Latent Support for Sub-National Military Groups in Pakistan

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Abstract

Current world events have focused attention on the Islamic world, and in particular, Pakistan. Sub-national military groups have become a prevalent part of this discussion and the extent that support for such groups exists in these societies. Prior research indicates that these groups have some, although limited, support from the population of various nations. However, this research has been unable to identify the complete extent of support for these groups and thus the possible population these groups can recruit from or rely on for popular support, including in some elections. The present research begins to fill this gap. Using a unique data source, public opinion in Pakistan was analyzed to assess the level of support for these sub-national groups. As these groups' ideologies are religious in tenor, opinions that are consistent with these religious positions as well as support for the actions of these groups are examined using data from the Gallup World Poll. The Gallup World Poll contains a number of questions indicating the potential support for these groups and the positions they take. Beyond examining the distributions of these individual questions, support is conceptualized as a latent property, measured by a subset of these responses. Support is related to religious intolerance, religious fundamentalism, and approval of sub-national military actions, including past actions such as those on Sept. 11, 2001. Latent supporters are estimated to be a small, yet substantively important, proportion of these populations. This indicates that although the majority of people in these countries do not support these groups, there remains a sizable resource these groups can rely and draw upon.

Keywords: Pakistan, latent class analysis,

1. Background

Current world events have focused attention on the Islamic world, and in particular, Pakistan. Extremist groups have become a prevalent part of this discussion, including the extent that support for such groups exists in these societies. Prior academic research indicates that these groups have some, although limited, support from the population of various nations. Studies in Algeria and Jordan show that although the majorities in each country do not express support for extremist leaders and behaviors, a sizable portion does (Tessler and Robbins 2007). Further, this research shows that religious and cultural orientation explains less of these attitudes than do political beliefs (e.g. attitudes towards U.S. foreign policy). Data from 14 Muslim-majority countries (including Pakistan) show that on average, Muslims do not feel violence in the name of Islam is justified (Fair and Shepherd 2006). Some groups do show higher levels of support, with younger people showing higher level of support, with some indication that those with lower socioeconomic status also display higher support. Recent research focusing on Pakistan has found similar findings (Kalenthaler et al. 2010). Overall, most Pakistanis say that terrorism is not justified; again, this is with the caveat that a sizable minority, around 15%, say that it is either "Often" or "Somewhat" justified. Other measures, such as support for attacks by Al-Qaeda show similar results.

However, the above research has been unable to identify the complete extent of support for these groups and thus the possible population these groups can recruit from or rely on for popular support, including in some elections. Specifically, only one indicator of support was used for any analysis, and then the goal of multivariate analyses was to estimate group difference, rather than estimate population size. This is of not only academic but of practical importance. The present research examines methods to estimate this at risk population and presents initial population size estimates.

Data were collected as part of the Gallup World Poll. Gallup surveyed individuals in over 150 countries, with regional and country specific questions being asked within countries as well as core questions common to all surveyed nations. Many countries have had several surveys conducted over the course of several years. Pakistan had five separate data collections over a two-year period between 2007 and 2009.[1] Countries that had eighty percent or greater telephone penetration had data collected via standard random digit dial (RDD) techniques, while those countries below that threshold employed area probability sampling. As such, Pakistani data was collected by personal interview surveys based on a national area probability sample. In these area probability samples, the first stage of sampling was of primary sampling units (PSU) of cities and towns stratified based on population. Random route procedures were used to select households, and then within households, a respondent 15 years old or older was selected. Face to face surveys lasted approximately one hour. A complete description of the methodology and sampling can be found elsewhere (Gallup 2010).

Given the religious makeup of Pakistan, in addition to the core questions, a number of questions asked to Muslim-majority questions were also asked. A number of these questions asked about attitudes toward the West, particularly the United States, as well as questions regarding recent events. Of particular interest are questions that may be indicative of support for extremist groups. These groups, such as the Taliban and al-Qaeda, are considered to be highly prevalent and represented in Pakistan, but the extent of support for these groups is unknown. The level of support for such groups is of practical importance: greater levels of support indicates increased instability in the region and less support and greater difficulty for the United States and the West in achieving its goals, such as the war in neighboring Afghanistan or the capture of al-Qaeda members. Further, identification of the characteristics of supporters is also necessary. If supporters come from one certain region, efforts to correct this can be focused on this region. Supporters with certain demographic characteristics also are important in developing strategies and the full extent of the problem.

However, it is not possible to directly ask in surveys if a respondent supports groups such as the Taliban or al-Qaeda. Few, if any, would openly admit to a stranger that they supported a group that the government and external military forces were seeking out. Rather, support for such groups would need to be measured by proxy questions asking about support for beliefs and actions of these groups, without mentioning these groups directly. Several such questions were identified in the Gallup World Poll data asked in Muslim-majority nations, including Pakistan. Of these, four were selected that were considered to be most theoretically relevant to identifying supporters of these groups. These questions were related to support for terrorist attacks, both specific and generalized, and attitudes towards other religious groups.

Specifically, the following questions were identified as being indicators of support for these extremist groups:

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[1] During June 2007, June 2008, October 2008, December 2008, and May 2009.

"Many people have discussed different approaches to improving American policies. How much hope do you place in the role of each of the following in improving American policies toward your country: Please indicate your response using a 5 point scale where a 1 signifies no hope at all and a 5 signifies a great deal of hope. Terrorist attacks on American citizens" (indicator *A*)

"There are many acts some people may do in life. I will read out to you a number of these acts. I would like you to indicate to which extent it can be morally justified. Events of Sept 11th in USA, that is, the attack on the World Trade Center and the Pentagon." (indicator *B*)

"There are many acts some people may do in life. I will read out to you a number of these acts. I would like you to indicate to which extent it can be morally justified. Other attacks in which civilians are the target." (indicator *C*)

"Finally, we'd like to know how you feel about people of different religious or spiritual groups. Please say whether your overall view of each group is very positive, somewhat positive, neutral, somewhat negative, or very negative. How about Shiite Muslims" (indicator *D*)

The first three of these questions regards support for terrorist attacks, either specific events (e.g. September 11th attacks) or more general (e.g. attacks where civilians are the target). The first two questions also tap into anti-American sentiment, asking about attacks specifically on Americans. The final question was selected was an indictor of religious intolerance, which is another hallmark of these extremist groups. Although the Gallup World Poll asks about attitudes towards a number of religious groups, the question on attitudes regarding Shiite Muslims was selected for several reasons. First, and most importantly, these extremist groups are intolerant of all non-Sunni Muslims, and consider Shiite Muslims to be heretics. This is not the prevalent view among other Sunni Muslims. Second, although extremist groups also are intolerant of other religious groups, questions about such groups may not discriminate well because of general unpopularity among the populace. For example, Jews are often given less favorable ratings by the majority of the population, due in part to displeasure with Israel.

All respondents to these surveys were self-identified Sunni Muslims, or just as a "Muslim" with no sect affiliation. Further, since Islamic extremist groups are limited in participation to only men, and the desire was to identify potential supporters of these groups, only data from men are analyzed. Given the closeness in time of the different waves of the surveys, time is not considered to be a factor, and all data are collapsed over all collection points. Not every survey iteration asked the same set of questions, so not each of the above questions are asked at all five points, which accounts for differing sample sizes for each. Figures 1 – 4 present the results of these four questions.
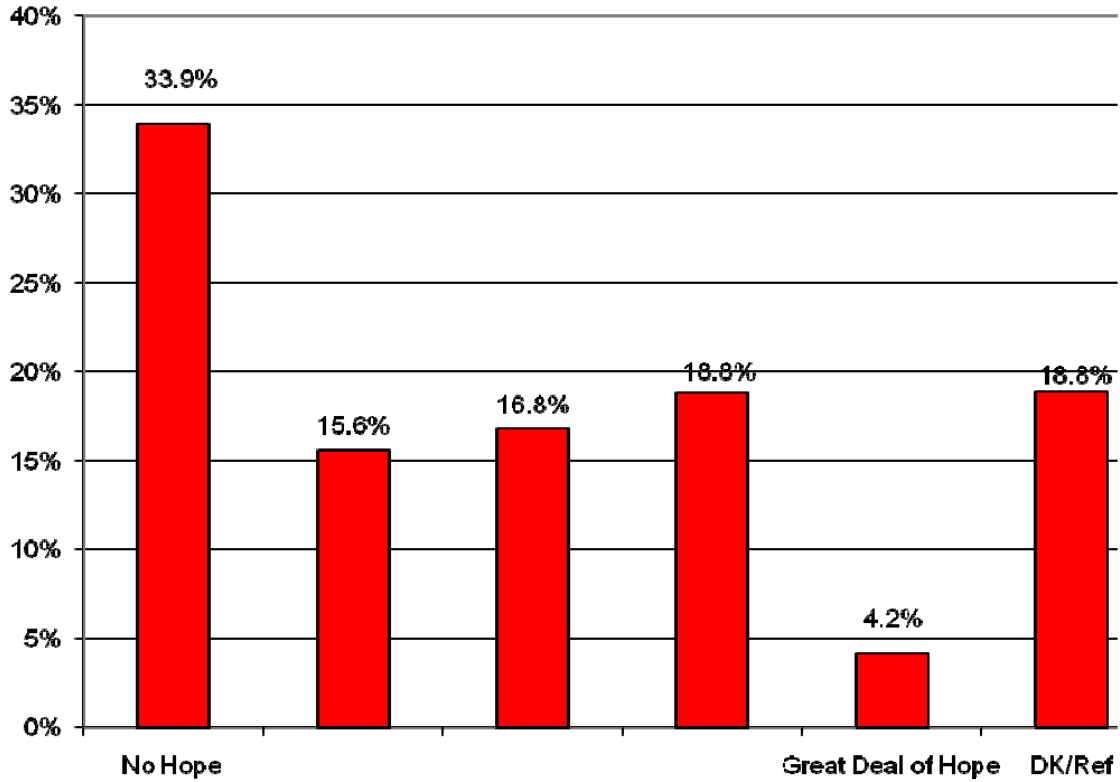
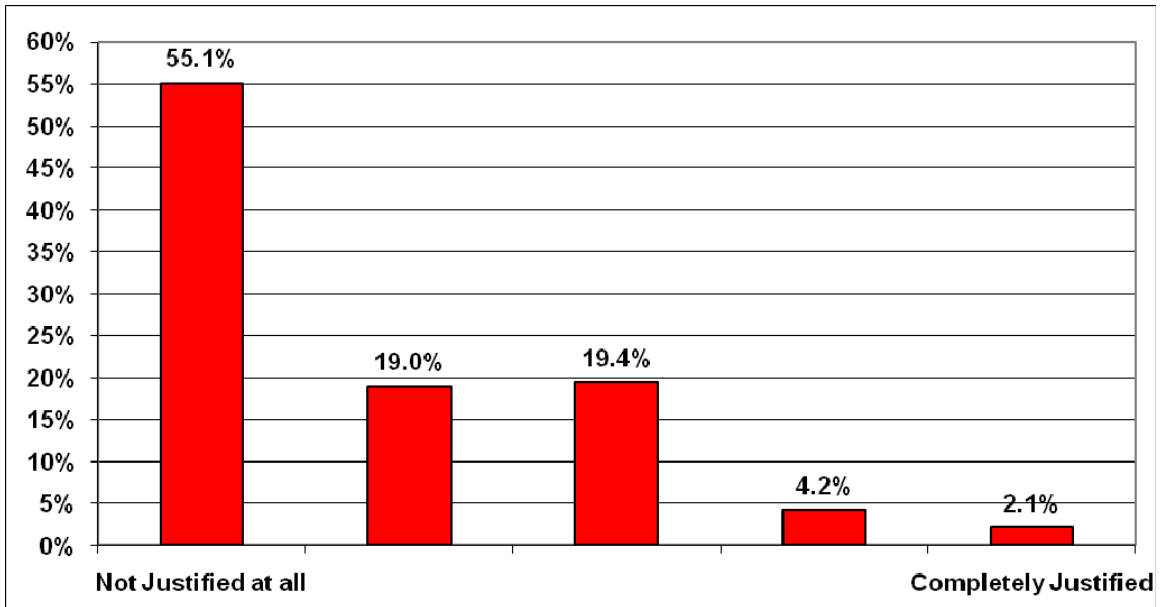**Figure 1: Hope From Terrorist Attacks on the U.S.**

Figure 2: Was September 11th Justified?
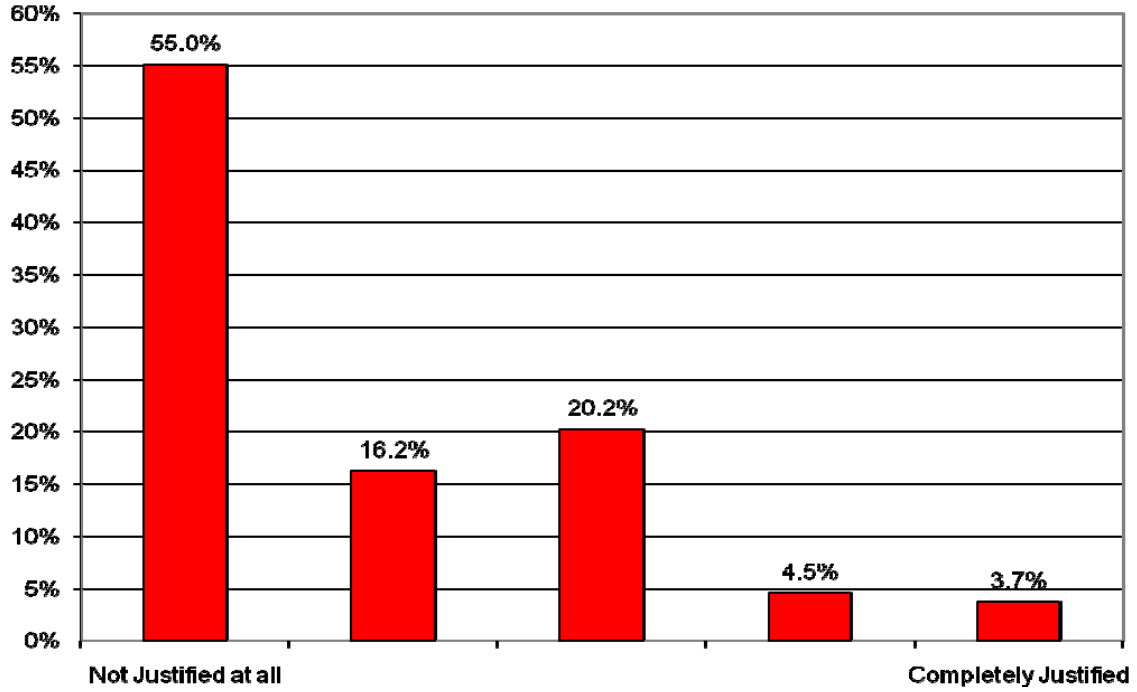
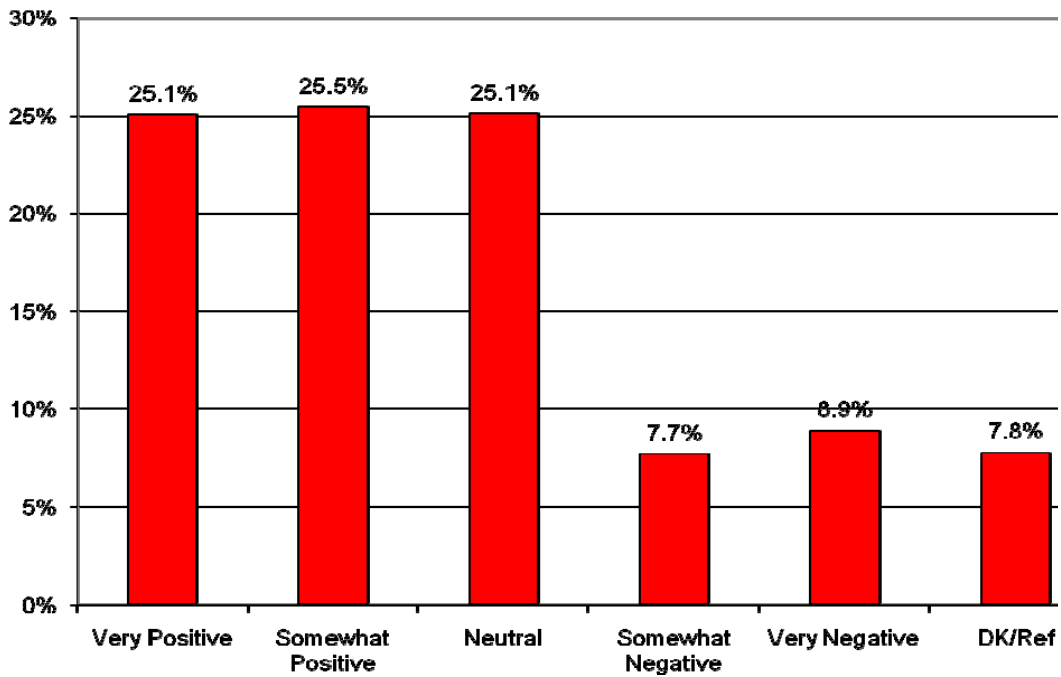**Figure 3: Are Attacks on Civilians Justified?**

Figure 4: Personal View of Shiite Muslims

As can be seen, the majority of the respondents have views that are contrary to those of extremist groups. A significant number of men, however, do have beliefs that are more consistent with these extremist groups. Between 2% and 9% of male respondents gave the most extreme response on these scales that are consistent with the views of groups such as the Taliban and al-Qaeda. In addition, those giving responses directionally supportive of extremist groups is much higher. Extremist leaning responses, including those at the upper end of these scales beyond the mid-point, make up between 6% and 22% of all answers. While most responses clearly are not supportive of the terrorist groups, a sizable proportion does appear to be supportive to these groups' agendas.

A problem arises as to which measure, if any, of the above best captures support for these extremist groups. There is significant variation in estimated support if any and only one of these questions were used as the best indicator of support. Further, none of these are directly asking whether one supports such groups or not. A person may also support a group based on closeness of beliefs on the majority of important issues, but may differ slightly ideologically on another. For example, in the current context, a man may be completely opposed to the United States, support attacks on civilians as a means to an end, but not feel strongly that Shiite Muslims are heretical. Still, this person should be classified as a supporter of extremist groups.

This indicates a potential problem of only using one measure to capture support for these groups, particularly when there is not a question directly asking about support. Additionally, survey questions are frequently measured with error (Lessler and Kalsbeek 1992). One way to overcome the problems of error and the limitations of any one measure is to use multiple indicators to estimate the construct of interest. There are several ways that this may be done; with categorical data such as that presented above, the most promising may be latent class analysis (LCA) (McCutcheon 1987). LCA allows for an estimation of the level of error in each measure as well as estimating the true population size for the construct of interest, in this case, supporters of extremist groups. In addition, since LCA can be parameterized as a log-linear model, the LCA is an extension of the logistical regression model, allowing estimation of class probabilities for several external variables.

2. Latent Class Analysis

With four indicators, *A, B, C, D* with categories *i, j, k, l*, the joint probability of a given response pattern is π_{ijkl}^{ABCD}; the responses are not independent. LCA estimates the underlying latent variable(s) which creates the dependence of responses, such that when conditioned on the latent variable, the responses are conditionally independent. With one latent variable, *X*, with *t* classes, the joint probability satisfies

$$\pi_{ijklt}^{ABCDX} = \pi_t^X \, \pi_{it}^{A|X} \, \pi_{jt}^{B|X} \, \pi_{kt}^{C|X} \, \pi_{lt}^{D|X} \ \text{with} \ \pi_{ijkl}^{ABCD} = \sum_t \pi_{ijklt}^{ABCDX} \qquad (1)$$

which indicates the local independence of the responses. The latent class variable, X_t, is estimated by the expectation-maximization (EM) algorithm (McCutcheon 1987). From equation (1), π_t^X is the estimate of the latent class size for category *t*; it is the estimated true population size for the latent category of interest. The remaining parameters are the conditional response probabilities, e.g. $\pi_{it}^{A|X}$ is the probability of giving response *i* to indicator *A,* conditioned on being in class *t* of the latent variable *X*. These parameters can be seen as measuring the amount of error in measurement indicators as well. Using the above Pakistani data as an example, the conditional

probability of giving a response that indicates opposition to extremist groups, while being classified in the latent class of supporters is the estimated "error" in that indicator. Generally, the available degrees o freedom is ($ijkl$ – 1), with the number of degrees of freedom used in estimation is $[(t\text{-}1)+t((i\text{-}1)+(j\text{-}1)+(k\text{-}1)+(l\text{-}1))]$. Model fit is assessed using a chi-square test, with the null hypothesis being the estimated model fits the observed data; thus, model fit is indicated by failure to reject the null hypothesis.

The probability model in equation (1) can be rewritten as a log-linear model as well. With the frequency of the joint observed response pattern, f_{ijkl} corresponding to π_{ijkl}^{ABCD}, and $\hat{f}_{ijklt}$, the estimated frequency of response pattern i, j, k, l, t , corresponding to $\pi_{ijklt}^{ABCD|X}$, the log-linear model is {AX,BX,CX,DX},

$$(2)\ \log(\hat{f}_{ijklt}) = \lambda + \lambda_i^A + \lambda_j^B + \lambda_k^C + \lambda_l^D + \lambda_t^X + \lambda_{it}^{AX} + \lambda_{jt}^{BX} + \lambda_{kt}^{CX} + \lambda_{lt}^{DX}$$

again indicating the local independence of the observed indicators and the conditional relationship between indictors and the latent variable. The parameters in either model can be constrained in a number of ways. Common examples of constraints are perfect indicator (no error) (e.g. $\pi_{11}^{A|X} = 1$), equal indicators (e.g. $\pi_{it}^{A|X} = \pi_{jt}^{B|X}$), and equal error (e.g. $\pi_{12}^{B|X} = \pi_{21}^{B|X}$) .

External grouping (i.e. non-indicator) variables can be included in the in the latent class model in a straightforward manner. These additional categorical variables can influence only differences in the estimated latent class sizes, (i.e. π_t^X) or can also influence the conditional response probabilities (e.g. $\pi_{it}^{A|X}$). Assuming the conditional response probabilities does not differ across the categories of the grouping variable, the probability parameterization is

$$(3)\ \pi_{ijklts}^{ABCDXG} = \pi_{ts}^{X|G} \pi_{it}^{A|X} \pi_{jt}^{B|X} \pi_{kt}^{C|X} \pi_{lt}^{D|X} \pi_s^G$$

where *G* is the external grouping variable with *s* categories. In equation (3), the size of the latent classes differs across the *s* groups, but the conditional response probabilities are equivalent across all groups. However, it is possible to allow the grouping to affect the conditional response probabilities for any of the indicators if needed. As above, the parameterization in (3) can be rewritten as a log-linear model {AX,BX,CX,DX,XG} in the following way

$$(4)\ \log(\hat{f}_{ijklts}) = \lambda + \lambda_i^A + \lambda_j^B + \lambda_k^C + \lambda_l^D + \lambda_t^X + \lambda_s^G + \lambda_{it}^{AX} + \lambda_{jt}^{BX} + \lambda_{kt}^{CX} + \lambda_{lt}^{DX} + \lambda_{ts}^{XG}$$

The log-linear parameterization has the added advantage in the multi-group setting in that it can allow for more nuanced relationships than the probability model. If the conditional response probabilities on the indicators differ across groups, in the probability model only allows for the estimation of the three way interaction between the indicator, latent variable, and grouping variable. However, in the log-linear model, three way interactions can be further restrained, allowing for only a two-way interactions between indicator and latent variable, indicator and group, and latent variable and group, e.g. {AX,BX,CX,DX,DG,DX} as opposed to including the DGX three-way interaction.

In addition, log-linear models are generalization of the logistic model (c.f., Agresti 2002). As such, after latent class model have been parameterized as log-linear models, these can be seen as generalizations of the logistic model with the outcome being predicted latent class size or

conditional response probability. Based on the generalizations of these models to one another, from equation (4), the logistic representation of estimating the probability of being in latent class t =1 is

$$(5) \quad \log(\frac{\hat{f}_{ijkl1s}}{\hat{f}_{ijklts}}) = \frac{\exp(\lambda_1^X + \lambda_{i1}^{AX} + \lambda_{j1}^{BX} + \lambda_{k1}^{CX} + \lambda_{l1}^{DX} + \lambda_{1s}^{XG})}{\sum_t \exp(\lambda_t^X + \lambda_{it}^{AX} + \lambda_{jt}^{BX} + \lambda_{kt}^{CX} + \lambda_{lt}^{DX} + \lambda_{ts}^{XG})}.$$

Similar equations can be used to calculate probabilities different response patterns and groupings.

3.   Extremist Group Support as Latent Classes

Using the above reasoning, support for extremist groups among Pakistanis was estimated using LCA. Since the model estimates data based on a cross-tabulation of all the indicators, only surveys could be used where all four questions analyzed above were asked concurrently. This only occurred on two of the five fielding periods, June and December 2008. This led a much smaller sample size. In addition, since each of the four indicators had five category responses, this leads to a $5^4 = 625$ cell table to be analyzed. Such a large table frequently leads to problems of sparseness, with numerous zero or small number of observation cells. In order to counter these problems, as well as be consistent with analysis of data using similar scales, all indicators were collapsed to three point scales, with the mid-point of the original scale remaining the mid-point in the new scale, with the valences of the original scales collapsed into consistent categories (i.e. 1 and 2 on the original scale collapsed in the new scales, as was 4 and 5). Further, "don't know" responses were recoded into the neutral category of responses.[2] All indicators are coded with the midpoint (=2) indicating neutral/ambivalent, with 1 coded as positions more oppositional to extremist groups, and 3 coded as more supportive of views of extremist groups. This leads to 627 observations in a $3^4 = 81$ cell table.

The latent class model was fit using exploratory techniques, first identifying the number of latent classes that led to best model fit and then adding possible restrictions. The model selected had four latent classes. Several restrictions were added to improve model fit. The indictor for "hope from terrorist attacks on the U.S." was fixed to have no error coming from response category 3 in the latent class most oppositional to extremism (X_t=1). Those classified in this latent class were estimated to give the response $A_1 = 3$ with zero probability. For this same indicator, those in latent class 2 had a zero probability of giving response 1. The indicator "justification for attacks on September 11" was constrained to have equal response probabilities for the first category in both class 1 and 2. Response probabilities for the third category of the "justification for attacks on civilians" indicator were constrained to zero for latent classes 2 and 3. In addition, the indicator for "attitudes towards Shia" was constrained to be an equal indicator for classes 2 and 3. Finally, consistent with expectation, several of the response categories most oppositional to extremist groups could be constrained to probability zero in the latent class representing extremist group supporters. Specifically, giving a response of 1 to "justification for attacks on September 11" or "justification for attacks on civilians" could be constrained to probability 0 for this latent class (X_t=4). These restrictions are:

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[2] Tests for analyzing data by dropping "don't know" responses show no change the substantive outcome of the models, and are thus included to ensure greater power.

$$\pi_{13}^{A|X} = 0,$$
$$\pi_{11}^{B|X} = \pi_{14}^{B|X} = 0,$$
$$\pi_{23}^{C|X} = \pi_{33}^{C|X} = \pi_{14}^{C|X} = 0, \quad and$$
$$\pi_{12}^{D|X} = \pi_{13}^{D|X}$$

This model is considered the base model. The results of this analysis are included in Table 1. As can be seen from this model, the largest estimated proportion of the population is that of those oppositional to extremist groups, with the smallest proportion being strong supporters of extremism. Those in the oppositional class consistently have high probability of responses contrary to the positions supported by extremists. Conversely, those in the supportive class consistently have high probability of responses in-line with the positions of extremist groups. The middle two classes are in between those completely oppositional or supportive of extremist groups. The first of the two middle classes shows overall highly oppositional views toward extremist groups, except of showing some belief that attacks on the US provides hope for improving American policies. The second middle latent class consistently shows response probabilities more neutral, with a slightly higher probability generally of oppositional responses. These two middle classes are estimate to make up slightly more than 40% of the population. These two classes and the oppositional class share similar responses to the question about attitudes toward Shiite Muslims. Consistent with expectation, only those supportive of extremist groups have high probabilities of negative views of Shiites.

Table 1: Latent Class Estimates for Support of Extremist Groups

Measure	*Response*	Oppositional	t = 2	t = 3	Supportive
Hope from Terrorist Attacks on US	Little Hope	0.9853	0.0000	0.3786	0.2428
	Neither	0.0147	0.4361	0.4796	0.1396
	Some Hope	0.0000	0.5639	0.1418	0.6176
Was Sept. 11 Justified?	Little Justification	0.8892	0.8892	0.5046	0.0000
	Neither	0.0510	0.1108	0.4382	0.3865
	Some Justification	0.0598	0.0000	0.0572	0.6135
Attacks on Civilians Justified?	Little Justification	0.9286	0.9832	0.1145	0.0000
	Neither	0.0421	0.0168	0.8855	0.1947
	Some Justification	0.0293	0.0000	0.0000	0.8053
Personal View on Shiite Muslims	Positive	0.5593	0.5634	0.5634	0.0904
	Neither	0.2830	0.2031	0.2031	0.4044
	Negative	0.1577	0.2336	0.2336	0.5052
Estimated Class Size		**0.5314**	**0.2660**	**0.1626**	**0.0401**
LR Chi-square =53.263, df =54 p>0.25, n = 627					

Although those supportive of extremist groups make up the smallest proportion of the population, this number can still be seen as substantial. Four percent of an entire population can

equate to several million people, which can be problematic. This number also begins to give some perspective to the potential problem. Although this is not an exact estimate, given potential limitations to the measures, LCA, and the survey method, there are reasons to expect that if anything, this number may be underestimated. Most directly, those most aligned with extremist groups are also likely to be the most reticent to respond to a survey request. Thus, the actual militants and strongest supporters are not likely to be reflected in this sample – it is only people still willing to take a survey. More likely, this 4% is an estimate of those at risk of becoming militants.

While intriguing, additional analyses can further shed light on the scope of the problem, with potential to guiding American and Western policy in Pakistan. Specifically, the ability to extend the LCA to include external variables allows for the calculation of class sizes for particular groups in Pakistani society. Based on current understandings, several groups were examined more in-depth by including external variables into the base model. Specifically, the Northwest Frontier Province (NWFP) has been identified as a region in Pakistan as potentially more problematic and home of more extremist groups than other regions. Additionally, age and education are possible important correlates in support for extremist groups.

To test the effects of these variables, each were test separately in the base model, using the same indicators and restrictions as above. In all additional models, the conditional response probabilities are the same across all groups, do not significantly differ for any group from those in the base model, and are omitted from further tables and discussion. Total estimated class size differs slightly due to an overall change in the data table, but do not change in a substantively important manner. Data was coded first as those respondents either in the NWFP or some other province. Respondents from the NWFP made up 0.2137 of the sample. Importantly, the deviations from this in the makeup of the four latent classes occurred mainly in the middle two categories, rather than in either the supportive or oppositional classes, as seen in Table 2. Rather than the expected pattern of more extremism in the NWFP, it appears these men are more neutral than those in other provinces. This may be in part due to the most extreme Pakistanis being the least likely to respond to the survey, which could explain this finding. This, however, can not be verified in any direct manner.

Table 2: Latent Class Size Estimates by Province

	Oppositional	t = 2	t = 3	Supportive
NWFP	0.1593	0.2513	0.3438	0.1718
Other Provinces	0.8407	0.7487	0.6562	0.8282
Total	0.5305	0.2711	0.1570	0.0415

Sample Proportions: NWFP = 0.2137, Other Provinces = 0.7863
LR Chi-square =156.8791, df =131 p>0.05, n = 627

To further examine the effect of region on extremist support, the class size within age and education groups can be simultaneously estimated using the log-linear (logistic) form of the LCA. The probability of a particular latent class given age and education simultaneous effect can be estimated from equation (5), i.e. $P(X = t \mid region = r)$. Class size for the NWFP and other regions are given in Table 4. As in Table 3, it is clear that those in the NWFP, compared to those in other regions, fall along the middle categories, being neither overly supportive nor oppositional

of extremist groups. This suggests that the common belief that the extremism is disproportionately represented in the NWFP may be incorrect. However, as noted above, it may be a failure of the survey method to capture those with the most extreme views and who may predominately live in the NWFP. Only less extreme respondents would be captured.

Table 3: Latent Class Size by Age and Education

	Oppositional	t = 2	t = 3	Supportive
NWFP	0.3953	0.3188	0.2525	0.0333
Other regions	0.5672	0.2581	0.1310	0.0437

Based on these findings, additional explanation of extremism was sought. It part due to the minimal impacts of region, as well as to reduce the difficulty of sparseness in the data table, additional models did not include the region variable. The next set of variables examined were those of age and education. As the expectation is that extremist activity will be limited by age, with younger people more likely to able to participate in such activities, age was dichotomized as those younger than 40 and those who were older. Slightly more than 57% of male respondents used in the LCA are younger than 40. Education was coded by the Gallup World Poll into three categories: completed elementary education or less (8 years), completed secondary school (9-15 years), or completed 4 years beyond high school or more. About 8% or Pakistani men fell into this last category, while nearly 60% had 8 years of education or less. Thus, data were again dichotomized with respondents either being coded as having either low (8 years or less) or high (9 plus years) of education. Separate models incorporating age and education into the base model found that both led to significant deviations across groups. As such, both education and age were included simultaneously. Estimated latent class makeup from this model is included in Table 5.

Table 4: Latent Class Proportions by Age and Education

	Oppositional	t = 2	t = 3	Supportive
Age<40	0.5230	0.5881	0.6472	0.8099
Age≥40	0.4770	0.4119	0.3528	0.1901
Low Education	0.5554	0.5650	0.7768	0.8057
High Education	0.4446	0.4350	0.2232	0.1943
Total	0.5239	0.2923	0.1312	0.0472

Sample Proportions: Age<40 = 0.5719, Age≥40 = 0.4281
　　　　　　　Low Education = 0.5990 High Education = 0.4010

LR Chi-square =256.8475, df =289 p>0.25, n = 627

Compared to the actual makeup of the population, the proportions of those supportive of extremist groups are disproportionately made up of those less than 40 years old and with lower education. There is also a linear change for both variables, with increasingly greater proportions of younger and less educated as the classes move from oppositional to support for extremism. The opposite linear trend is found among older and high education men. The most striking divergence is among those who are supportive of extremism. Of those supportive of extremism, nearly 81% are younger than 40 years old, with only 19% of supporters 40 and older. Similarly, about 81% of extremist supporters have low education, with the remainder having high education.

The conditional probabilities of being in class t, given a combination of age and education characteristics, i.e. $P(X = t \mid age = a, education = e)$, are presented in Table 6. As expected, being younger and less educated dramatically increases the support for extremism and decreases the opposition of extremism. Conversely, the opposition to extremism is highest among the older and better educated, while the probability these men are supporters is quite low.

Table 5: Latent Class Size by Age and Education

	Oppositional	t = 2	t = 3	Supportive
Age<40, Low Educ	0.4402	0.2790	0.1913	0.0895
Age<40, High Educ	0.5495	0.3330	0.0847	0.0328
Age>40, Low Educ	0.5581	0.2713	0.1420	0.0286
Age>40, High Educ	0.6369	0.2961	0.0575	0.0096

Again, most strikingly is the divergence among oppositional and supportive classes. About 44% of those younger than 40 with eight years of education or less are completely oppositional to extremist groups, compared to 64% of those 40 and older with higher education. Those younger than 40 with high education and those older than 40 with low education are similar in the percentage oppositional to extremism (55%) and are between the other two groupings. Perhaps more importantly is the large increase in extremism support among those younger and less education. Nearly 9% of respondents who are younger than 40 and have less than eight years of education are estimated to be extremist supporters. These numbers drop off significantly in other age and education groupings, with less than 1% of those 40 and older with high education being supportive of extremist groups. Similarly, in the class next most supportive of extremism (t=3), again, a being younger and less educated increases the odds compared to other groups.

4.   Conclusions

These findings suggest continued problems with extremism in Pakistan. First, given that younger men are more likely to act along with these extremist groups, the fact these draw greater support among the populace increases the chances that action will be carried out. Second, if support has been formed during recent events, and these findings are a snapshot of a static process, then support is not likely to wane any time soon due to generational shift. If older people were supportive of extremist groups, then as they died and were replaced, then support would naturally decrease. Third, and potentially most problematic, is that the Pakistani population is largely younger than 40 and less educated. Population growth and a poor educational system make the majority of men being in both of these categories. If 9% of those with low education

and younger than 40 are supportive of extremist groups such as the Taliban and al-Qaeda, than this 9% comes from the majority of the population. This could mean many more millions of supporters than originally expected.

These findings can help not only future research but also help guide pragmatic policy decisions in Pakistan. Further, this research has provided a framework in which to estimate support for extremist groups. The Gallup World Poll has data using many of the same indicators across many countries of interest, such as Afghanistan, Iraq, Iran, and Syria. There are, however, some limitations with the current research. First, the latent classes are not necessarily perfect indicators of support for extremism. Still, the facts that the indicators used to estimate the latent classes "load" in a consistent manner, and that findings about the effect of age and education are consistent with expectation lends support to the efficacy of the model. Further, given the pattern of the survey collection, data could be used for the LCA from only two waves. This necessarily limited the number of sample cases. This contributed, along with generally small portions of the population endorsing extreme beliefs, in sparseness in the data table. To in part overcome this, response categories had to be collapsed. Even with these potential limitations, however, the findings appear robust and of practical significance.

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