. It turns out that the marginal distributions of these adjusted counts are quite similar to the univariate adjustments. (For those familiar with log-linear models, the multivariate adjustment is equivalent to fitting a log-linear model to pseudo-data with

the correct fixed marginals while using the observed counts as an offset.)

Since the data did not come from a probability sample selected according to a specific design, sampling errors cannot be estimated accurately. However, since there is some randomness in the people interviewed, one could use the standard variance for percentages calculated from binomial counts to approximate the standard error of any one sample percentage. For a sample size of around 1000, these margins of error are around 3 percent. For the adjusted data, there is some evidence that the margins of error might be slightly smaller than those for unadjusted data.

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