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**AN ANALYSIS OF POLITICAL VIOLENCE  
IN THE DEVELOPING COUNTRIES**

by

**Kai-chi Hsu**

**A dissertation**

**submitted in partial fulfillment**

**of the requirements for the degree of**

**Doctor of Arts in the Department of Political Science**

**Idaho State University**

**July 2000**

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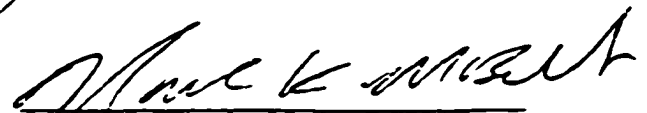
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To the Graduate Faculty:

The members of the committee appointed to examine the dissertation of Kai-chi Hsu find it satisfactory and recommend that it be accepted.

  
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**An Analysis of Political Violence  
in the Developing Countries  
Dissertation Abstract – Idaho State University (2000)**

The goal of the research is to determine which of the existing theories of the causes of non-state political violence in developing nations is best supported by a cross-national time-series analysis of quantitative data regarding purported social, economic and political causes of violence. Among other variables this study examined the role played by regime repression in causing political violence and by individual decision to join political violence activities. Due to the increasing salience of ethnic and religious nationalist-separatist issues during the post-Cold War era, this study also examined the role of ethnic conflict in promoting political violence.

Correlation and multivariate regression analysis were used to determine which existing theories best explain political violence. Inspection of the correlation matrix reveals the inter-relationships of all variables while multivariate regression analysis demonstrates the strength of association of each variable with political violence. Statistical findings and theories reveal that ethnicity, modernization, and relative deprivation are the most salient factors related to political violence. On regime repression, higher repressive regimes experience more political violence than do lower repressive regimes. This finding directly challenges the rational choice theory hypothesis that higher levels of political violence occur in a semi-repressive regime

rather than in either a severe or else a very low repressive regime. In the last section of the research, a short case study showed that colonial effects and political factors also contributed to political violence in Sri Lanka in addition to ethnicity, relative deprivation, and modernization factors.



## Chapter I Introduction

A major goal pursued by most developing nations is to achieve a high level of economic growth. However, not many developing countries have experienced high economic growth in the last forty years and only a few of them have attained even modest economic progress. Political instability has often been cited as the explanation for why these developing nations had such limited economic success. As we know, economic progress cannot be sustained if the social order is not stable. In other words, political stability is the first condition for successful economic progress.

There are several possible causes of political instability: war, natural disasters, ethnic conflict, and economic inequality. Among these economic inequality has often been held to be the most probable cause political instability. Aristotle considered inequality to be the "universal and chief cause" of revolution. Tocqueville stated that almost every revolution aimed to consolidate or to destroy inequality (Tocqueville, 1961). Are these classical hypotheses true?

In addition to economic inequality, other possible causes of political instability have been examined by scholars, such as past experience of political instability, the unequal development of society, political discrimination, individual psychological frustration, government performance and legitimacy, foreign economic penetration, the impact of foreign nations as well as demonstration effects (diffusion theory), and

ethnic conflict. Among above mentioned possible causes of political violence, no one is completely agreed by scholars. As a matter of fact, the scholars findings are inconsistent, inconclusive or even contradictory. Therefore, political violence research is still worth exploring as a topic.

Although for the past thirty years, scholars have been very interested in discovering the causes of political violence in the developing countries their research agenda is far from being exhausted. First, new data are becoming available that researchers could use to test existing theories. For example, after the World Handbook of Political and Social Indicators. (Taylor & Jodice, 1983) was published in 1983, more data related to political violence became available. Therefore, during the late 1980s to 1999, the numbers of articles devoted to political violence expanded in the professional literature. Second, to date there is still no consensus among researchers with regard to what causes political violence.

Much of this research has sought to analyze political violence mainly through quantitative methods, with qualitative approaches playing only a supporting role. Insofar as we try to regard the social sciences as true “sciences” we have also sought to rely on what may be regarded as scientific methods. Out of the several different approaches used in the social sciences, such as the historical case study approach, the deductive logical approach, and qualitative analysis, the quantitative statistical approach is regarded as the most “scientific” approach. With the development of

computer science, statistical analyses have become much easier than before. We can have input a large volume of cases and variables into a computer program and have the data processed and the results available in a short time. By using a comparative cross-national analysis of time-series data on political violence and purported causes we can employ statistical methods to analyze political violence and related social incidents, and to determine which of the existing theoretical approaches best explains the causes of political violence.

## Chapter II Review of the Literature: Theories Explaining Political Violence

### (1) Persistence Model

This theory is simple: current political violence reflects the past experience of political violence. In a simple sentence: violence breeds violence. Lichbach and Gurr (1981) developed and tested this model by using two variables, man-days of participation and numbers of political deaths. They found the persistence model to be significant for rebellious activities than for peaceful protest activities. The shorter the time lag, the stronger was the relationship. In other words over longer periods, the conflict persistence becomes weaker.

This theory demonstrates that earlier political violence has a statistically significant association with later violence. However, statistical correlation of persistence model has one problem— autocorrelation. Autocorrelation is a situation in which a variable is most strongly correlated with itself. The best example of autocorrelation is population growth. The factor which most strongly determines population growth in any year is the population growth in preceding years. The other example is weather forecasting. The best indicator of tomorrow's weather is today's weather. The persistence model demonstrates high statistical correlation but it tells us very little about the original causes of the political violence.

In addition to the autocorrelation problem, the persistence model is very easily explained by using a state's tradition of violence and cultural factors. The culture-of-violence hypothesis is also stressed by Gurr (1970, p.168). In this aspect, using cultural theory can override the persistence model.

## (2) Relative Deprivation Theory

The theory is employed by scholars extensively. Robert Gurr in his Why Men Rebel. (1970) suggests that the primary variable driving violent behavior is relative deprivation. Relative deprivation is defined by Gurr as:

A perceived discrepancy between men's value expectations and their value capabilities, i.e., a discrepancy between the goods and conditions of life they believe are their due, and the goods and conditions they think they can in fact get and keep. (P.319)

Relative deprivation theory is defined as the perceived gap between people's expectations and actual satisfaction, in other words, the difference between what people believe that they should get and what they actually do get. Both value expectations and value capabilities depend on individual perceptions, not necessarily upon reality. Davies' (1962) J-curve revolution theory and Gurr's research (1968) are very typical of relative deprivation theory.

The primary focus of relative deprivation theory has been on economic conditions. With the exception of Kelley and Klein's research (1994), almost all

studies related to political conflicts regard economic inequality as an independent variable which causes social instability. This view of social conflict can be traced to Marxist theory on class struggle. In its most simple form, a society is seen as being divided into two groups: the upper class and the lower class. The people in the lower class are the “have-nots” who seek economic equality by attacking the unfair distribution of resources by the dominant upper class. The upper class are the “haves” who try to defend the status quo which is advantageous to them. The contentions between classes for a bigger share of resources are characterized as the center field of society under Marxist theory. Thus political conflicts occur which are analyzed as being instances of class struggle. Scholars who consider economic inequality as a potential cause of political conflict are influenced more or less by the Marxist theory of class struggle.

Income inequality is thought to be an important indicator causing political violence, but the empirical findings have been inconsistent. Two investigations have reported no association between income inequality and political violence: Hardy (1979) finds that economic growth negatively correlates with the frequency of armed attacks and deaths from domestic group violence but positively with the frequency of political strikes<sup>1</sup>. He also finds that income inequality is not associated with political

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<sup>1</sup> In Hardy’s research (N=24), economic growth is represented by magnitude of energy consumption. According to Hardy, magnitude of energy consumption is .95 correlated with GNP. Income inequality is represented by Gini index of sectoral

violence. Weede (1981) uses income inequality (percentage income share by top 20 percent of population) to predict political violence (armed attack, deaths of political violence) and finds that income inequality is not correlated with political violence<sup>2</sup>. But Sigelman and Simpson's research (1977), in a similar multiple regression analysis, finds that economic inequality is moderately positively related to political violence<sup>3</sup>. Again, Muller's more recent research (1985) has reported positive relationships between income inequality and political violence<sup>4</sup>. Park in 1986, using the Gini index of income inequality to predict political violence (deaths of political violence, armed attack, internal war), finds that income inequality is positively related

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inequality and Gini index of pretax personal-income inequality. Political violence is represented by riots, armed attacks, deaths from political violence, and political strikes. Data of Gini index of pretax personal-income inequality is from Paukert (1973), and the other data all are from Taylor and Hudson (1972).

<sup>2</sup> Weede also finds that high average income (GNP per capita) is negatively correlated with political violence. In other words, a state with higher income would experience lower political violence. Weede uses two independent variable: 1) average income – GNP per capita in 1965 (data from World Handbook, 1972), 2) income inequality – percentage income share by top 20 percent of population (data from Paukert, 1973). Political violence is represented by armed attack and deaths of political violence, (both data are 1963-1967, from World Handbook, 1972).

<sup>3</sup> Sigelman and Simpson use income inequality (Gini index, data from Paukert, 1973) to represent economic inequality, using anti-system events count (including assassinations, armed attacks, and deaths of political violence, data from Hibbs, 1973) to represent political violence.

<sup>4</sup> Muller uses percentage income share by top 20% of population to represent income inequality (data from Paukert, 1973), using deaths of political violence to represent dependent variable: political violence (data from Taylor & Jodice, 1983).

to political violence<sup>5</sup>. Muller and Seligson's research in 1987, including more variables, finds that income inequality has more effect on political violence than land inequality. But in a causal model that takes into account the repressiveness of the regime, intensity of separatism, and level of economic development, income inequality is not significant to political violence<sup>6</sup>. Russett's older research in 1964, using correlation analysis, found that land inequality is positively related to political instability<sup>7</sup>. Midlarsky (1982) finds that inequality of land ownership was related to

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<sup>5</sup> Park's study uses longer time span (ten years' income inequality) to predict political violence. His contribution is he provides empirical evidence that income inequality is not a precipitating condition but an underlying necessary condition for political violence. His data, Gini index of income inequality, are from Size Distribution of Income: A Compilation of Data. By Jain S., 1979, Washington DC: World Bank Press. Data of deaths of political violence are from Taylor and Hudson, 1972. Data of armed attack and internal war are from Hibbs, 1973).

<sup>6</sup> Muller and Seligson consider more factors in the research. There are seven independent variables: 1) income inequality: percentage income share by top 20 percent of population, land inequality: Gini index, landless: agricultural households without land as a proportion of the total labor force, 2) regime repressiveness: political rights and civil rights index, 3) negative sanctions: number of negative sanctions, 4) level of economic development: energy consumption per capita in 1970, 5) intensity of separatism, and one dependent variable: natural log of deaths of political violence. All data are from Taylor & Jodice, 1983, except "landless" (data from Prosterman & Riedinger, 1982, N=64).

<sup>7</sup> Russett uses: 1) percentage of landholders collectively occupying one-half of all agricultural land, 2) Gini index of land concentration, 3) percentage of farmers renting all their lands, to represent land inequality. He uses personnel stability (numbers of chief executives during 1945-1961), internal group violence: deaths per million 1950-1962 (civil war, revolution, riot), internal war (numbers of violent incidents 1946-1961 (plots, guerrilla warfare), and stability of democracy: uninterrupted years of continuing democracy since World War I, to represent instability. Russett's article (and data) are reprinted in Why Men Revolt and Why. 1996, by James Chow and Davies.



high levels of political instability<sup>8</sup>.

Overall, according to the relative deprivation theory, there should be a strong positive relationship between income inequality and violent political conflict, but the empirical findings by scholars, using different data sets and different time frames, have been conflicting or inconsistent.

Another approach to prove relative deprivation theory is through the gap of expectation and satisfaction. In Feierabend and Feierabend's research on political instability (1966, p.250), systemic frustration is defined:

$$\frac{\text{social want satisfaction}}{\text{social want formation}} = \text{systemic frustration}$$

Again they developed their hypothesis according to the above formula:

The higher (lower) the social want formation in any given society and the lower (higher) the social want satisfaction, the greater (the less) the systemic frustration and the greater (the less) the impulse to political stability. (p.256)

The discrepancy between social wants and social satisfactions are further developed into three relationships (p.257):

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<sup>8</sup> Midlarsky's research, combining quantitative and qualitative methods, also indicates that population growth is the most important factor which incurs income inequality. He uses Gini index of land inequality (data from World Handbook, 1972) to represent economic inequality, revolution as political instability.

want satisfaction low  
----- = high frustration,  
want formation high

and also,

want satisfaction high  
----- = low frustration,  
want formation high

and also,

want satisfaction low  
----- = low frustration.  
want formation low

For measuring want satisfaction, they chose the following indicators: GNP, caloric intake per capita, and physicians, telephones, newspapers, and radios per unit of population. For measuring want formation, they choose indicators such as literacy rate and urbanization rate. It is clear that Feierabend's research considers exposure to modernity as an important source of systemic frustration. Their research result is the higher the level of systemic frustration, the greater the political instability. Similar to Feierabend's model, Lerner (1963, p.330) treats indicators such as the urbanization rate, literacy rate, and mass media to represent people's higher demands which may lead to a revolution of rising frustration. Both Feierabend and Lerner consider relative deprivation to be related to the processes of modernization and social mobilization. The systemic frustration approach to explore political violence can be

included into the next theory, structural imbalance theory, discussed in the following.

### (3) Structural Imbalance Theory

This theory states that society is a system which is normally in a state of equilibrium. Its environment, culture, and social structures are coordinated in such a way that they produce the greatest benefit for people in the system. If the parts of the system are no longer functionally coordinated, then the system is in disequilibrium.

Political instability represents an abnormal force that disturbs the system's equilibrium. Tilly (1978) characterizes Chalmer Johnson's theory in Revolutionary Change. (1966) as a sequence of rapid change, social disequilibrium, individual disorientation, and protest. Structural imbalances are said to exist when one aspect of development is high while the others are low. For example, in developing societies urbanization and educational levels could be greater than the level of economic development. The basic idea is that the imbalances lead to social stress, individual dissatisfaction, and then political instability. In contrast, developed societies have balanced institutions and are stable.

The structural imbalance view is very similar to Samuel P. Huntington's theory. Huntington's thesis in Political Order in Changing Societies, (1968) viewed society as a network of subsystems. With fast modernization processes, some

institutions would lag behind social and economic change. In other words, when some parts of the social system change more rapidly than others, the social structure loses balance<sup>9</sup>. For example, Robert Kaplan (1994) vividly describes the political, economic, and social chaos existing in certain Western African states. He states that social break down in these countries, especially the Ivory Coast, has resulted from a combination of demographic changes and economic decay. Rapid social mobilization would then produce dislocations, disorientation, and rising expectations. These strains would generate increased political demands, which would lead to political instability if the government lacked the capacity to handle these increased demands.

In empirical research trying to prove the social structural imbalance theory, Hibbs, in his Mass Political Violence. (1973) found that levels of education and urbanization had little relationship with political instability. Gurr (1974) used durability of the political system, defined in terms of how long the system had existed and how well the system responded to the need for changes, to predict political stability and found no support for Huntington's theory that institutionalization promotes political stability.

In challenging the social structural imbalance research, Sigelman (1979)

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<sup>9</sup> According to Huntington, modernization expands the political participation of many formerly unincorporated groups. But the democratic institutions needed to facilitate the peaceful participation of these groups do not develop as quickly. Newly activated groups may turn to less institutionalized and more violent forms of political expression such as riots, strikes, and coups.

argued that the structural imbalance theory was deceptively simple and imprecise. For example, all concepts of structural imbalance are very difficult to measure. How does one measure equilibrium and disequilibrium? What are the indicators of institutionalization? In Gurr's 1968 publication, he used the party system to measure institutionalization. Two indices represent party system: number of political parties and stability score of each political party. In another publication by Ahn (1984), institutionalization is measured by five variables: 1) legislative representation: the number of legislators who are elected, 2) number of political parties, 3) party seats in legislative institutions, 4) the duration of national institutions, 5) the duration of constitutional stability. Ahn's and Gurr's measurements of institutionalization are "indirect" and both of them emphasize "institutional stability" rather than "degree of institutionalization." In their mind, institutionalization and political stability have very close meaning. Hudson in Conditions of Political Violence and Instability. (1984) measures institutionalization using variables such as government expenditures, government employment, and military manpower. It seems that Hudson is measuring the "size" of government instead of "degree" of institutionalization. Hudson's measurement of institutionalization implies that the bigger the government is, the higher level of institutionalization the government is. Hibbs (1973, p.99) uses other kinds of indicators to measure the degree of institutionalization of government: 1) direct tax as a percentage of general government revenue, 2) age of present national

institutions, 3) union membership as a percentage of the nonagricultural work force, 4) general government expenditures as a percentage of GDP, 5) age of the largest political party, 6) age of the largest political party divided by the number of parties. Hibbs' measurements are better but still he is not directly measuring the true institutionalization of government. The foregoing examples demonstrate that Sigelman's criticism on the measurement of social disequilibrium is correct.

#### (4) Legitimacy Theory

Legitimacy could be used as an independent variable to predict political instability. However, in most cases, legitimacy of a political system is measured indirectly. For example, Lipset (1960, chapter 3) measures "political stability" as one aspect of legitimacy. Douglas Bwy (1968) measures "the degree of democracy in a society" as legitimacy. The more sophisticated method to measure legitimacy is by Gurr and McClelland (1971, p.30-48). They measure several variables to represent legitimacy: 1) illegitimacy manifestation, such as governmental repressive measures, symbolic oppositional activities; 2) illegitimacy sentiments: measuring scope and persistence of illegitimacy sentiments; 3) distinguishing between three objects of illegitimacy sentiments: political community, regime, incumbents. All of the above various measurements of the indicators of legitimacy are indirect. In general, the evidence resulting from these indirect measurements of legitimacy is that legitimacy

tends to be negatively associated with political violence.

Sometimes legitimacy and political performance are related. A system performing well would be expected to have high legitimacy and would persist. Jacobson (1973) tests political instability by using legitimacy and performance as independent variables. His model explains political instability well in developed states, but not very well in traditional and modernizing states. He uses three indicators to measure legitimacy: a rating of government stability; the number of deaths due to domestic group violence; and the rate of executive turnover. His attempts to measure legitimacy demonstrate that the concept of legitimacy is very difficult to measure. Most of the time indirect measurements of legitimacy are used, as Jacobson did in his study. One obvious way to measure legitimacy would be to conduct an opinion survey of the country's population on their attitude towards their government. But very little reliable public opinion data related to people's attitude toward their government are available for most of the developing countries. Therefore, operationalization of the concept "legitimacy" is difficult in empirical research.

#### (5) The Resource Mobilization Theory

The resource mobilization theory states that violence will occur only when the political context is suitable. This theory argues that discontent alone is not enough

to trigger violent behavior. More important is the ability of discontented people to control resources and to develop strong organizations. Muller, based on this theory, proposed that political violence was most likely to occur in a semi-repressive authoritarian regime. In his research conducted in 1985, the inverted U-shaped effect of regime repressiveness appeared to have stronger impact on the variation in rates of deadly political violence. According to rational choice theory, when sanctions are very low political violence would not be necessary. When sanctions are very high, organizing group protests would be difficult, costs would be high, and therefore political violence would be low. In 1990, Muller and Weede again found that rates of domestic violence were higher at intermediate levels of regime sanctions than at either low or high levels. Other scholars also exploring the relationships between repression and political violence reported many conflicting findings. Snyder and Tilly (1972) found that repression would deter political violence, but Robinson and London (1991), using degree of repressiveness to predict political violence, found that repression could stimulate political violence. An article by Mason (1989) argued that it is the threat of indiscriminate violent sanctions, not the promise of reward or the appeal of ideology, that induces the general population to participate in organized revolutionary activity. Lichbach (1987) found that increasing repression of non-violent political activities would reduce the nonviolent activities of an opposition group but would increase its violent activities. Because the nature of relationships



between repressiveness and political violence is not clear, this paper will research the relationship between repressiveness and the individual decision to participate in violent behavior.

A key aspect of the resource mobilization theory is the role played by a strong organized group. In Tilly's (1978) version of the theory, the basic concept is that of the group. The central focus is the interaction of groups in the political process. McCarthy and Zald (1977) offer a theory of social movements and their definition of resource mobilization theory is similar to Tilly's—interest group/political process theory. They regard social movements as general interests, social movement organizations as formal organizations, and the social movement industry as the entire social movement sector of society. An economic model is used for analyzing competition among social movement organizations. Movement organizers can be regarded as entrepreneurs. They have to demonstrate leadership ability to compete for membership, just like interest group leaders. This group-oriented research on political instability emphasizes the internal political interaction of group members and leadership ability. It turns out that this group-oriented research de-emphasizes the influences of societal and structural conditions over political instability.

#### (6). World System Theory

The world system theory (Wallerstein, 1974) states that countries in core areas

dominate the world economic system while non-core (periphery and semi-periphery) countries are subordinate. Scholars employing this theory to explain political violence assume that the internal dynamics of nations cannot be accurately assessed without taking into account external forces, namely the larger world economy. Timberlake and Williams (1987) found that having a non-core position in the world system has independent positive effects on income inequality and that inequality has independent positive effects on deaths due to political violence<sup>10</sup>. However, research conducted by T. Y. Wang (1993) finds that most dependency variables and world system position do not have robust effects on political violence<sup>11</sup>. Instead, foreign investment, he finds, actually has a negative effect on political violence in developing countries. Similarly Kenneth Bollen (1983) found that world system position had an effect in hindering political and social development whereas Michael Gasiorowski

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<sup>10</sup> They use two independent variables: 1) country's position in world-system (core, semiperipheral, periphery), 2) income inequality: percentage income share by top 20 percent of population. The dependent variable is deaths due to political violence. Except for the data of a country's position in world-system coming from Bollen, 1983, the other data all are from Taylor and Jodice, 1983.

<sup>11</sup> Wang uses three indicators to represent foreign economic penetration: 1) foreign investment magnitude, 2) foreign assistance magnitude, 3) foreign assistance concentration—percentage of foreign loan coming from the five major lending countries (the United States, Japan, France, Germany, Britain). Deaths of political violence serves as dependent variable. Data of foreign assistance magnitude and foreign assistance concentration are from Geographic Distribution of Financial Flows to Developing Countries, by OECD, various edition, Paris, France. Data of foreign investment magnitude is from Balance of Payments Statistics, by IMF, various edition. Data of deaths of political violence is from ICPSR World Handbook of Political and Social indicators. III: 1948-1982. (Magnetic tape), Ann Arbor, Michigan: ICPSR.

(1988), examining the same data and research, concluded that world system position had no significant explanatory role.

A more interesting and different research is found in the research into political conflict conducted by Rothgeb (1993). Rothgeb uses foreign investment (in manufacturing) as independent variable, both political conflict (political protest, political turmoil, internal war) and income inequality (percentage income share by top 20 percent of population) dependent variables, and divides world countries (sample N = 84) into three groups (Asian, African, and American states). He finds that for American nation-states, foreign investments are associated with greater inequality, which in turn is related to more internal war, and with more protest. For African states, foreign investments are negatively related to per capita growth, which is associated with more internal war, and with less protest. For Asian states, foreign investments have few effect on political violence<sup>12</sup>. Rothgeb's research brings regional variables into the analysis and demonstrates that cultural factors might play some roles in political violence.

#### (7) Diffusion Theory (Contagion Theory)

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<sup>12</sup> Data of foreign investment is from Stock of Private Direct Investment by DAC Countries in Developing Countries, by OECD, Paris, France, microfiche, no data. All of political conflict data are from Conflict and Peace Data Bank (COPDAB). Data of income inequality (percentage income share by poorest 20 percent of population) is from World Tables, by World Bank, 1980 edition.

The diffusion theory rests on the premise that a demonstration effect may account for political violence. For example, the American revolution in the 1770s set off a chain reaction; the French revolution occurred in 1789, a series of revolutions in central Europe also appeared, and Central and South America experienced revolutions in the early 1800s. In empirical research, Midlarsky, Crenshaw, and Yoshida (1980) investigating incidents of international terrorism in the period 1968-1974 found that the terrorist incidents of the earlier period 1968 to 1971 provided demonstration effects that helped account for terrorist incidents in the later period of 1972 to 1974. However, the diffusion theory is difficult to test through quantitative research. Part of the diffusion theory thesis is related to the geographic proximity of those states which initiate political violence to those states which are influenced by this violence. It is difficult to determine how physically close two states must be for the diffusion effect of political violence to occur. The time frame is also a problem, meaning how long does it take for the diffusion of political violence to occur passing from the states initiating the diffusion to the states that are being affected by this diffusion.

#### (8) Ethnic Conflict Theory

It is logical that the more salient a nation's ethnic divisions are, the more likely it would be for its internal conflict and political violence to be higher (Gurr 1970, and

Sigelman and Simpson 1977). In Conner's (1972, p.320-321) description, only 9.1 percent of world states is homogeneous from an ethnic viewpoint<sup>13</sup>. About 18.9 percent of world states contain an ethnic group accounting for more than 90 percent of the state's population. Another 18.9 percent of world states contains an ethnic groups accounting for 75 to 89 percent of state's population. In 23.5 percent of the world's states, the largest ethnic group represents 50-74 percent of the state's population. In 29.5 percent of the world's states, the largest ethnic group fails to account for half of the state's population. Even in 40.2 percent of the world's states, the population is divided into more than five significant groups. A state with multi-ethnic groups creates ethnic groups relations or majority-minority relations.

Geertz (1963) refers to religious, regional, ethnic, racial, linguistic, and other communal or custom-based ties as "primordial attachments." The primordial attachment conflicts are often as symbolic in nature and are perceived as (Zimmermann, 1983, p.141) "matters of principle, as non-negotiable, and as touching on the sense of identity of one's own group.... characteristics of conflicts with a zero-sum structure." When minority groups are deprived from economic well-being or political resources this may be easily regarded by them as systematic deprivation being imposed by members of the majority group. Minority group identity, therefore, is considered to facilitate political violence through the belief that "my people are

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<sup>13</sup> Connor's 1972 research includes 132 countries in the world.

repressed by other people.” Brown and Boswell (1997) argue that separatist intensity in a society should increase levels of political violence and that fractionalization should decrease levels of political violence. This research included a test of ethnic conflict theory to see if it could better explain political violence than other theories.

### Problems of Quantitative Research on Political Violence

A qualitative case study can be very useful when it covers a long period of time. In the social sciences, the single case study is used to discover a pattern of behavior. The conditions and the historical context of political violence may be considered in much greater depth in a case study. A case study could supply evidences to see if cross-national generalizations hold when considering more specific phenomena or considering cultural explanations<sup>14</sup>. However each case study and its explanation tend to be “selective,” reflecting the researchers’ ideological motives, attitudes, and beliefs. In addition, case study results are always case-specific. In contrast, scientific research seeks to discover a “generalization” to explain social phenomena. In this regard, quantitative cross-national research on political violence is better suited to discover a generalization. Therefore, this proposed study will adopt a quantitative cross-national method to illuminate the causes of political violence.

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<sup>14</sup> A comprehensive discussion of the merits and weaknesses of case study is in Eckstein, 1975.

**Quantitative cross-national research also has been criticized for the following:**

**(1) Quantitative data of political violence have been subject to a number of definitions, transformations and statistical techniques. Therefore, research results have been criticized as being valid “for this research and this method only,” and not valid for inferring any generalization. An example of this was the Almond and Verba (1963 ) study of the civic culture of five nation-states in which data collection required translation of the survey instrument into four languages, leading to criticisms that the data collected were not comparable.**

**(2) A single generalization might not explain all cases. In some degree, each case is unique, a generalization is not applicable to each of them.**

**(3) A very complex model comparing all nations at a single point in time can generate highly misleading and wrong conclusions.**

**(4) It is inappropriate to use long term independent variables (such as economic inequality and political discrimination) to predict a specific incident of political violence (such as the frequencies of protest within a short period of time).**

**(5) Quantitative research has only compared countries at a single point in time, not these countries across time.**

**(6) All nation-state cases are unique, and while we can find out some similarities between cases through cross-national research, this similarity might not be able to be generalized to explain other countries.**

(7) An overly complex statistical model can be easily being misused and mislead research results. Among other things, this is because as independent variables are multiplied the corresponding reduction in their degrees of freedom allows for a more spurious correlation.

The above criticisms of quantitative cross-national research on political violence often have proved to be justified. However, a careful research design can reduce such flaws to a minimum. For example, a more careful definition of political violence and more careful selection of cases should reduce spurious correlations. To avoid using long-term variables to predict single instances, an average of politically violent behavior over several years could be used rather than a total count for a single year. A full discussion of the research design is in the following section.



## Chapter III Research Methods

The literature review above revealed that scholarly research results have been conflicting or inconsistent on the causes of political violence. In addition, having several competing theories to explain the causes of political violence makes research in this field complicated. Therefore, this study will try to test relative deprivation theory, resource mobilization theory, world system theory, structural imbalance theory, and ethnic conflict theory in a single research design, comparing them to determine which one best explains the causes of political violence. In order to obtain better statistical results, this cross-national analysis will exclude some extreme cases, such as countries in civil war and countries having very small populations.

### A. Hypotheses:

- (1) The more the people feel they are deprived from economic well-being, the more likely they will be to organize political violence.
- (2) The less the government exercises repression, the more likely the people will be to organize political violence.
- (3) The greater the foreign economic penetration, the more likely the people will be to organize political violence.
- (4) The greater the ethnic diversity and the greater the sense of ethnic identity, the more likely the people will be to organize political violence.

- (5) The higher are the economic growth rate, the urbanization rate, and the literacy rate, the more likely it will be that the people will organize political violence.

**B. Independent Variables and Operational Definitions:**

**(1) Relative Deprivation: Income Inequality and Land Inequality.**

Income inequality is represented by three variables. The first two refer to the portion of national income received by the most highly paid 5, 10 and 20 percent of total households. The higher this income index is means the more income inequality the society is experiencing. The third one is the portion of national income received by the lowest 20 and 40 percent of total households. The higher this income index is means the more equal is the income distribution. Land inequality is represented by the Gini coefficient for each country. The larger this coefficient is, the fewer the large landowners who control large parts of the total area and thus the higher is the inequality in land distribution. The income inequality Indices are based on 1969-1974 data (see Taylor & Jodice Vol. I, p.134-136, 1983). while the land inequality index is based on 1970 data (see Taylor & Jodice Vol. I, p.140-141, 1983). The data of the income shared by the lowest 20 percent and highest 5 percent of household are from World Tables. Volume II: Social Data (1983).

**(2) Regime Repressiveness: Political Rights and Civil Rights Indexes.**

Political rights and civil rights indexes are coded annually by Raymond D.

Gastil and published by Freedom House. Countries are coded by Gastil with scores ranging from 1 (highest degree of political and civil liberty) to 7 (lowest degree of political and civil liberty). The index used here is the average score for the years 1973-1979 (see Taylor and Jodice Vol. I, p.58-65, 1983).

(3) **World System Position:** The amount of foreign trade as a percentage of GNP.

The Foreign Trade Index refers to the movement of goods into and out of the customs area of a country taken as a percentage of GNP, that is, exports and imports of goods are summed and divided by GNP. The higher the Trade Index means the more the country depends on foreign trade. It also means that foreign economic penetration is higher. The Foreign Trade Index here is based on 1975 data (see Taylor and Jodice Vol. I, p.226-228, 1983).

(4) **Ethnic Conflict Theory:** Ethnic Intensity and Ethnic Separatism indexes.

Ethnic Intensity is the relative size (percentage) that an ethnic group makes up of a country's population. The Ethnic Separatism Index is an ordinal data-base of four categories ("1" to-"4") with "1" representing the least intensity of separatist feelings and "4" representing the highest intensity of separatist feelings. These two ethnic indexes are based on 1975 data collected by Ted Robert Gurr and Erika Gurr (see Taylor and Jodice Vo. I, p.66-75, 1983).

(5) **Structural Imbalance Theory:** GNP per capita Growth Rate, Urbanization

**Rate, and Literacy Rate.**

Sigelman (1979) mentions that the concept “social disequilibrium” is very difficult to measure. Therefore, this paper turns to the other aspects of structural imbalance theory-the rate of change. Economic growth rate, urbanization rate, and literacy rate all represent the rate of change in a society. The higher the rate of change is, the more probable the society experiences social structural imbalance. Hence, variables related to the rate of change, such as economic growth rate, urbanization rate , and literacy rate, are good to test this theory.

The GNP per capita growth rate here is represented by average GNP per capita growth rate from 1968 to 1977 (see Taylor and Jodice Vo. I, p.245-247, 1983). The urbanization rate is represented by the percentage of population living in cities. A ‘city’ here is defined as having a population of more than 100,000. The time frame of urbanization data mostly is 1975 and 1976, some are 1973 and 1974 (see Taylor and Jodice Vo. I, p.222-203, 1983). Literacy is the ability to read and to write and the literacy rate is defined as the percentage of the population aged 15 years and older who can read and write. The time frame of literacy data is 1975, some are 1971 to 1974 (see Taylor and Jodice Vo. I, p.169-172, 1983).

#### **C. Dependent Variables and Operational Definitions:**

**Political Death Rate:** The number of deaths caused by political violence.

Probably the best definition of political violence is Gurr's:

Political violence refers to all collective attacks within a political community against the political regime, its actors—including competing political groups as well as incumbents—or its policies. (Gurr, 1970, p.3-4)

In order to avoid the spurious correlation found when a country with greater population has a higher number of political death. Political death rates in this research have been standardized by summed numbers from 1975 to 1977 divided by a country's total population. The research uses a population of one million as a base. For example, the political death rate statistic in the data means the actual deaths per million of population caused by political violence.

While riot and protest indexes were also considered as dependent variables, which are also available in the World Handbook of Political and Social Indicators, Volume 2. (Taylor & Jodice, p.16-60, 1983), problems of comparability of data ruled out their use. Riots and protests, each of which is recorded as a single instance, still vary among themselves in scope and strength which in turn account for differences in political violence. A riot or protest with only one hundred participants may be quite different from a riot or protest with ten thousand participants, but each is recorded as only 'one' incident. For this reason the political violence death rate was preferred as being a better dependent variable for this research. Table 3.1, on the following page, contains a summary of the dependent and independent variables used

Table 3.1. Summary of Independent and Dependent Variables and Their Operationalizations

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Independent Variables:

- 1) income inequality:  
percentage income shared by richest twenty percent of the population (1969-1974).
- 2) land inequality:  
Gini coefficient of land inequality indexes (1970).
- 3) political rights indexes:  
Raymond Gastil's seven-scale political rights indexes (average score of 1973-1979).
- 4) civil rights indexes:  
Raymond Gastil's seven-scale civil rights indexes (average score of 1973-1979).
- 5) foreign trade index:  
the amount of foreign trade as a percentage of GNP (1975).
- 6) ethnic separatism:  
the percentage of population involved in separatist movements in a country (1975).
- 7) ethnic intensity:  
a four-scale separatist feeling (1975).
- 8) economic growth:  
GNP per capita growth rate (average growth rate from 1968-1977)
- 9) urbanization rate:  
the percentage of population lives in city (more than 100,000 population, 1975-1976).
- 10) literacy rate:  
the percentage of population aged 15 years and older who can read and write (1975).

Dependent Variable:

political violence death rate:  
actual number of political violence deaths per million population (1975-1977)

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in this study.

#### D. Data Sources

All data in this research will be taken from Taylor and Jodice's World Handbook of Political and Social Indicators. (1983). This book compiled data of world countries from 1965 to 1977. Due to data unavailability or unreliability<sup>15</sup>, the communist countries were excluded from the research. Also some countries are excluded from the research because of their being in a state of total civil war or because they have too small a population (see note 16). Hibbs (1973, p.9-10) indicates that domestic conflict is multidimensional. Political turmoil, including riots, general strikes, antigovernment demonstrations, and the like are different from internal war which incur a very high death rate. Including countries which were involving with internal war might inflate the dependent variable-political death rate.

Another good data set for political violence is the Conflict and Peace Data Bank (COPDAB)<sup>16</sup>. COPDAB covers social and political data of 135 nation-states from January 1, 1948, through December 31, 1978 (while Taylor & Jodice's World

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<sup>15</sup> The strongest threat to the reliability and validity of cross-national data on political violence is the "limited coverage" of the real events. There are two general sources of error: 1) violent political conflicts are not reported due to censorship, 2) the reported data are incorrect (inflated or suppressed). However, most scholars use the World Handbook's data since it is the most complete.

<sup>16</sup> COPDAB is an extensive, computer-based longitudinal collection of daily international and domestic events. It's data set is based on over 70 sources. It covers 135 countries' social and political data. Readers can see the full description of COPDAB data set in Azar (1980).

Handbook data set covers from 1967 to 1977)<sup>17</sup>. Rothgeb (1991) compared political violence variables from COPDAB and Taylor and Jodice's World Handbook of Political and Social Indicators. (1983) in a check for data consistency, finding that while the two are somewhat different, they are similar enough that the use of one data set as opposed to the other will not produce odd results. Because of easier access to political violence data, most researchers, such as Boswell and Dixon (1990), London and Robinson (1989), Timberlake and Williams (1987), use data from the World Handbook. This research used the World Handbook data set too.

Some other data sources in the following are supplemental to the World Handbook:

1) Land inequality: The data of Gini index land concentration of the following countries is from Muller and Seligson (1987, p.446). Originally, the data came from the Food and Agriculture Organization (FAO) of the United Nations (1981). This data serves a supplement to the World Handbook: Colombia (1971), Dominican Rep. (1971), Guatemala (1964), Haiti (1971), Nicaragua (1963), Panama (1971), Peru (1972), Trinidad (1963), Egypt (1964), Iran (1960), Libya (1960), Saudi Arabia (1974), Syria (1971), Turkey (1963), Ghana (1970), Kenya (1974), Liberia (1971), Mali (1960), South Africa (1960), Tanzania (1972), Togo (1972), Indonesia (1973),

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<sup>17</sup> If including Taylor and Hudson's World Handbook of Political and Social Indicators. Second Edition. (1972), COPDAB covers data only one more year (1978) than World Handbook series data set. Their time frame is overlapped.



Malaysia (1960), Nepal(1972), Singapore (1973), Sri Lanka (1973), Taiwan (1960), and Thailand (1963).

(2) Income inequality: Percentage of income shared by the richest 20 percent of population. This data, from Muller and Seligson (1987, p.446)<sup>18</sup>, serves a supplement to the World Handbook. It covers countries bellow: Bolivia (1968), Nicaragua (1977), Trinidad (1975), Ghana (1968), Sierra Leone (1967-69), Sudan (1967-68), Nepal (1976-77).

(3) Urbanization rate: The following countries' data on urbanization rates are from the World Tables. (1991, World Bank) : Bhutan, Cape Verde, Congo, Equatorial Guinea, Gambia, Guinea-Bissau, Libya, Lesotho, Liberia, Oman, Rwanda, Trinidad, Botswana, Burundi, Comoros, Gabon. The others are from Taylor & Jodice's World Handbook. (1983).

It might be worth mentioning why we do not use 1980s or even 1990s data in this analysis. As a matter of fact, for the past twenty years, the developing countries have been reporting much more accurate social and economic national data than those of 1960s and 1970s. There would be not much problem in obtaining more updated, reliable social and economic data such as income inequality, urbanization rate, land inequality, economic growth rate, and GNP. However, up-to-date data about political

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<sup>18</sup>Muller and Seligson (1987) use many data sources, please see p.447 of their paper for reference.

conflicts are not available. The World Handbook series published three editions – 1964, 1972, 1983. All three editions carried various political data (political violence data is among them). Most scholars depend on the World Handbook data set to conduct their research. Unfortunately the fourth edition of the World Handbook has not appeared. That is why this research is forced to use only 1970s data.

Table 3.2 Below contains a summary of nations used in this study:

Table 3.2 Summary of Countries in the Research

<u>region</u>	<u>number</u>	<u>percentage</u>
Asian states	24	27.6
African states	40	46.0
American states	22	25.3
Pacific Ocean	1	1.1
total	87	100%

#### E. Research Tools

Empirical quantitative research tools will be used. The empirical time-series data to be used have been discussed in the preceding section. The statistical techniques to be employed include ordinary single least-squared correlation and multivariate regression analyses. These two analysis are popular and easy to be understood by readers even with a minimum statistical background. In the above

discussion of cross-national statistical analysis, a complex statistical method is very easily misused and may mislead research results. Therefore, other complex statistical models such as probic and logistic analysis are avoided. The Statistical Package for the Social Sciences (SPSS version 9.0 and 10.0) will be adopted to analyze the relationships between independent variables and dependent variable .

**Chapter IV**  
**Analysis of Quantitative Cross-National Research**  
**Research Results and Discussions**

**Spearman Rank Correlation**

The correlation analysis of this research used the Spearman rank correlation coefficient. The SPSS program uses the rank order of each data value for the Spearman rank correlation coefficient (SPSS, 1999, 178-179). Like the Pearson correlation coefficient, the values of the Spearman statistic range between -1 and +1. However, the assumption of normality is not required. In this research the data-set had some outlier values and a few important outliers might dramatically alter the statistical results. The Spearman rank correlation coefficient is not sensitive to asymmetrical distributions or to the presence of outliers. Therefore, it is better to use than the ordinary correlation analysis for the research of political violence<sup>19</sup>. Table 4.1 shows the Spearman Rank Correlation Matrix.

The correlation table shows what relationships exist between political violence and twelve variables. It tells us that the causes of political violence are complex and that no one or two variables can sufficiently explain political violence. Among all the variables, ethnic intensity is correlated with political death rates by 0.311. Income inequality is not significantly associated with political violence, but another economic

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<sup>19</sup> This research compares ordinary least square correlation and Spearman Rank Correlation and find they are not surprisingly different.

**Table 4.1 Correlation Table: All Variables Related to Political Violence**

	death per million	ethnic separatism	ethnic intensity	top 20% income shar	land in-equality	urbaniza-tion rate	literacy rate	trade as % of GDP	average eco growth	political rights
<b>ethnic separatism</b>										
<b>ethnic intensity</b>	** .311	*** .870								
<b>top 20% income share</b>										
<b>land inequality</b>	* .301	*** -.404	*** -.476	* .260						
<b>urbanization rate</b>	* .213	*** -.483	*** -.477		*** .410					
<b>literacy rate</b>	** .243	*** -.655	*** -.551		*** .408	*** .506				
<b>trade as % of GDP</b>	*** -.264					*** .361				
<b>average eco growth</b>	** -.210					* .228	** .257	* .201		
<b>political rights</b>		* .251	** .288		** -.280	** -.234	*** -.504		** -.268	
<b>civil rights</b>		** .319	*** .424		*** -.426		*** -.468			*** .806

total cases = 87, Spearman's correlation.

The table only covers statistics significant better than 0.10 level (2-tailed).

\* significant at the 0.10 level (2-tailed).

\*\* significant at the 0.05 level (2-tailed).

\*\*\* significant at the 0.01 level (2-tailed).

variable, land inequality, is significantly associated with a coefficient of 0.301. Among the modernization variables both the urbanization rate and literacy rate are positively and significantly correlated with political violence having coefficients of 0.213 and 0.243 respectively. Among the national economic variables both foreign trade and average economic growth were significantly and negatively correlated with political violence having coefficients of -0.264 and -0.201 respectively. Regime repression (i.e., deprivation of political rights and/or civil rights) was not found to be significantly correlated with political violence. A summary overview of the analysis of political violence analysis is given in the following (Table 4.2):

**Table 4.2 Variables Related to Political Violence according to Correlation Matrix**

<u>Variables</u>	<u>Relation</u>	<u>Remarks</u>
ethnic variables	positive	ethnic intensity only
economic variables	positive	land inequality only
modernization variables	positive	
national economic variables	negative	
regime regression	not significant	

The foregoing table outlines a very rudimentary analysis. This analysis of political violence will become more refined and accurate after we review related variables and examine the results of the multivariate regression analysis more minutely in the following.

## Multiple Linear Regression Analysis

Linear regression analysis requires that the dependent variable be normally distributed. Since the dependent variable, the death rate from political violence, is not distributed normally, a log transformation is used to solve this problem. Figures 4.1-4.4 demonstrate the results of this transformation. However, some cases contains zero ('0') political violence. A value of '0' cannot be transformed into a logarithmic value. Hence, the value 0.01 is added to all cases containing zero ('0') political violence<sup>20</sup>. The multivariate regression results are shown in Table 5. Without controlling any variable, the multivariate regression table shows the possible compositions and their ability to explain the percentage of variation in the values of the dependent variable expressed as R-squared adjusted ( $R^2$ ).

Formula A of Table 4.3 included all variables to predict political violence but it explains only 0.31 percent (F value=0.81, significance=0.623). It is not surprising many parameters obtains very poor results. Formula K is the best formulation. Ethnic intensity explains about 24 percent of the increase in political violence (0.236) while average economic growth explained about 45 percent of the decline in political violence (-0.449). Both variables together explain 24.1 percent of the variation in political violence with an F value of 8.298 (significance 0.001) meaning that both

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<sup>20</sup> After testing, adding 0.01 to political violence does not change the whole structure of multivariate regression analysis.

Figure 4.1 The Q-Q Plot of Dependent Variable: Death per Million

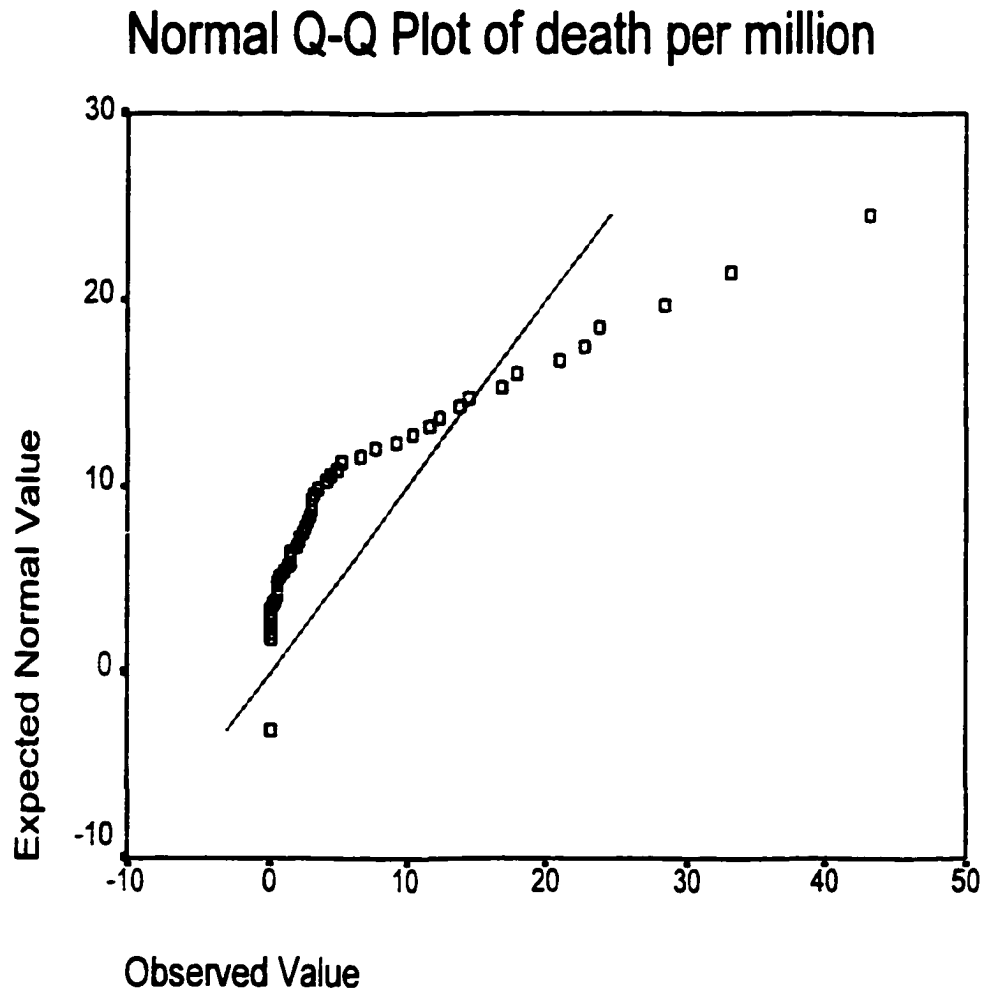




Figure 4.2 The Q-Q Plot of Dependent Variable Deviation from Normal Curve: Death per Million

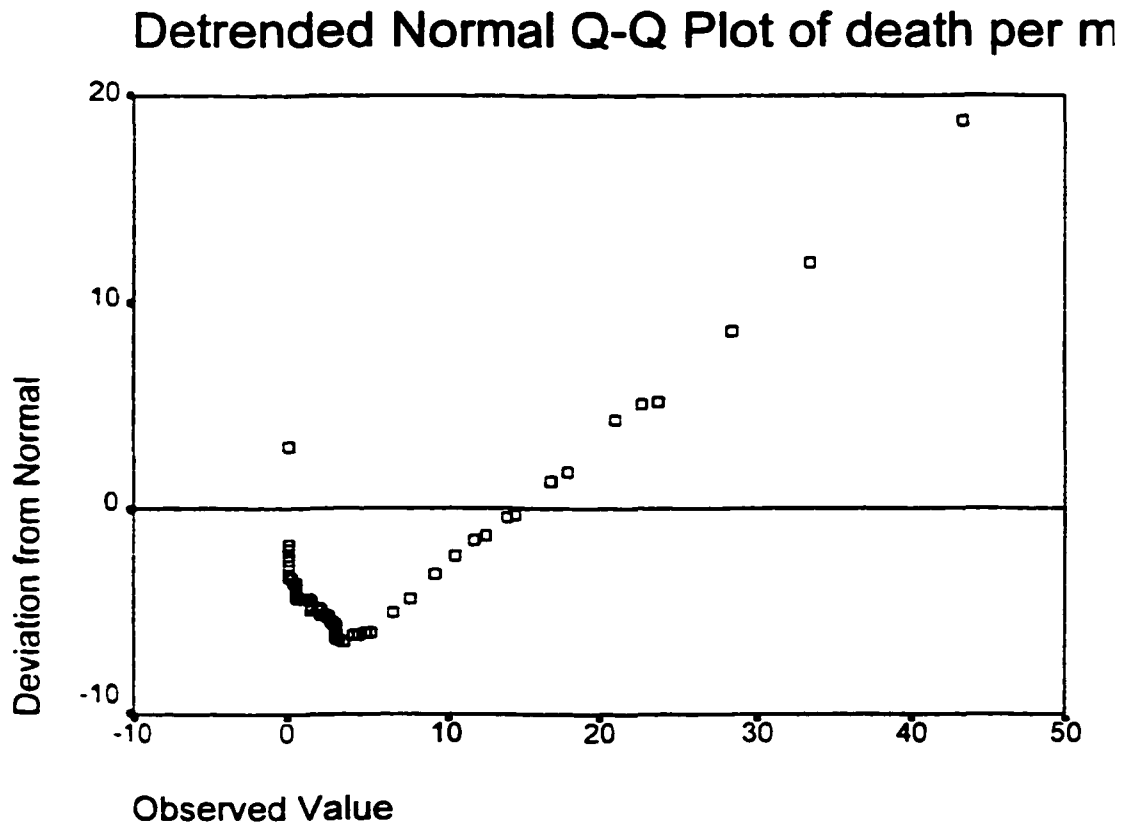


Figure 4.3 The P-P Plot of Dependent Variable after Log Transformation: Death per Million

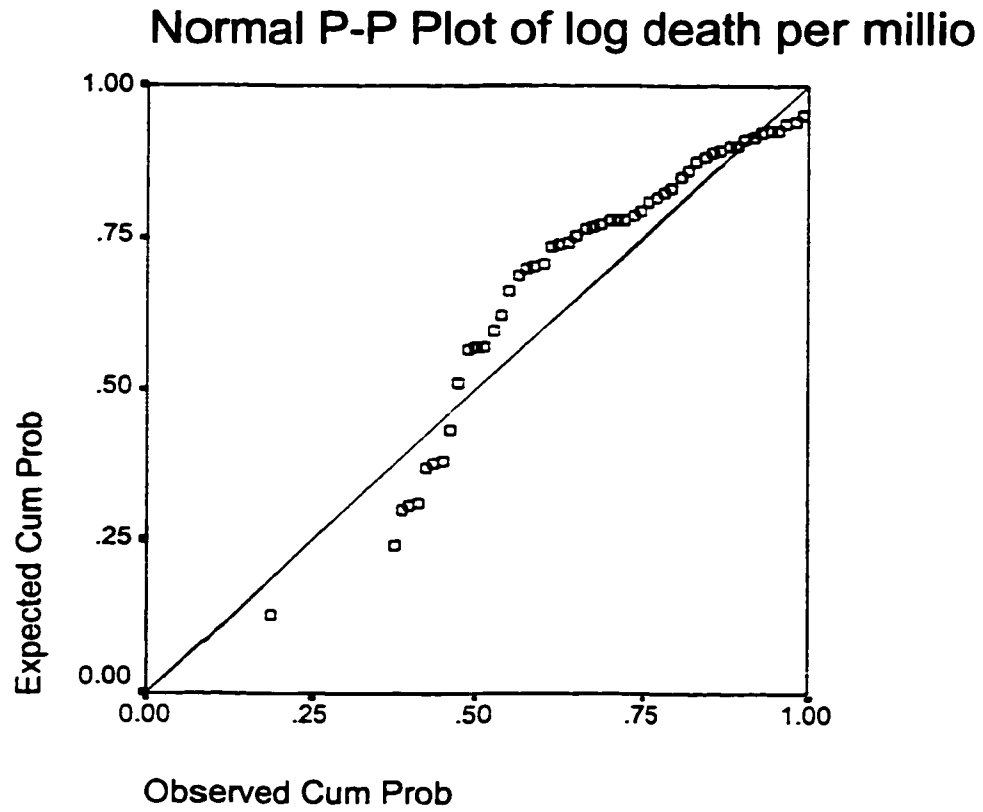
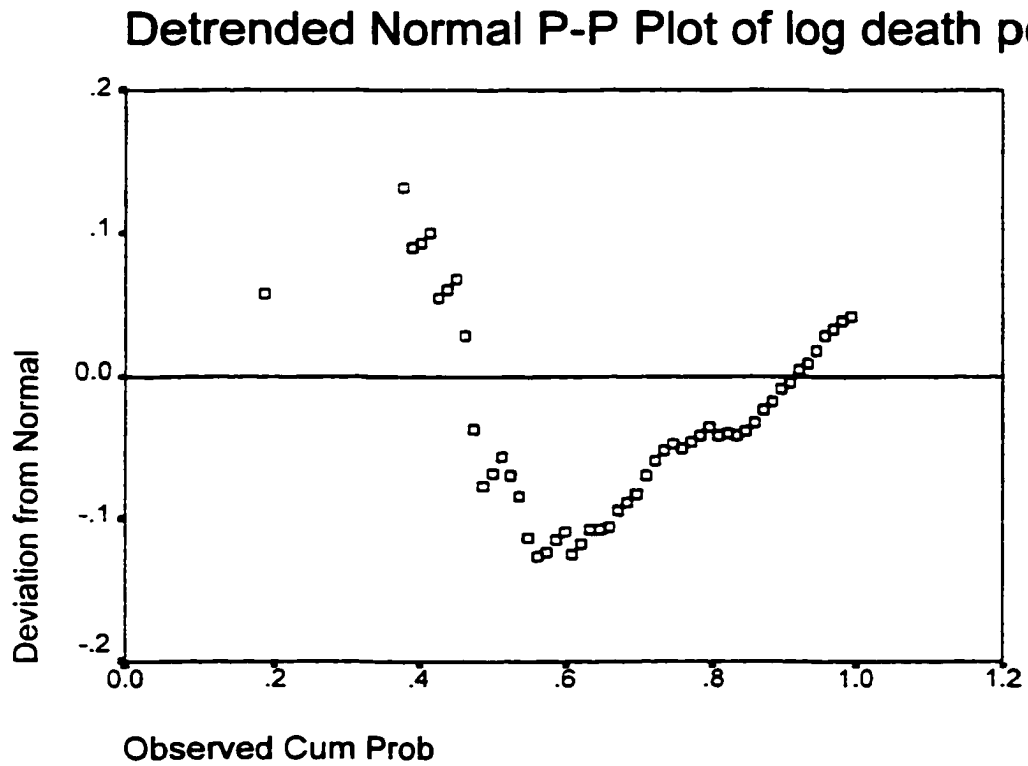


Figure 4.4 The P-P Plot of Dependent Variable Deviation from Normal Curve after Log Transformation: Death per Million



**Table 4.3 Multivariate Regression Table: Death per Million (log) as Dependent Variable**

Formula	%explanation	Independent Variables										F value & significance	
	R Square Adjusted	ethnic separatism	ethnic intensity	top 20% Income shar	land in-equality	urbaniza-tion rate	literacy rate	trade as % of GDP	average eco growth	political rights	civil rights	F Value	significance
formula a	0.31	*-0.437	0.382	*0.487	-0.306	0.124	-0.029	0.05	*-0.44	-0.241	-0.023	0.81	0.623
formula b	0.133	-0.297	*0.512	*0.291	0.215							2.146	0.104
formula c	0.151	*-0.292	*0.495	*0.305								3.068	0.042
formula d	0.112	-0.127	*0.432		*0.392							2.554	0.72
formula e	0.209	-0.225	*0.362					-0.066	*-.401			3.973	0.008
formula f	0.025			0.223		0.083	0.094		*-0.304			1.259	0.304
formula g	0.04			-0.078	-0.073	0.244	-0.136					0.386	0.817
formula h	0.236	-0.118	*0.444			0.035	*0.264		*-.459			3.774	0.007
formula i	0.068	-0.173	*0.407									2.706	0.078
formula j	0.256	-0.224	*0.373						*-.449			6.272	0.001
formula k	0.241		*0.236						*-.432			8.298	0.001
formula l	0.247		*0.238	*0.292					*-0.373			4.725	0.008
formula m	0.289	*-.321	*.444	*.312					*-.389			4.449	0.006

(1) \* represents t value is larger than 1.50 or smaller than -1.50.

(2) all coefficients are standardized (Beta).

variables are significant. Formula J is also a good formulation. To ethnic intensity and average economic growth, Formula J adds one more variable, namely ethnic separatism. Formula J explains 25.6 percent of the variation in political violence with an F value 6.272 (significance 0.001). Formula M explains the largest amount of variation in political violence ( $R^2$ -adjusted = 28.9). To Formula K, Formula M has added ethnic separatism and income inequality but its F value is only 4.449. Therefore, using the F value as a statistic of model adequacy and relying on the principle of parsimony, “the fewer the parameters, the better the model,” formula K is accepted as the best formulation from the multivariate regression analysis. The multivariate regression analysis tells us that ethnic variables and national economic variables play an important role in explaining political violence. Higher ethnic intensity increases political violence. Higher ethnic separatism and average economic growth reduce political violence. Regime repression (deprivation of political rights and/or civil rights), modernization variables (urbanization rate and literacy rate), and economic inequality are not directly related to political violence, but they are possibly indirectly related to political violence.

The other multivariate regression analysis is a causal model. The most important character of the causal model is that this model will clearly demonstrate through statistical sensitivity analysis which independent variable explains the dependent variable the best. In Table 4.4, the three models clearly show that ethnic

**Table 4.4 Standardized Regression Coefficient of the Independent Variables on Political Death Rate**

<b><u>Independent variables</u></b>	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>
ethnic intensity	<b>**0.303</b>	<b>*0.236</b>	<b>**0.373</b>
economic growth rate		<b>***-0.432</b>	<b>***-0.449</b>
ethnic separatism			<b>-0.224</b>
<b><u>Summary statistics</u></b>			
Adjusted R square	<b>0.072</b>	<b>0.241</b>	<b>0.256</b>
F statistics	<b>4.544</b>	<b>8.298</b>	<b>6.272</b>
p value	<b>0.039</b>	<b>0.001</b>	<b>0.001</b>
<b>N = 87</b>			
<b>*** significant level .01</b>			
<b>** significant level .05</b>			
<b>* significant level .10</b>			

variables and economic growth rate explain the greater part of political violence. Among them, model 2 is the best; it explains 24.1 percent of variation political violence with  $F=8.298$  and  $p=0.001$ .

### **Modernization and Ethnic Groups**

From the results of multivariate regression analysis and the Spearman Rank correlation analysis, we know that ethnic groups and modernization are related to political violence. The western model of modernization contains certain components and sequences. For example, increasing urbanization tends to raise literacy; rising literacy tends to increase media exposure; increasing media exposure tends to bring wider economic participation; more economic participation tends to stimulate higher political participation (Lerner, 1958, p.46). Another modernization model is provided by Deutsch. He defines social mobilization as follow (Deutsch, 1961, p.493-494):

**An overall process of change, which happens to substantial parts of population in countries which are moving from traditional to modern ways of life.... Major clusters of old social, economic and psychological commitments are eroded or broken and people become available for new patterns of socialization and behavior.**

What are the effects of modernization on ethnic groups? There are two conflicting views: One is that the processes of modernization and social change will weaken ethnic groups' solidarity. In contrast with this view, the other holds that ethnic groups

will revive as discreet communities during the period of modernization. Let us examine each in turn.

**(1) Modernization will break down ethnic identity**

**1) Liberal and Marxist Views**

The Liberal and Marxist approaches have a considerable overlap on their views of ethnic groups and modernization. Both approaches posit the following: In traditional society, people lived in small rural communities. These communities were isolated from one another physically. Mass communications and transportation were also limited. The Liberal view expected that industrialization, urbanization, and the spread of education would reduce ethnic consciousness. In addition, the growth of commerce would bring previously isolated groups into closer contact and give them more incentives to cooperate with each other. More modern education and mass communications would gradually erode the old social systems. Literacy becomes universal. A great number of people become familiar with modern science. Increasingly the older traditions and conventions would be challenged. Universalism would replace particularism. Hence, old narrow ethnic loyalties with their old customs and values would tend to give way to economic and class divisions.

The Marxist approach emphasizes class interests with stress on the role of the working class. In this view class interests are much more important than ethnic and



state interests. Racial and ethnic identification are ultimately secondary to the roles of economic and technological change. Similarly, the transition to socialism would mean the end of the narrow ethnic loyalties and consciousness and the reducing of ethnic conflicts.

Most modernization theorists (Deutsch, 1953; Apter, 1965) share the liberal and Marxist view that as societies become increasingly industrialized, the concomitant change in relations of production would erode class, racial, and ethnic consciousness. An industrial society requires a commitment to a rational and secular outlook which is needed for productive efficiency and profitability. In this view consumers would judge the value of a commercial enterprise and its products or services according to the quality of the product, which would reflect the skill and expertise that the management and workers had put into their product, rather than judging the product or enterprise by the national, ethnic or racial identity of the manufacturer or service provider. Whereas the members of a parochial village society might scorn buying products from a rival neighboring village consumers today buy many products which are of foreign manufacture or else which have minimal local content in spite of slogans to "Buy American!" and the like. Similarly, an industrial society needs and promotes social mobility, de-emphasizing "status by ascription" and replacing it with "status by achievement." Thus industrialism transforms society by undermining the traditional order and creating a new pattern of social

relationships. Therefore, modernization would weaken ethnic solidarity and establish new social relationships.

## 2) The Weakening of the Cultural Division of Labor

Hectare (1976) argued that in many traditional societies a cultural division of labor, which usually causes ethnic conflicts, has existed for a long time. He claimed that individuals with different cultural traits are unevenly distributed in the occupational structure; a phenomenon called the cultural division of labor. A hierarchical cultural division of labor exists if all members of one ethnic group have high rank in a society. A segmented cultural division of labor exists if the members of two ethnic groups do not differ in their social ranks but merely in their occupational specialization. Hectare made two assumptions: 1) the stronger the cultural division of labor, the stronger the ethnic conflicts, and 2) a hierarchical cultural division of labor is apt to cause stronger conflicts than a segmented cultural division of labor. But any kind of cultural division of labor is extremely difficult to maintain in a more modern society with growing occupational specialization and the spread of education. Therefore, in a developing society, ethnic conflicts should gradually become lower.

Hectare's notion of the cultural division of labor is very similar to Horowitz's classification of "ranked and unranked" ethnic systems (1985, p.21-24). In a ranked

system, the relations of ethnic groups are hierarchically ordered. Mobility opportunities are restricted by group identity. The political, social, and economic status of each group tends to be cumulative; one ethnic group is subordinate to another ethnic group. In other words, relations between ethnic groups clearly involve subordinate and superordinate status. In an unranked group system, parallel ethnic groups coexist. The political, social, and economic status of each ethnic group is almost the same as those of other groups. But each ethnic group is internally stratified. Members of a ethnic group may be divided by a vertical cleavage.

### 3) Loyalty to A Larger Community through Contact

According to modernization theory, greater political and economic interaction among people and widespread communication networks would “break down” people’s parochial identities with ethnic groups and replace them with loyalties to larger communities such as a state, and people gradually might even learn to see each other as members of a worldwide family of man (Forbes, 1997, p.2). Forbes emphasizes that contact with others would reduce prejudice. In the processes of modernization, ethnic groups have much more opportunity to experience other groups’ traditions and cultures. While it seems certain that no contact leads to no conflict, his general rule is actually the opposite: increases in contact generally lead to reductions of conflict. Forbes (p.146) argued that there was no contradiction

between saying that contact tends to reduce the cultural differences among ethnic groups and also that contact also tends to stimulate efforts to preserve an ethnic group's traditions. Contact seems to be a cause of conflict but it is also a cause of assimilation. Forbes (P.147-148) indicates that when two ethnic or cultural groups find themselves with economic incentives to cooperate in a wider division of labor, they also will find themselves in a conflict of interest regarding the quality of their cooperation. Using linguistic assimilation as an example, he exemplifies the process of assimilation between two groups. Through contact and understanding, Forbes argues that in the long run, ethnic groups tend to cooperate with each other.

#### **4) Multiple Identities**

A key feature of modern society is that an individual can be a member of several organizations. This phenomenon is referred to as having multiple identities. Multiple group identification is one of the great changes in the passage from traditional to modern society. Simmel (1955) indicates:

**The modern type of group-formation makes it possible to the isolated individual to become a member in whatever number of groups he chooses. Many consequences resulted from this. (P.140)**

According to Simmel, multiple identities result from the processes of modernization and are related to the process of ethnic group formation. Multiple identities stimulate and maintain ethnic loyalties on the one hand, but also weaken ethnic conflicts on the

other. Allardt (1981, p.106) argues that in a modern society ethnic groups are able to voice their demands in terms of publicly accepted policy goals and to direct their claims to the state rather than against other ethnic groups. Therefore, growing awareness of ethnic identities does not necessarily facilitate ethnic conflict potential.

Deutsch assumes that ethnic identity will wither away as the processes of modernization occur (1966). Modernization, in the form of increases in urbanization, industrialization, schooling, communication and transportation facilities, would lead to assimilation. In another of Deutsch's works (1963), he explains in more detail how the processes of modernization lead to weakening the power of minority groups (p.5).

Many writings on Africa and Asian politics still seem to treat tribes as fixed and unlikely to change in any significant way during the next decades. Yet in contemporary Asia and Africa, the rates of cultural and ethnic change, although still low, are likely to be faster than they were in early medieval Europe....Research is needed to establish more reliable figures, but it seems likely from the experience of ethnic minorities in other parts of the world that the process of partial modernization will draw many of the most gifted and energetic individuals into the cities or the growing sectors of the economy away from their former minority or tribal groups, leaving these traditional groups weaker, more stagnant, and easier to govern.

Deutsch's idea is that the processes of rural tribal people moving into the cities would weaken ethnic identity. But the same process could also, in theory, strengthen ethnic loyalty. Gellner (1965, chapter 7) argues that modernization would shatter rural people and make them seek protection by identification with their ethnic group.

Gellner's theory will be further described in the next section.

A principle of "isomorphism" is mentioned in Olzak's article (1998, p.206). In the processes of modernization, political and economic sectors expand the power of the nation-state. The same processes stimulate the scale of potential political organizations because modern political systems favor large-scale organization. In order to compete for resources in national political systems, small scale groups are forced to integrate with other larger political groups. For example, local small scale groups, such as an ethnic group, must reorganize or its expand ethnic boundaries to include the largest possible subunits to compete effectively in the national level. The integration of different groups also creates multiple identities and further reduces ethnic conflicts.

(2) Modernization will strengthen ethnic solidarity and increase ethnic conflicts

1) Ethnic Group Solidarity Is Threatened by Modernization:

But other theories challenge this idea that modernization will break down a people's identity. For example, Horowitz (1985) indicates that people's ethnic and religious identities have deep social, historical, and genetic foundations. Modernization is a threat to ethnic solidarity. Ethnic groups would mobilize to defend their own culture and way of life, because with increasing transportation and

communications under modernization, ethnic groups are more aware of their own distinct cultural or ethnic identity. They are afraid of being assimilated into the dominant culture and political system. Connor (1972) questions Deutsch's theory by illustrating that ethnic consciousness is definitely in the ascendency as a political force. Connor claims that modernization results in increasing demands of ethnic separatism. Multiethnic states at all levels of modernity have been afflicted by this trend. He thinks that the argument that greater intergroup contact necessarily will mean greater assimilation is wishful thinking and writes:

While the idea of being friends presupposes knowledge of each other, so does the idea of being rivals.(p.339)

Breaking down old social structures might not weaken ethnic groups but instead might revive ethnic movements. Education, literacy and a certain amount of technical skill are primary requirements for citizens to participate in modern society. This means that fewer people can claim their right to their jobs and positions in modern political and economic system on the basis of ascription instead of achievement. That also means most jobs and positions formerly held by some ethnic groups have been challenged or have become impossible to maintain as an exclusive ethnic preserve. The traditional social structures, with features of ascriptive relationships, have been eroded by the force of modernization. Ethnic symbols and

formal organizations have gradually replaced the old structures because ethnicity provides the common bond.

Gellner in his Thought and Change. (1965, chapter 7) described how small villages and towns were shattered by modernization. Many people in villages had been uprooted and driven to the cities. Their lifestyles and beliefs had been largely destroyed. In the new cities, these uprooted peasants no longer possessed anything on which to rebuild communities except their language and culture. Language and culture replaced the village and tribal structures and played the role as the cement of society. In this situation, social conflict might become ethnic antagonism. This might happen when the newcomers, the uprooted peasants, would be visibly different in comparison with the old city dwellers, having entirely different belief systems and customs, or speaking different languages. In such cases the city dwellers might resort to cultural exclusion and ethnic job reservation which would lead to creating “advanced” and “backward” groups in a society or a horizontal division of labor among ethnic groups. This process stimulates ethnic identity and increases ethnic conflict.

Davis also supports the idea that modernization leads to ethnic conflicts. He describes the influence of social change on generating nationalism sentiment (1955) as:



With the world organized as it is, nationalism is a *sine qua non* of industrialization, because it provides people with an overriding, easily acquired, secular motivation for making painful changes. National strength or prestige becomes the supreme goal, industrialization the chief means. The costs, inconveniences, sacrifices and loss of traditional values can be justified in terms of this transcending collective ambition. (P.134)

In contrast with Gellner's emphasizing group commonalities, Melson and Wolpe (1970) emphasize that social mobilization fosters "group competition." They state that:

it is the competitor within the modern sphere who feels the insecurities of change most strongly and who seeks the communal shelter of tribalism. (P.1115)

This school emphasizes group commonality and group competition in the processes of modernization. The result is obviously ethnic group conflicts. The theories of Melson and Wolpe, and of Gellner, that claim ethnic sentiment is reviving in the process of modernization obviously contradict Hectare's theory which assumes ethnic sentiment is withering away.

## 2) An Instrumental Perspective on Ethnic Conflicts

Charles Tilly (1978) interprets all civil conflicts as resulting from the instrumental pursuit of group interests. This instrumental perspective challenges the view that modernization would break down the ascriptive differences between group

identities for it holds that one effect of modernization would be to increase economic differences, or to increase the resentment of differences, between ethnic groups (Gurr and Harff, 1994, p.78). In order to win support, a political leader would find it expedient to play upon such differences to establish an ethnically-based political movement. The ultimate goal of a political leader is to increase material and political gains and the political leader only would invoke cultural identity as a means to getting more power. The first challenge emphasizes the defense of ethnic identity. The second challenge emphasizes the pursuit of group material and political interests. Language is regarded a important component and useful tool to mobilize ethnic groups. For example, in India different ethnic groups speak different languages. A political leader could easily play on group consciousness through language differences to obtain popular support. However, trying to mobilize Hindi-speaking people would easily create negative political reactions among other non Hindi speakers. The reviving of ethnic identity through language as political tool has become popular not only in India but also in other countries in the world.

### 3) Modernization Unevenly Affecting Ethnic Groups

Another scholar's research is very similar to Hectare's cultural division of labor but had different results. Lijphart (1977) mentions two kinds of ethnic group

relations – vertical ethnic groups and horizontal ethnic groups<sup>21</sup>. Vertical ethnic groups refer to ethnic groups having a roughly equal social position while horizontal ethnic groups mean ethnic groups that clearly differ in regard to their respective class, status, and power. He further indicates that in the western world ethnic group relations are becoming more of the vertical type. But in a developing society, the horizontal stratification of ethnic groups tends to be a side-effect of modernization process since modernization unevenly affects different ethnic groups and regions.

Melson and Wolpe (1970, p.1115-1117) also have noted that the benefits of modernization are not equally spread among ethnic groups. This uneven distribution of economic and other opportunities in the modern sector is an important source of group tensions because some groups obtain a head start in the competition for the rewards of the modern world. Ethnic groups that are more wealthy and better educated tend to be envied, resented, and sometimes feared by other groups. This explains one possible source of ethnic conflicts.

Horowitz (1985, p.147-148) mentioned that some ethnic groups are “backward” while others are “advanced.” By this he means that a group might be advanced because its members were disproportionately educated and represented in the civil service, or were disproportionately wealthy and well represented in business.

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<sup>21</sup> Lijphart’s view on ethnic relations is very similar to Horowitz’s . For instance, vertical ethnic group and horizontal ethnic group are compared with ranked and unranked ethnic relations (Horowitz, 1985, p.21-24).

Similarly a group might be regarded as backward because its members lived disproportionately in rural areas, or else were disproportionately poor and uneducated. The differences between advantaged and disadvantaged ethnic groups could be another source of ethnic conflicts.

Why would some groups be backward and others more advanced? Horowitz calls this dichotomous characterization of ethnic groups in the process of modernization “differential modernization.” He further lists several reasons to explain differential modernization in the following (p.151-155):

1. The location of an ethnic group’s home territory: being located near a rail line, port, commercial center provides a head start of modernization.
2. Natural endowments near the home territory: natural endowments compensate for a disadvantageous peripheral location
3. Educational opportunity: an ethnic group is located near schools or is willing to migrate to an area to gain education opportunity.
4. Cultural attributes: an ethnic group is receptive to change, or is willing to pool capital for education or for managing business

According to Horowitz, geographic factors and cultural traits determine whether an ethnic group will be “advanced” or “backward.” Horowitz also provides proof that an uneven distribution of the benefits of modernization exists in developing countries. In addition to natural geographic factors and cultural traits, the intervention of foreign powers could also determine whether a given ethnic group were to be “advanced” or

“backward.” Bowen (1996, p.6-7) states that colonial masters play some roles in creating “advanced” and “backward” groups. In order to firmly control their colonies, the colonial powers often chose certain local minority groups as their partners in managing colonial territories. The foreign powers gave these partners privileged access to education and jobs. After the former colonies became independent, the former colonial partners became more advanced, elite groups due to their better education and skills even though they were minority groups. The uneducated and poorer majority ethnic group starts competing for political and economic resources with these superior minorities. Ethnic conflicts ensue some of which even lead to civil war.

#### 4) Ethnic Groups in Competition

Modernization is regarded as creating conflict by increasing intergroup competition. Economic development breaks up traditional ties and brings previously separate groups into competition in the same labor market. Similarly, urbanization creates competition for housing, schooling, and other government services. Members of an ethnic group find that they become more effective in obtaining better social resources when they act as a cohesive group. Olzak (1983) describes vividly ethnic competition (p.362):

**As groups come to compete in the same labor markets and increase their access to similar sets of political, economic, and social resources,**

**ethnic mobilization will occur.**

**The uneven distribution of the benefits of modernization leads to some ethnic groups gaining better education, earning higher income, and enjoying superordinate social status. In contrast, the lower educated, income, and social status' ethnic groups may feel a sense of relative deprivation. The backward ethnic groups define their situation as one of being exploited. Mughan (1979) argued that ethnic divisions resulting from a sense of relative deprivation is a necessary condition for ethnic conflict. The mere experience of a relative deprivation that cut across all ethnic lines would not lead to ethnic conflict. He further describes that it is the distribution of power resources which directly leads to ethnic conflict. During the colonial period, all ethnic groups were subordinate to a colonial master and the ethnic groups' balance of power was basically unchanged. After World War II, many colonies became independent and the "advanced" ethnic groups, with better education and skills, suddenly took control of the newly independent state. The balance of power between the advanced and backward ethnic groups shifts upon the departure of the colonial power. The advanced ethnic groups, possessing more political power make the other groups insecure. In Sri Lanka, the ethnic inter-group relations between the Sinhalese and Tamils after independence in 1948 is among the best examples of Mughan's theory regarding the balance of power between ethnic groups.**

**Table 4.5, on the following page, clearly summarizes all theories related to**

Table 4.5 Theories of Modernization and Ethnic Conflicts: A Summary

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Modernization Reduces Ethnic Conflicts

Liberal view:

Deutsch, Apter

Universalism over particularism

Achievement over ascription

Deutsch

People from rural area losing tribal awareness

Hectare

Weakening cultural division of labor

Forbes

Contact reducing prejudice

Loyalty to larger community

Simmel

Multiple identity reducing ethnic conflicts

Olzak

Ethnic groups being forced to integrate with other organizations

Marxist view:

Marx

Class interests over ethnic interests

Modernization Increases Ethnic Conflicts

Horowitz

Ethnic groups defending their own life and culture (primordial attachment)

Gellner

City life forcing people to seek ethnic commonality

Davis

Social change generating nationalism

Melson and Wolpe

Modernization increasing ethnic groups competition

Gurr and Harff

Ethnic identity as instrumental tool for more resources

Lijphart, Melson and Wolpe, Horowitz

Modernization unevenly affecting ethnic groups

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modernization and ethnic conflicts.

This research finds that higher levels of modernization correlate with lower levels of political violence. The relationship is weak but significant. In other words, the Liberal and Marxist views that the processes of modernization break down ethnic identity are better supported by the statistical evidence. It is probable that all theories of multiple identity, contact argument, and weakening cultural division of labor contribute to explain lower ethnic loyalty. Two typical modernization variables, urbanization rate and literacy rate, obviously are negatively correlated with strength of ethnic variables (see Table 4.6).

Table 4.6 Correlations between Modernization and Ethnic Variables

	<u>ethnic separatism</u>	<u>ethnic intensity</u>
<u>urbanization rate</u>	-0.483***	-0.477***
<u>literacy rate</u>	-0.655***	-0.551***

\* significant at the 0.10 level (2-tailed)  
\*\* significant at the 0.05 level (2-tailed)  
\*\*\* significant at the 0.01 level (2-tailed)

The findings are statistical generalizations: the relationship of modernization and ethnic identity is negatively moderately related. A statistical generalization cannot explain every unique case. Therefore, it does not mean all states having higher level modernization must experience lower ethnic separatism and intensity.



The better description of modernization's influence on political violence has to be assessed in two unlike periods: In the first stage of modernization, each ethnic group is easier to unite due to competition for resources and the uneven effects of modernization. But in the long run, the modern characteristics of industrialization gradually override ethnic loyalty. In other words, achievement is more important than ascription. This explanation is consistent with Gurr's research (1994, p.347) that modernization would lead to a decline in ethnic identities to be replaced by loyalties to larger communities.

### Fragmentation and Group Conflicts

Only a few countries in the world are linguistically, religiously, and ethnically homogeneous, Iceland being an example of one such nation. Most countries are in some degree fragmented; their population consisting of several or more ethnic groups (Conner, 1972). It is correct usually that the more fragmented a society is, the more likely it is that society may experience political violence, however the structures of the ethnic groups may also determine levels of political violence. Auvinen (1997, p.178-179) argued that a society with a large dominant ethnic group could provoke political violence if the much smaller groups found themselves to be subject to political and economic discrimination. However, if the dominant ethnic group is close to one hundred percent of the population then the very small minority group

would be too weak to mobilize political conflict. Horowitz (1985, p.437) states that the closer the size of the major ethnic groups, the greater the chance of domestic conflict or a coup d'état because each of them is competing for dominant political power. According to Brown and Boswell's (1997, p.122) argument that fragmentation could reduce political violence, the presence of many ethnic groups in a society, with no one group being dominant, would mean that no one group would be large enough to mobilize conflict. Another hypothesis is that political violence is most likely to occur in a society in which the dominant ethnic group being relatively large but not so large that a slightly smaller ethnic group would be unable to secure resources to mobilize conflict. The question is, what is meant by "large, but not too large"? Ellingsen (2000, p.233) chose a threshold of eighty percent as "large and not too large." His research confirmed that societies in which the size of the dominant ethnic group was less than eighty percent of the total population had a greater propensity for domestic conflict than a society in which the size of the dominant group equaled or exceeded eighty percent of the total population.

From the multivariate regression table, the coefficients of the variable "ethnic separatism" are always negative (but some are not significant), which can be interpreted as meaning that ethnic separatism is more or less negatively related to levels of political violence. From statistical results of this research, Brown and Boswell's argument (1997), and Ellingsen's findings, the structure of ethnic groups

does affect level of political violence; the more fragmented a society is (especially with many small ethnic groups without a dominant one in a state), the less likely it is that the society will experience political violence. The current research cannot directly confirm Horowitz's theory and Ellingsen's findings as the data used in the research do not contain percentages of each ethnic group in a society.

### Group Relative Deprivation

Horowitz (1985, p.141) indicates that ethnic groups tie their differences to affiliations that are putatively ascriptive and therefore difficult or impossible to change. In fact, ethnic groups are always comparing themselves with others, and the quest for group worth and collective self-esteem is universal. Before the advent of colonialism, the struggle for relative group esteem was small scale, localized and sporadic. After World War II, the modern cash economy has brought together in constant interaction many previously separate and isolated ethnic groups. Ethnic Groups comparing themselves with other groups and their struggling for relative group esteem has become more intense and pervasive (Horowitz, 1985, p.66-77) and this may be one cause of ethnic conflicts today.

Another factor of ethnic conflicts is related to the role of foreign powers. Ethnic heterogeneity, especially in Africa, has often been the result of national boundaries having been drawn by foreign powers. The national boundaries very often

tear apart a tribe or an ethnic group. In addition, the foreign powers' preferential treatment of ethnic groups also has affected ethnic relations. For example, the British treated Malays and non-Malays differently in Malaysia. The Malays were granted land rights by British, and their aristocratic sons were granted a separate college. Later on, these aristocratic sons were recruited into public service positions. After independence, Malaysia continued the system of quotas and privileged access and created severe ethnic conflicts (Jalali and Lipset 1992-1993, p.590).

Most developing countries had low economic resources during the 1960s and 1970s. It is no surprise that ethnic groups' consciousness of "us versus them" was easy to mobilize in the pursuit of access to political power and economic and social advantages. The outcome was that dominant groups or minority groups discriminated against each other.

Gurr (1968) carried out comprehensive research on political violence. He distinguished between long-term deprivation (persisting deprivation— which included both economic deprivation and political deprivation) and short-term deprivation (export values dropping and high inflation rates), and he also considered mediating factors (conflict tradition, institutionalization-party system stability, and regime coerciveness-military personnel per ten thousand adults) in his analysis. His model explained sixty-five percent of the variation in the total magnitude of civil strife. Of the independent variables, long-term persisting deprivation accounted for twenty-four

percent of political violence while short-term deprivation accounted for twelve percent. Gurr's long-term persisting deprivation implied that certain groups were discriminated against politically and economically by governments or by other groups.

In Gurr's more recent research (1993, p.38), he found that the more sharply distinct the communal groups are culturally from the dominant groups, the more they tend to suffer from political and economic inequalities. In the global comparison of communal groups (totally 233 groups in Gurr's research), about two-thirds (147 of 233) of the communal groups experienced some types of economic discrimination (p.45). About seventy-two percent (168 of 233) experienced some kinds of political discrimination (p.48). Gurr also pointed out that the greatest political discrimination was occurring in African and Middle Eastern countries. Gurr believed that economic differentials were greater than political ones because political differentials were easier to address through governmental power (p.41-42).

Table 4.7 lists the correlation between ethnic variables and political rights. The positive correlations (from 0.424 to 0.251) demonstrated that the higher ethnic separatism and intensity are correlated with lower political and civil rights.

This research does confirm, to some degree, Gurr's findings regarding political discrimination. Without economic data related to ethnic groups, such as a group's per capita income, this research cannot confirm his hypotheses regarding economic

**Table 4.7 Correlation between Political and Ethnic Variables**

	<u>ethnic separatism</u>	<u>ethnic intensity</u>
<u>political rights</u>	0.251*	0.288**
<u>civil rights</u>	0.319**	0.424***

\* significant at the 0.10 level (2-tailed)

\*\* significant at the 0.05 level (2-tailed)

\*\*\* significant at the 0.01 level (2-tailed)

discrimination. However, from Gurr's empirical research, ethnic groups experiencing some kind of economic discrimination would likely conduct protests or become involve in political violence. Gurr noted that from 1945 to 1989, more than 200 of these 233 groups (about eighty-six percent) organized to defend their interests against the other ethnic groups or government. In these conflicts, more than 80 cases became civil war (Gurr 1993, p.6). Gurr and Harff (1994, p.83) also state that:

when a group with a common ethnic identity is discriminated against, it likely to be aggressive and hostile.

Therefore, it is fair to say that if an ethnic group suffers social, political and economic discrimination, it is very likely that this group will regard this as group relative deprivation and undertake violent actions.

### **World-System Theory and Political Violence**

In contrast with modernization theory, the World-System theory focused on the global structure of the capitalist world economy. Wallerstein (1974) argued that national economic growth, inequality and social political change could be understood through the analysis of a nation's relative position in the hierarchy of the world system. Having a non-core position as a developing countries also would increase the potential for political violence by expanding uneven social and economic development. The processes in the non-core position (or peripheralization) of world economy could include any of the following mechanisms which would and increase the possibility for social unrest:

(1) Foreign transnational corporations might take advantage of low wage rates in the developing countries, even if the wage paid by these corporations were still higher than the local average wage. In additions, local elites hired by transnational corporations to manage manufacturing receive a lot more wages. These two factors expand economic inequality in developing countries and contribute to political violence.

(2) As the developing countries are penetrated by foreign transnational corporations, the domestic economic production is concentrated in external trade in which the export commodities only earn a small rate of profits. This uneven economic structure leads to an "export enclave" economy (Moaddel, 1994, p.282). The export enclave economy is characterized by unbalanced development between

international and domestic production. The main consequence of having an export enclave economy is an increased vulnerability to fluctuations in the international market price change and demand. The international economic conditions easily affect the domestic social order through destabilizing economic production. Thus, in a word, political violence is triggered by having an export enclave economy.

(3) Foreign transnational penetration encourages the non-core states to formulate preferential economic policies to attract international capital at the expense of other local economic sectors. Not only that, but non-core state authorities could repress protest activities by local victimized economic sectors in response to unfair economic resources distribution. The protests and their repression would increase levels of political violence.

There are variants to the world-system approach regarding income inequality. For example, Chase-Dunn (1975) found that economic dependence was a significant predictor of income inequality. Several scholars, including Bornschieer and Chase-Dunn (1985,) London and Robinson (1989), and Boswell and Dixon, (1990), found a positive relationship between foreign capital penetration and income inequality by using the Gini index of land inequality and percentage income share by the top twenty percent of population. Trade dependence relating to income inequality also is found by Moaddel (1994).

This current research demonstrates that there is not enough evidence to support



the world system theory's claims. As a matter of fact, foreign trade is negatively correlated with political violence (see Table 4.8 below, and table of multivariate regression analysis). In addition, foreign trade is not significantly correlated with economic inequality--income and land inequalities. The research findings confirm T. Y. Wang's research (1993) finding that foreign economic penetration actually reduced levels of political violence.

Table 4.8 Correlations between Economic Variables Political Violence

	<u>income inequality</u>	<u>land inequality</u>	<u>political violence</u>
<u>foreign trade</u>	not significant	not significant	-0.264***
<u>economic growth</u>	not significant	not significant	-0.210**

\*\* significant at the 0.05 level (2-tailed)

\*\*\* significant at the 0.01 level (2-tailed)

### Modernization and Democracy

Economic development is considered to help promote transitions to democracy. Many scholars (Boswell and Dixon 1990, p.554; Muller and Weede 1990, p.152-159) have argued that modernization with increasing resources could reduce the tension generated by political conflicts. The classical argument is from Lipset (1959, p.75):

The more well-to-do a nation, the greater the chance that it will sustain democracy.

Modernization encourages better education, higher social mobility, and free flow of information. Together, these should increase adaptability and tolerance. This research was not designed to prove what factors lead to democracy, however, it does reveal that the modernization variables (urbanization rate, literacy rate, and economic growth rates) are clearly all correlated with levels of democracy (see Table 4.9 below). The higher level of modernization is, the higher is the degree of democratization.

Table 4.9 Correlations between Modernization and Democratic Variables

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	<u>political rights</u>	<u>civil rights</u>
<u>urbanization rate</u>	-0.226**	not significant
<u>literacy rate</u>	-0.477**	-0.437***
<u>economic growth rate</u>	-0.253**	-0.185 (sig. 0.126)

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\*\* significant at the 0.05 level (2-tailed)

\*\*\* significant at the 0.01 level (2-tailed)

The correlations are negative, because political and civil rights indexes are scaled "1" to "7", where "1" represents the highest degree of democracy and "7" represents the lowest degree of democracy.

## **Economic Inequality and Political Violence**

**Economic inequality is usually thought to promote political violence. For example, many scholars believe that income inequality is positively associated with political violence (Russet 1964, Tanter and Midlarsky 1967, Park 1986, Muller and Seligson 1987, Boswell and Dixon 1990, Moaddel 1994). But Hardy's (1979) and Weede's (1981) researches do not support the hypothesis that economic inequality leads to political violence. Muller and Seligson (1987) suggest that some research findings that indicate that income inequality is not significantly associated with political violence do so because they fail to consider the impact of regime regressiveness (or cultural factors). In any case many scholars of political violence have argued that economic inequality generates "individual" discontent (or another term—relative deprivation) which in turns triggers political violence.**

## **Relative Deprivation Theory and Political Violence**

**That economic inequality leads to feeling of relative deprivation and then triggers political violence behavior is based on the theory of frustration-aggression found in social psychology. Economic development raises material expectations even while it distributes its benefits unequally, so planting the seeds of resentment and opposition. Economic development may generate the frustration people feel whenever any economic downturn occurs. Furthermore, an inequitable distribution**

of the benefits of economic development frustrates the people because they do not obtain a fair share of increased economic well-being. Under either scenario the dissatisfied people may turn to violence and destabilize society. In essence this is relative deprivation theory.

Robert Gurr set out to demonstrate that relative deprivation was the main cause of political violence. In its more common form this theory holds that high levels of economic inequality would generate discontent which in turn would generate political violence. One important feature of relative deprivation theory is in regard to the intervening role of individual psychology. To test relative deprivation theory would require measuring individual micro-data on perceptions of inequality, the sense of injustice, and feelings of discontent, however it is very difficult to obtain individual data for cross-countries analysis. Hence, it is difficult to confirm the theory in empirical research. Most empirical research to test this theory uses macro-aggregate data, such as income and land distribution data which, however, do not directly reflect levels of individual frustration. It turns out that macro-level data have been used to test the effects of micro-level individual feelings. Hence, some scholars (Muller 1985, p.52; Timberlake and Williams 1987, p.4; Robinson and London 1991, p. 120, Rule 1988, p.203-203 ) question findings supporting relative deprivation theory on methodological grounds. For example, Snyder (1978, p.508) indicated the concept of relative deprivation is best tested at an individual level because it is essentially a

psychological process.

The foregoing arguments questioning the validity of using macro-aggregate data for predicting micro-level effects are reasonable. However, without appropriate cross-countries' individual data, aggregate data becomes the only choice for political violence research for most scholars.

In arguing that it is proper to use aggregate data to test relative deprivation theory, Muller (1985) states:

In societies with high inequality, where discontent is presumably widespread, discontent is more likely to be mobilized somehow, *ceteris paribus*, than in societies with low inequality. Therefore, if the mobilization of discontent is correlated with the extensiveness of inequality, such that when inequality is pervasive some mobilization is almost bound to occur, then the relationship between inequality and political violence should be positive. (P.53)

In addition to Muller's theoretical argument, an empirical study whose findings supported relative deprivation theory was conducted by Canache (1996). Canache, conducting a survey in Honduras during the summer of 1991, tried to investigate the relationship between the individual and collective levels in relative deprivation theory. His study examined individuals' socio-economic positions within the context of their neighborhoods. His research found that political violence is partly determined by the relationship between the individual's perceived level of well-being relative to the neighborhood level of economic conditions. For example, poor people who lived

in relatively well-off neighborhoods were highly supportive of political violence. Canache identified the level of socioeconomic heterogeneity within a neighborhood as moderating a person's perceptions of deprivation, and this person's support of political violence. Based on Canache's research finding, macro-aggregate level data may be used in place of micro-level individual behavioral variables to predict political violence. In other words, aggregate economic inequality data, such as income inequality and land inequality, may properly be used in political violence research.

Table 4.10 showed that income inequality is not significantly related to political violence. Another economic variable, land inequality, is related to political violence but the relationship is less than moderate (0.301). Overall, the research suggests that economic inequality is less significantly related to political violence, and these findings are consistent with Hardy's (1979) and Weede's (1981) reports.

Table 4.10 Correlations between Political Violence and Economic Inequality

	<u>income inequality</u>	<u>land inequality</u>
<u>political violence</u>	not significant	0.301*

\* significant at the 0.10 level (2-tailed)

## The Comparison between Higher and Lower Political Death Rate Countries

Some countries in the research experience very high levels of political violence while others are very low. One way to compare them is to separate them into two groups of higher political violence and lower political violence countries. After examining the data, I choose “one” political death per million population as the boundary since this boundary makes the size (=N) of the two groups more comparable:

Higher political death countries — 37 cases (death  $\geq$  1/per million)

Lower political death countries — 44 cases (death  $<$  1/per million)

The following Tables reveal the differences between the higher and lower political death rate groups: Table 13 shows simple comparisons, while Tables 14 and 15 show correlations of political violence related variables in higher and lower political death rate countries.

Table 4.11 shows that ethnic separatism, income distribution, and civil rights index are very comparable between higher and lower political death countries. Ethnic intensity between these two groups are significant different. Economic growth rate and foreign trade in lower political death countries are higher than those in higher political death countries. One modernization variables, the literacy rate, shows a significant difference between two groups of countries (53.81 for higher death rate and 39.44 for lower death rate) while the difference in the urbanization rate is less

**Table 4.11 The Comparison of Higher and Lower Death Rate Countries**

<u>political death related variables</u>	<u>higher death rate countries</u>	<u>lower death rate countries</u>
ethnic separatism	13.76	14.16
ethnic intensity	1.76	1.11
%income share by top 20% pop	55.71	54.89
land inequality (Gini) index	67.56	59.08
urbanization rate	21.72	18.91
literacy rate	53.81	39.44
trade as % of GDP	45.853	64.53
economic growth rate	2.00%	2.86%
political rights index	5.05	5.27
civil rights index	4.76	4.78

higher death rate countries N = 37

lower death rate countries N = 44

significant. One economic variable, land inequality, showed a much larger discrepancy between the two sets than did income inequality.

Comparing the correlation matrices of higher and lower political death rate countries (Table 4.12 and 4.13), we find the following:

1. In both higher and lower political death rate countries higher urbanization and literacy rates are inversely correlated with ethnic separatism and ethnic intensity.
2. In lower political death rate countries, higher urbanization and literacy rates are associated with lower regime repression. More of the lower regime repression nations also tend to be democratic.
3. In higher political death rate countries, higher urbanization and literacy rates help reduce political violence.



Table 4.12 Correlation Table: All Variables Related to Political Violence (deaths per million >= 1)

	death per million	ethnic separatism	ethnic intensity	top 20% income shar	land in-equality	urbaniza-tion rate	literacy rate	trade as % of GDP	average eco growth	political rights
<b>ethnic separatism</b>										
<b>ethnic intensity</b>	<b>** .384</b>	<b>*** .785</b>								
<b>top 20% income share</b>	<b>** .419</b>									
<b>land inequality</b>		<b>** -.471</b>	<b>*** -.738</b>	<b>* .403</b>						
<b>urbanization rate</b>	<b>** -.323</b>	<b>** -.403</b>	<b>** -.419</b>	<b>** -.460</b>						
<b>literacy rate</b>		<b>*** -.607</b>	<b>*** -.505</b>	<b>** -.541</b>		<b>** .395</b>				
<b>trade as % of GDP</b>					<b>* .372</b>					
<b>average eco growth</b>										
<b>political rights</b>							<b>** -.393</b>			
<b>civil rights</b>		<b>** .458</b>	<b>*** .530</b>				<b>*** .502</b>			<b>*** .690</b>

total cases = 37, Spearman's correlation.  
 The table only covers statistics significant better than 0.10 level (2-tailed).  
 \* significant at the 0.10 level (2-tailed).  
 \*\* significant at the 0.05 level (2-tailed).  
 \*\*\* significant at the 0.01 level (2-tailed).

Table 4.13 Correlation Table: All Variables Related to Political Violence (deaths per million < 1)

	death per million	ethnic separatism	ethnic intensity	top 20% income shar	land in-equality	urbaniza-tion rate	literacy rate	trade as % of GDP	average eco growth	political rights
<b>ethnic separatism</b>										
<b>ethnic intensity</b>		***.957								
<b>top 20% income share</b>										
<b>land inequality</b>	** .388									
<b>urbanization rate</b>		***-.636	***-.628		** .389					
<b>literacy rate</b>		***-.770	***-.730	**-.475	*.346	** .542				
<b>trade as % of GDP</b>	**-.365					** .501	*.262			
<b>average eco growth</b>		*-.409				** .457	** .433	*.315		
<b>political rights</b>	*-.259				**-.514	***-.560	***-.642			***-.431
<b>civil rights</b>					*-.513	***-.424	***-.590		*-.318	***.882

total cases = 44, Spearman's correlation.

The table only covers statistics significant better than 0.10 level (2-tailed).

\* significant at the 0.10 level (2-tailed).

\*\* significant at the 0.05 level (2-tailed).

\*\*\* significant at the 0.01 level (2-tailed).

4. In lower political death rate countries, foreign trade and economic growth significantly increase urbanization and literacy rate.
5. In lower political death rate countries, land inequality is correlated with political violence (0.388) while in higher political death rate countries, income inequality is moderately correlated with political violence (0.419). The overall relationship between economic variables and political violence is not altogether clear.
6. In higher political death rate countries, the civil rights index is associated with ethnic variables. That implies that ethnic groups might experience political and/or economic discrimination.

### Conclusions of the Quantitative Analysis

The research reviewed many theories and variables that have been used in the research into political violence. After correlation analysis, multivariate regression analysis, and simple comparison of higher and lower political violence countries, the conclusions are that political violence is a complex social phenomenon. A number of causes contribute to political violence, and whether the political violence death rates are higher or lower. More discreet and simple conclusions are better described on Table 4.14 on the following page.

The above research findings are consistent with Rummel's research especially the role of ethnic variables and regime repressiveness. Rummel, in 1997 (p.168) research on political violence, found that during 1932 to 1982 21% of political

Table 4.14 Summary of Research Results

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- 1) **Higher levels of modernization reduce political violence**  
**Higher urbanization and literacy rates correlate with lower ethnic separatism and intensity.**  
**Higher economic growth is correlated with lower political violence.**  
**Economic growth increases urbanization and literacy rates.**  
**Higher urbanization and literacy rates are correlated with higher levels of democracy (in terms of better political and civil rights).**
  - 2) **The World-System variables are not significantly correlated with political violence.**  
**Foreign trade is significantly correlated with lower political violence.**
  - 3) **Higher ethnic separatism and intensity are correlated with lower political and civil rights (indirectly implying that political discrimination does exist).**
  - 4) **Relative deprivation (individual level) is not significantly correlated with political violence**
  - 5) **Group relative deprivation is related to political violence.**
  - 6) **Higher levels of regime repression are correlated with more political violence.**
- 

violence (guerrilla and internal war) was accounted for by the number of ethnic groups. He further indicated that in addition to ethnic groups, regime repressiveness also played a role on political violence. His conclusion is “the more nondemocratic

a state [is] and the more ethnic groups it has, then the more likely it will have frequent revolutions and guerrilla war.”

From the research conclusions in the foregoing, the results of the five hypotheses being tested are presented on Table 4.15 below.

Table 4.15 Conclusion of Hypotheses testing

<u>Hypotheses</u>	<u>Results</u>
(1) Deprived economic well-being increases political violence	Not supported
(2) Less government repression increases political violence	Not supported
(3) More foreign trade increases political violence	Not supported
(4.1) Higher ethnic diversity increases political violence	Not supported
(4.2) Higher ethnic identity increase political violence	Supported
(5.1) Higher economic growth rate increases political violence	Not supported
(5.2) Higher urbanization rate increases political violence	Supported (weak)
(5.3) Higher literacy rate increases political violence	Supported (weak)

**Chapter V**  
**Regime Regressiveness and Political Violence:**  
**Rational Choice Theory**

**The Inverted U-curve Theory**

One of the important factors affecting levels of political violence is regime repression of individual political and civil rights (hereafter labeled “regime repression”). According to rational choice theory, an individual will consider the costs and benefits of participating in political violence first and then decide if he should participate in it or not. The costs of participating in political violence will depend on the nature of political system and on the behavior of the government in responding to protest or dissent. If the costs of participating in political violence are high, or if there are other political actions (peaceful strategies) available which may be also effective, then the rational individual will not participate in political violence. Therefore, political variables (government response) also play an important role in the causes of political violence.

The inverted U-curve relationship between regime repression and levels of political violence is supported by several researchers (Muller 1985, Muller and Seligson 1987, Boswell and Dixon 1990, Muller and Weede 1990). They argue that with high levels of regime repression the individual will be deterred from participating in political violence because of the high costs. With a low level of regime repression, the costs of participating in political violence are low but at the

same time the peaceful political actions are easier and also effective. People will not choose violent political actions. In a semi-repressive political system, resource mobilization is possible and peaceful political action typically is not effective. Therefore, higher levels of political violence would be expected in a semi-repressive political system. The inverted U-curve argument basically comes from the resource mobilization theory of social movements. In a semi-repressive regime, all resources are easier to access and accumulate, such as money, communications, organizations.

Muller and Weede's (1990) research specially sought to test the rational action approach but their research did not take into consideration the issue of free-riders. They argue that the free-riding issue is not testable with macro-cross-national data and they prefer empirical tests of rational choice theory with available data (p.628-629). But free-riding is a central issue in studying collective political violence. Consider the following theoretical arguments why an individual should not participate in political violence:

### Defining Rational Choice Theory

Monroe (1991, p.78) lists seven assumptions of rational choice theory:

- (1) Actors pursue goals.
- (2) These goals reflect each actor's perceived self-interest.
- (3) Behavior results from conscious choice.

- (4) The individual is the basic actor in society.
- (5) Actors have preferences ordering that are consistent and stable.
- (6) If given options, actors choose the alternative with the highest expected utility.
- (7) Actors possess extensive information on both the available alternatives and the likely consequences of their choices.

Two most important assumptions are self-interest and structure of preferences.

When an individual faces several options, he will choose the one which serves him the best. This is called utility maximization. An individual is expected to be able to list available options in ranked-order; he is able to tell which option he prefers or not prefers according to the utility maximization principle.

An individual is rational only when he efficiently employs the means available to pursue his ends (Green and Shapiro 1994, p.17-18). This is called being “thin-rational.” In contrast, being “thick-rational” includes more; an individual is rational in choosing the best option after he considers his preferences and beliefs. “His preferences and his beliefs” are difficult to define and they can be expanded so that all choices being taken are judged to be rational because of individuals’ preferences and beliefs. Green and Shapiro (p.29) criticize the rational choice theory in explaining political behavior as often leading to tautology and specious explanations: When utility maximization fails to explain some “non self-interested behavior,” rational choice theorists typically would move to imperfect information models as the



first line of defense. E.g. Those who give to charitable causes do so unaware that the contribution does not reduce one's tax liability in direct proportion. If this line of defense also fails, the next step turns to "thick-rational" appeals to "personal preferences and beliefs" other than self-interest. E.g. People give money to charities because of the positive self-image this creates or because of sense "psychic sense of satisfaction." These kinds of argument and theory are not falsifiable. In scientific research, unfalsifiable argument and theory can not be taken as plausible or adequate theory. Therefore, political violence behavior here will only consider the "thin-rational" form of rational choice model as a base of analysis.

### The Prisoners' Dilemma

The best way to illustrate the individual rational decision making paradigm is through the famous Prisoners' Dilemma (Wickham-Jones 1995, p.250-251). Two prisoners who are accomplices in a crime are separated and each of them is offered the following "deal": Be the first one to incriminate the other fellow and authorities would defer charges against you in order to convict the other. The same offer is being made to the other prisoner unknown to the first prisoner. Even if both prisoners had earlier resolved and promised each other not to inform on each other, not knowing the other prisoner's decision, an individual would rationally choose to "confess" to protect himself first. Similar to Prisoners' Dilemma, an individual decision to

participate in political violence can be demonstrated with a 2 by 2 figure as Table 5.1:

Table 5.1 Preferences for the Participants

		All other participants' decisions	
		<u>Participate</u>	<u>Don't participate</u>
Individual decision	<u>Participate</u>	second best	third best
	<u>Not participate</u>	best	worst

In the preceding Table, similar to the Prisoners' Dilemma, an individual could evaluate rationally the costs and benefits of his decision to participate in political violence in the following formula:

$$D = B(p) - C + F$$

D – individual decision to participate

B – benefits of desire outcome

p – probability of desire outcome

C – costs to participate

F – individual's beliefs, feeling or pleasure to participate

An individual's feeling, pleasure, or fun to participate political violence is difficult to determine *a priori*. Social cultural background or even personal preferences could affect whether an individual would decide to participate or not. If considering personal factors like this, rational choice theory could explain all behaviors it would

become meaningless. Monroe (1991, p.80) stated that rational choice theory ignores the limitations on individual choice by culture, such as habit, tradition, and norms imposed by society. Therefore, considering only costs and benefits is more practical. The available options are ranked-order by an individual according to a 2 by 2 Prisoners' Dilemma format:

- 1) **Best Choice:** an individual obtains the desired outcome without participating (benefits without costs).
- 2) **Second Best Choice :** an individual obtains the desired outcome with participation (benefits with costs)
- 3) **Third Best Choice:** an individual does not obtain the desired outcome and does not participate (no benefits, no costs)
- 4) **Worst Choice:** an individual participates but does not obtain the desired outcome (no benefits with costs).

In a standard Prisoners' Dilemma, an individual only has to figure out if the other prisoner (only one) will confess or not. It is logical to say that the two prisoners' situation is relatively simple. However, in deciding whether to participate in political violence, an individual has to figure out whether the other participants (many) will participate or not. Under this situation, he encounters much more possible variations—only he participates; or a very small group of people participates, or a large group of people participates. The costs might be very high or very low— he might lose his life, he might spend several years in jail, he might be physically hurt, he might come through it unharmed alright. The outcomes of political violence are not controlled by him; his decision to participate in political violence would influence

the outcome minimally. The benefits are universal (not a selective incentive) and it does not matter if one individual (in this case, he) participates or not. After considering these factors—costs, benefits, and possibility of success, a rational individual would “not” choose to participate in political violence.

### **Behaviors Rational Choice Theory Cannot Explain**

Another theory that can be used to argue that any given individual would not participate in political violence is Maslow’s need theory. Maslow (1945) suggests that humans have a hierarchy of goals or basic needs that they try to satisfy with ‘higher’ needs coming into play after the ‘lower’ ones are fulfilled. These needs are, in sequence from low to high, biological needs, safety, love, esteem, and self-actualization. An individual will not pay possibly very high costs to participate in political violence which would not make much of a difference with or without his participation. Therefore, in the perspective of individual decision, political violence behavior is not rational at all. In addition, according to Maslow’s hierarchy of needs theory, people would be concerned only if the material welfare of their own, their love ones, or friends were at state. In this regard, an individual’s political violence behavior is not rational either.

The counter argument that an individual’s rational decision would lead him not to participate in political violence, is that the individual behavior of casting a vote or

of purchasing a lottery ticket are also easily regarded as non-rational behavior. In response it could be argued that voting behavior and purchasing lottery tickets are much more rational behaviors than participating in political violence. In voting behavior, Schwartz (1987, p.104-105) asserts that casting a vote offers selective incentives to an individual. These include benefits such as patronage, opportunities to have input on local issues and initiatives, and more influence and access to public decision-making processes. Schwartz's assertions may be correct but he overestimates people's political efficacy. Most of his asserted benefits are universal; with or without the one individual voting, the benefits would still be available for everybody. In another article by Aldrich (1993, 261), he argues that the decision to vote is characteristically a "low cost, low benefits" affair; and that voting behavior thus falls outside the boundary of rational choice. Aldrich's argument that voting behavior is a "low cost, low benefit" is right. But being "low cost, low benefit" does not mean that voting behavior falls outside the boundary of rational choice behavior. Low cost means having nothing to lose and so some might say, why not do it? Casting a vote does cost much at all, and for many people it is regarded as fun and, for several people it is regarded as their personal duty as a citizen. Each voter knows that his or her individual vote has a very low probability of affecting the election's outcome but the personal reward is sufficient.

In purchasing a lottery ticket, all purchasers understand that their chance of

winning the lottery is slim. But the cost is very low and it is also regarded as fun. Spending the one-dollar would not change an individual's life at all. Why not spend one dollar and wait to see if he has a surprise or not?

In contrast with the very high probability of paying a heavy cost for participating in political violence the characteristics of voting and purchasing lottery is relatively low cost. Therefore, "low cost" behavior and "high cost" behavior are different in their outcomes. With respect to costs, very high cost political violence is really difficult to be viewed as rational behavior.

#### **Empirical Research of Rational Choice Theory in Political Violence**

In Muller and Weede's empirical research of 1990, regime repression is represented by Gastil's rating of political and civil rights indexes from World Hand Book. (1983), the same as this research. In order to prove the inverted U-curve relationship between regime repression and political violence, they separate the one-to-seven index into three groups in the following:

- (1) low repressive – 1.0 to 2.5
- (2) semi-repressive – 2.6 to 5.5
- (3) high repressive – 5.6 to 7.0

All countries in their research are grouped into low repressive, semi-repressive, and high repressive political systems. Their statistical analysis reports that in semi-repressive regimes, the levels of political violence are higher than those of low or high

repressive regimes and indirectly the inverted U-curve relationship is concluded. Therefore, rational choice theory appears to be confirmed in this case. However, two problems need to be considered in depth. The first problem is in the boundaries of these three groups—2.5 and 2.6, and 5.5 and 5.6. A lot of explanations are expected why these boundaries are arbitrarily-defined as they are: why not have the dividing lines at 2.9 and 3.0, and at 4.9 and 5.0? Muller and Weede do not provide a theoretical justification for an apparent finessing of the data. Arbitrarily separating the one-to-seven index into three groups of regime repressiveness may be described as “pedestrian methodological defects” (Green and Shapiro 1994, p.33). Green and Shapiro criticize the rational choice theorists for misapplying statistical techniques from time to time. Without very good explanation, researchers easily commit such defects in their analysis.

The second problem is the scatter plot. Do regime repression and political violence really have an inverted U-curve relationship? One way to test it is through visual examination of the scatter-plot graph. The figures in the next two pages (Figure 5.1 and 5.2) display the relationship between political violence and regime repression (in terms of political rights and civil rights indexes). The scatter plot of political death and political rights reveals that in higher repressive regimes, political violence is higher than in lower repressive regimes. In the scatter plot of political violence and civil rights, a rough inverted U-curve relationship seems to appear. But

Figure 5.1 The Relationship between Political Violence and Political Rights Index

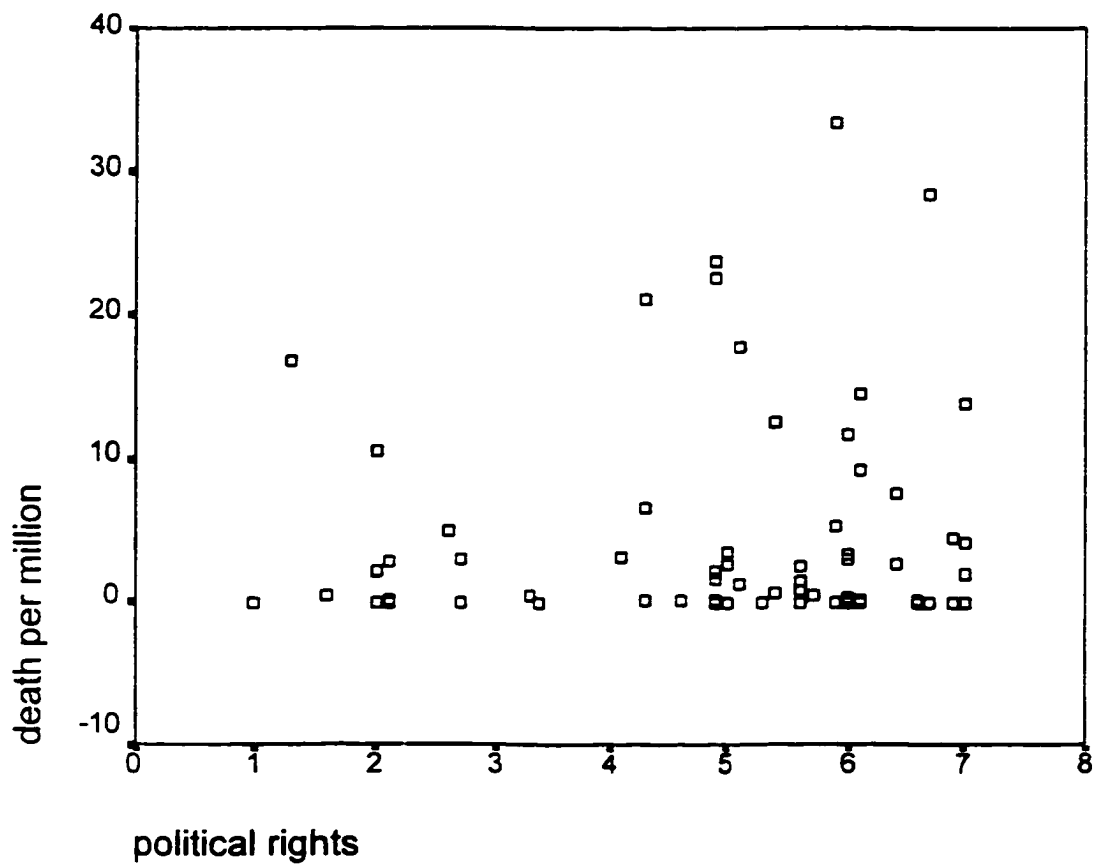
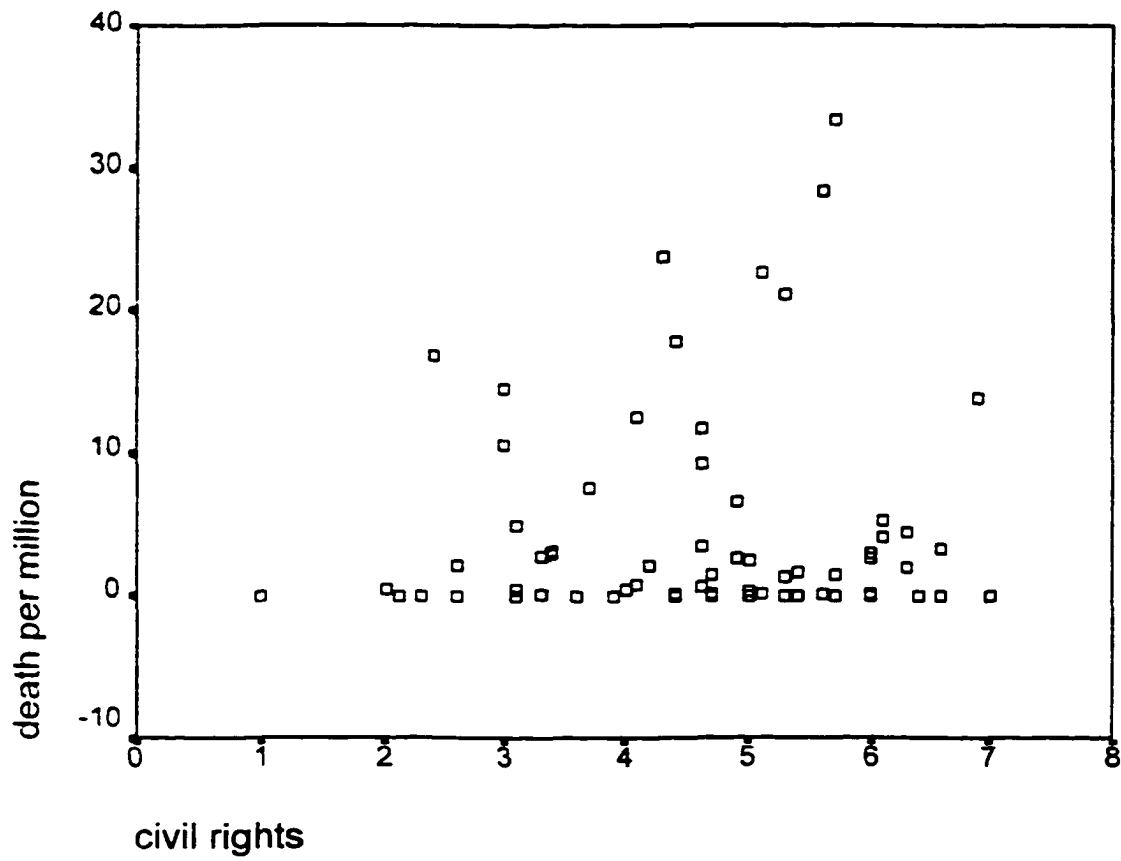




Figure 5.2 The Relationship between Political Violence and Civil Rights Index



in general, these two figures reveal that regimes that have less political and civil rights (higher repressive regimes) experience more political violence than regimes that have better political and civil rights records. Considering political and civil rights indexes as a key component of democracy, these two diagrams demonstrate that a nation-state with higher levels of democracy does experience less political violence. This finding is consistent with reports by Gurr (1993, periodical), Gurr and Moore (1997), Lindstrom and Moore (1995), and Dudley and Miller (group rebellion is negatively associated with democracy, 1998). If the political and civil rights indexes were divided into two categories, one being lower repressive regimes and the other being higher repressive regimes, then we could conclude that regime repression does affect levels of political violence. Lower repressive regimes do not experience higher political violence whereas higher repressive regime do experience more political violence. Therefore, from an examination of the scatter plot diagram it appears that the rational choice theory does not explain much about the incidence of political violence.

Why does political violence appear more in higher repressive regimes? Olzak (1998, p.205) provides an explanation, arguing that political and ethnic conflicts tend to appear in those nation-states whose institutional apparatus have been weakened due to frequent regime changes or shifts in political alliances, which often encourage political conflicts among groups. During the 1960s and 1970s, a lot of developing

countries in Asia, Africa, and Latin America were in a period of political instability in many cases most probably because some of them had just become independent and their political systems were young and unstable. However that higher levels of political violence would appear in regions with higher levels of political instability is a logical expectation with regard to these new independent states, and so Olzak did not provide much additional explanation in this regard. Generally speaking, having weakened institutional apparatus seems to be related to political development. Does a nation-state with a higher level of political development tend to have more stable and strong political institutions and thus experiences lower level of political violence? The relationships between political development, regime repression and political violence seems to offer more scope for future research.

## Chapter VI Political Violence in Sri Lanka

### Background Description

Sri Lanka is composed of diverse ethnic groups, religions, languages. The four major ethnic groups are the Sinhalese, Sri Lanka Tamils, Indian Tamils, and Muslims<sup>22</sup> (see Table 6.1 below). The most important ethnic groups related to Sri Lankan political violence for the past fifty years have been the Sinhalese and Sri Lanka Tamils. Therefore this section focuses on Sinhalese and Sri Lanka Tamils only.

Table 6.1. Ethnic Groups in Sri Lanka

<u>Ethnic group</u>	<u>%</u>	<u>Religion</u>	<u>Language</u>
Sinhalese	74.0	93% Buddhists	Sinhalese
Tamils		90% Hindus	Tamil
Sri Lankan	12.6		
Indian	5.5		
Moors	7.1	Muslim	Tamil
Others	0.8		
total pop=14,850,000	100.0%		

Source: Government of Sri Lanka, 1982. Total population in 1993: 17,620,000; the percentage of ethnic population is about the same.

<sup>22</sup> There are also more than ten ethnic groups such as Bohras, Sindhis, Gujaratis, Malayalees, Chinese, Dutch, Portuguese Burghers, Malays, Bharathas, and Colombo Ghettoes. These groups are very small number and are not politically mobilized.

The Sinhalese are the largest ethnic group. Sinhalese Buddhist ethnic consciousness is a powerful political force in post-colonial period. The Sinhalese language and Buddhism are the primary markers of the Sinhalese. The majority of Sinhalese considers Sri Lanka as an exclusively Sinhalese nation. Insofar as they believe that Sri Lanka belongs only to the Sinhalese they have excluded the non-Sinhalese from meaningful participation in politics or civil society. In post-colonial Sri Lanka, the Sinhalese have become highly mobilized as have the Tamils as well.

Most Sinhalese feel frustrated because they did not receive fair treatment during the colonial period. Before independence in 1948 the British did not pay much attention to the Sinhalese language or the Buddhist religion. The English language and culture were supreme then. After decolonization, the majority of the Sinhalese (74% of total population) took over political power and expressed their grievances over the colonial period. Buddhism and the Sinhalese language were given new prominence. Those of the Sinhalese ethnicity completely dominated employment in the public section. Their rectification policies inevitably impacted other ethnic groups especially Sri Lankan Tamils.

The Tamils of Sri Lanka<sup>23</sup> form the second largest ethnic group (12.6% of the total population). Most Tamils are Hindus. The Tamil language and culture are

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<sup>23</sup> Sri Lanka Tamils and Ceylon Tamils refer to the same group. After 1948 independence, the new state was called Ceylon. In 1972, the name was changed from Ceylon to Sri Lanka.

important elements of the Sri Lankan Tamil identity. Before and after independence in 1948, they were politically dominant in Sri Lanka society due to their English-speaking and professional education background. In the 1950s and 1960s, they were politically mobilized because of ethnic identity and Sinhalese rectification policies.

### Political Conflicts

#### (1) Colonial Policies Causing Political Conflicts

At the turn of this century, there existed an elite group of mission-school educated Christian Tamils in Jaffna and Colombo, who held privileged positions under the colonial government. Like many colonials, the British had a policy of “divide and rule”, thus favoring and patronizing a small minority group and elevating them above the majority (Sinhalese) as well as above ordinary Tamils and Muslims.

The Sri Lankan Tamils were the local minority chosen by the British to manage colonial affairs before independence in 1948. This was a rather effective means of colonial administrative control. This elite group became prominent political leaders in the early 20th century. They had been nurtured in the Christian-mission-schools set up mainly in Jaffna and Colombo for that very purpose. Many predominantly Sinhalese provinces had very few schools comparable to these schools.

The privileged position of the Sri Lankan Tamils in the colonial period helped

them take advantage of colonial preference policy by the British<sup>24</sup>. Their language capability and special skills learned from schools, plus the unfavorable environment of the northern peninsula, led many Tamils to migrate south and take a disproportionate percentage of jobs in Sinhalese majority regions. They were closely connected to the Western world of commerce, professional opportunity, and government service. Therefore they were found in disproportionately great numbers in the civil service, military and commercial establishments after independence in 1948.

As long as the British ruled the country, the favored groups of Tamils had no qualms about enjoying their privileged position. But with the impending departure of the British, they foresaw a grave threat to their privileges from the majority (non-English educated) Sinhalese. In contrast, the Sinhalese group felt relative deprivation due to their inferior position in Sri Lankan society. But after independence in 1948, the “rectification” of the majority Sinhalese also posed a threat to Sri Lankan Tamils. These policies are regarded as sources of relative deprivation for Tamils. Therefore, both the Tamils and Sinhalese claim separately that their respective group has been the victim of relative deprivation.

The Sinhalese and Tamils are differentiated by tradition, heritage, language,

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<sup>24</sup> Please read the history of Sinhala and Sri Lanka Tamil in From Culture to Ethnicity to Conflict: An Anthropological Perspective on International Ethnic Conflict. By Eller, Jack David. Chapter 3, p.95-142.

religion, and color. Their differences can be described as “primordial attachments” according to the analysis of Geertz (1963). Is their political conflict the outcome of primordial attachments? Bowen (1996, p.7) argued that they had little conflict before colonial rule. He further argues that English ruling before 1948 created a English-speaking elite consisting of the Tamils. The non-elite people spoke Sinhalese and were Buddhist. In order to promote themselves, Sinhalese identified themselves as members of a supposed “Aryan race.” The Sinhalese excluded Tamils from the schools and jobs after independence mainly by requiring competence in Sinhalese. Therefore, it was the colonial power who brought the original cause of political conflict in Sri Lanka<sup>25</sup>.

## (2) Uneven Distribution of Opportunities

In addition to colonial effects, Horowitz’s “backward” and “advanced” theory (1985, p.147-148) can also be used to explain political violence in Sri Lanka. The uneven distribution of economic and other opportunities created a “backward” Sinhalese group and an “advanced” Tamil group. Sri Lankan Tamils obtained a head start in the competition for the rewards of the modern world. They are more wealthy, better educated and tend to be envied, resented, and sometimes feared by the

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<sup>25</sup> Bowen also describes colonial influence on ethnic conflicts in Rwanda and Burundi. The colonial masters, the Belgians, gave the Tutsis privileged access to education and jobs. Another ethnic group, Hutu, resented the Tutsi’s privileged position and rebelled.



Sinhalese. In contrast, the “backward” Sinhalese live in the rural areas, and are disproportionately poor and uneducated. This is a typical case of unequal distribution of benefits of modernization.

Why were the Tamils “advanced” compared to the Sinhalese? Horowitz (151-155) lists several reasons to explain differential modernization. One reason is geographic location. The Tamils lived in the north and east of Sri Lanka. Their territories are close to India and foreign missionaries were easier to reach in the Tamil area. Therefore, some English-speaking schools were set up there by missionaries. The Tamils, due to their English language skills, were chosen by the British to manage colonial affairs. Generally speaking, the Tamils’ privileged position was not created on purpose by British but by natural geographic factors.

### (3) Competition for Resources

Competition for resources by both ethnic groups are exemplified in education, employment , and resettlement policies. Solomon West Ridgeway D. Bandaranaike won a closely contested election by appealing to Sinhalese chauvinism and Buddhist revivalism. He became prime minister and quickly introduced the Official Language Act of 1956. It declared Sinhalese the country’s official language. After Bandaranaike’s assassination in 1959, he was succeeded as prime minister by Sirimavo, his wife. Sirimavo continued pursuing her late husband’s policies of promoting Sinhalese and Buddhism. After promoting Sinhalese and restricting

Tamils accomplishments, Sinhalese-speakers became more prominent in the civil service. From 1956 to 1970, the proportions of Tamils employed by the government fell from 60% to 10%, from 30% to 5% in the administrative service, from 50% to 5% in the clerical service, and from 40% to 1% in the armed forces (Shastri 1997, p.146).

In 1972, Mrs. Bandaranaike's party, the United Front (UF), along with the Trotskyites and the communists, legislatively imposed strict quotas on Tamils in higher education. The number of Tamil-speakers students attending traditional multi-ethnic universities also fell dramatically. Tamils also were discriminated by Sinhalese in employment especially in public service. Government regulations prohibited the establishment of certain categories of industries outside the "Free Trade Zone," which is located around Colombo, in the Sinhalese region. Therefore, traditional Tamil areas, in northern and eastern Sri Lanka, did not have much growth of employment opportunities (Manogaran 1987, p.115-148).

Sri Lanka is a country with scarce resources. For the past fifty years, a growing population and relatively underdeveloped economy generated intense competition between ethnic groups, and between social classes for resources. Since 1950s, the Sinhalese-dominated government has encouraged landless Sinhalese people to settle in northern and eastern Sri Lanka, which were regarded by Tamils as their traditional areas (Senaratne 1997, p.25). This policy radically changed the demographic composition and incited hostility on the part of the Tamils. The Tamils

thought that the Sinhalese were invading and driving them out of their homeland. Thus population resettlement has become a cause of the Tamils' secessionist movements.

Competition for more resources for both groups was accentuated in post independence Sri Lanka. Olzak (1983, p.362) posits that ethnic mobilization will occur as groups come to compete in the same market. Since the Sinhalese, with their historically inferior position, felt a sense of relative deprivation and exploitation, in turn the Sinhalese-dominated government passed policies discriminating against Tamils in education and employment, in turn generating another reason for Tamils to have a sense of relative deprivation. Maghan (1979) believed that relative deprivation was a necessary condition for ethnic conflict. Both the Sinhalese and Tamil groups have expressed their grievances and each ethnic group has mobilized itself for competition. Maghan also mentioned the balance of power between ethnic groups as a source of conflict. Before independence, Tamils enjoyed a privileged position in society. After independence, the majority Sinhalese controlling political power posed a threat to the privileged position of the Tamils in Sri Lanka. Therefore, the changing balance of power between these ethnic groups has been the main reason of political violence in Sri Lanka. Under Sri Lanka's unitary form of parliamentary government and the unitary state structure of Sri Lanka there are no minority veto mechanisms or federalist national government-local state power-sharing arrangements

that would give the Tamils much opportunity for political participation or obtaining redress of grievances within what is nominally a democratic regime. Hence the Tamil recourse to political violence is better explained as being a political problem rather than as an ethnic conflict grounded in primordial “root causes.”

#### **(4) Modernization Factors**

In Table 8 of this research, the statistics clearly demonstrated that the modernization level is correlated with ethnic variables. In a word, higher modernization helps to reduce ethnic separatism and intensity and thus helps to reduce levels of political violence. Is this conclusion true in the case of Sri Lanka? The Tamils in the north and east of Sri Lanka are the strongest supporters of the secessionist movements. In contrast, the Tamils in the Colombo area (south and west of Sri Lanka) support a negotiated solution to the problems faced by Tamils (Senaratne 1997, p.78-79). As a matter of fact, more Tamils migrated to Colombo area with the escalation of the Tamil insurrection in 1980s and 1990s. This example illustrates that with more modern, urbanization, literacy, and economic opportunities in the metropolitan Colombo area, Tamils living there prefer negotiated solutions over political violence.

#### **(5) Political Factors**

Countries having two or more major ethnic groups are more likely to experience ethnic-based conflicts. The political system could reduce this kind of

conflict by forcing them to seek cooperation or consensus. Horowitz (1985, p.291-364) mentioned that in Malaysia the largest two ethnic groups, the Malays and Chinese, almost share nothing in common; their languages, religions, and life styles are all different. However these two groups have coexisted most of the time in a harmonious relationships except during the anti-Chinese riots in 1969. Horowitz further noted that the Malaysian political system encouraged multiethnic political coalition. The Malaysian political system forces Malays and Chinese leaders to seek the largest middle ground of support. Therefore, Malays and Chinese are more able to join in a common political coalition and more likely to support each other. In contrast, in Sri Lanka the majority Sinhalese dominated the government and established chauvinist nationalist movements in 1950s and 1960s by excluding the Tamils from all educational and employment opportunities. Finally both groups formed ethnically-based political parties and thus planted the seeds of political violence. Nigeria is another example of how political system arrangements can solve differences among ethnic groups. The political leaders of Nigeria cut the country into 19 states. Their boundaries subdivided the three largest ethnic groups (Hausa, Yoruba, and Igbo) into several states so that each state has to encourage multi-group coalitions for their members to obtain benefits for themselves through the state (Bowen 1996, p.12-13). The Malaysian and Nigerian examples demonstrate that political factors do play a large role to encouraging or mitigating political violence

between ethnic groups.

### Conclusion

The nature of Sri Lanka's political violence demonstrates that the persistence model cannot explain much. More than fifty years of political violence has occurred because no solution has been found but to conclude merely that violence breeds violence is a superficial analysis. The World-System model also is not directly related to political violence in Sri Lanka. It is clear ethnicity plays an important part of the conflict, but there is much more to it than just that. Little states (1999, p.47-48) that political violence in Sri Lanka is not immediately about ethnic, linguistic, and religious differences. Instead, the nationalism of the majority of Buddhist Sinhalese and the countervailing nationalism of the minority of Tamils has entangled each groups' respective religious and ethnic loyalties. Little's conclusion is still too narrow in seeking to explain Sri Lanka's violent modern history. In addition to group relative deprivation, competition for more resources such as higher education, more employment, and more land and water have contributed a lot to political violence. One more political factor of political violence is the failure of the Sri Lanka government to establish cooperation between ethnic groups through constitutional measures or the policies of everyday politics.

## Chapter VII Conclusions

Political violence research is very complex insofar as political, social, historical, and economic factors all claim a part in explaining its occurrence in the developing countries. This research has reviewed the most plausible theories and analyzed their strengths and weaknesses. The quantitative research analysis carried out in this study, which included correlation and multivariate analysis, was used to determine which of the existing theories of the causes of non-state political violence in developing nations is best supported by a cross-national time-series analysis. Among other variables this study also included the role of the government and of government repression in causing political violence and prompting individuals to join politically violent activities. During the post-Cold war era, the increasing salience of ethnic and religious nationalist-separatist issues has played an important role in political violence. This study also examined the role of ethnic variables in promoting political violence.

From the statistics of the correlation matrices, the multivariate regression analyses and theoretical analysis, it has been established that ethnicity, modernization, and relative deprivation are the most salient factors related to political violence. The stronger the ethnic intensity is, the more likely it is that a nation will experience political violence. The number of ethnic groups is related to political violence as well. In general, just having more ethnic groups would increase the possibility of

political violence, but those countries having many small ethnic groups would experience less political violence. The modernization variable of higher levels of modernization, such as higher urbanization, literacy, and economic growth rates, reduce ethnic intensity and accordingly reduce political violence. More foreign trade also decreases the likelihood of political violence. Considering the roles of ethnic group identification and of political, social, and economic discrimination, group relative deprivation appears to be a necessary condition for political violence in many countries.

Regarding regime repression as a factor, this research concludes that higher political violence does not generally occur in a semi-repressive regime but occurs more often in countries under more repressive regimes. In addition, after analyzing the benefits, the possible costs (punishment), and consequences, it was concluded that a rational individual would not ordinarily pursue or participate in political violence. These findings directly challenge the rational choice theory proposition that an individual will join in political violence against a semi-repressive regime because of available resources.

In the last section of this research, a short case study on Sri Lanka showed that although each nation-state is unique; some theories are generally applicable in explaining political violence while others are not. In Sri Lanka, the Tamils and Sinhalese differ in their respective languages and religions. While superficially it



may seem that political violence there is rooted in traditional cultural traits, in fact, it was found that the effect of colonial administration, relative deprivation, and competition for resources also contribute to political violence in Sri Lanka. One more factor relating to the incidence of political violence is the type of political system. A political system that requires multiethnic groups or multiple interest groups to seek coalition and consensus could reduce the occurrence of political violence. Sri Lanka failed to develop such a political system and thus ethnic groups produced their own respective exclusivist ethnically-based political parties. As each party sought a monopoly of political and economic interests for its exclusive group ostensibly democratic politics in Sri Lanka evolved into a zero-sum competition in which many members of the minority group felt compelled to resort to political violence to obtain their political goals.

Due to problems of data availability, the author could not overcome the problems of some missing value cases. While the data-set used here has also been criticized for its reliability and validity nonetheless the data-set used in this research is the most complete one. Once a more updated data-set is available, this research will merit replication and further verification by applying the same research methods to the more updated and complete data available. Since the single most salient factor relating to political violence are ethnic variables, a better cross-national survey of ethnic groups data is worth gathering which would present data on subnational groups

such as their percentage of the national population, their socio-economic characteristics, and their rates of political participation. A much more detailed dataset of ethnic groups would be better to test the accuracy of the contending theories of political violence. The second salient factor is modernization. Modernization and regime repression are highly related to political development. While this study has reached these general findings pertaining to the causes of political violence the relationships between political violence and political development admit of more detailed research and examination that are well worth exploring in future studies.

## Appendix A

### Data-Set in This Research

#### (1) Variable abbreviation and data

<b>country</b>	<b>country name</b>
<b>ethinten</b>	<b>ethnic intensity</b>
<b>ethsep</b>	<b>ethnic separatism</b>
<b>urban</b>	<b>urbanization rate</b>
<b>literacy</b>	<b>literacy rate</b>
<b>incmtp20</b>	<b>percentage income shared by the richest 20% population</b>
<b>landneq</b>	<b>land inequality index (Gini index)</b>
<b>tragdp75</b>	<b>trade as percentage of GDP in 1975</b>
<b>eco6577</b>	<b>average economic growth rate 1965-1977</b>
<b>prgt7377</b>	<b>average political rights index 1973-1977</b>
<b>crgt7377</b>	<b>average civil rights index 1973-1977</b>
<b>d_mil</b>	<b>actual death per million population 1975-1977</b>

#### (2) Following are actual data

	country	pop75	ethinten	ethsep	urban	literacy
1	afghanistan	19280	.	.	8.00	12.00
2	algeria	16792	4	15	13.00	35.00
3	bangladesh	73746	.	.	4.00	22.00
4	benin	3074	.	.	9.00	11.00
5	bhutan	1173	.	.	3.30	.
6	bolivia	5410	0	0	23.00	63.00
7	botswana	691	.	.	9.80	33.00
8	brazil	109730	0	0	39.00	66.00
9	burma	31240	4	30	10.00	67.00
10	burundi	3765	.	.	2.60	10.00
11	c.africa	1790	.	.	8.00	7.00
12	cameroon	6433	1	20	7.00	19.00
13	chile	10253	0	0	49.00	88.00
14	colombia	25890	0	0	40.00	81.00
15	comoros	306	.	.	15.30	58.00
16	congo	1345	.	.	35.60	50.00
17	costa rica	1994	0	0	23.00	88.00
18	dominican	5118	0	0	26.00	67.00
19	ecuador	7090	0	0	22.00	74.00
20	egypt	37543	0	0	34.00	44.00
21	el salvador	4108	0	0	9.00	62.00
22	gabon	521	.	.	27.60	12.00
23	gambia	509	.	.	16.00	6.00
24	ghana	9873	3	39	14.00	30.00
25	guatemala	6129	0	0	13.00	46.00
26	guinea	4416	.	.	11.00	9.00
27	guinea.bissa	525	.	.	19.00	5.00
28	guyana	791	.	.	23.00	87.00
29	haiti	4552	.	.	15.00	23.00
30	honduras	3037	.	.	16.00	57.00
31	india	613217	2	36	10.00	36.00
32	indonesia	136044	4	36	12.00	62.00
33	iran	32923	4	27	30.00	50.00
34	iraq	11067	4	18	33.00	24.00
35	ivory coast	4885	.	.	.	20.00
36	jamaica	2029	0	0	25.00	86.00
37	jordan	2688	4	40	38.00	59.00

	incmtp20	landineq	tragdp75	eco6577	prgt7377	crgt7377	d_mil
1	.	.	27.8	86.00	6.6	6.0	.05
2	.	72.1	74.1	337.00	6.1	6.0	.06
3	42.3	.	16.2	.	4.9	4.2	2.05
4	51.7	.	50.3	71.00	7.0	6.3	1.95
5	.	.	.	.	4.0	4.0	.
6	61.0	.	49.2	231.00	5.6	4.1	.74
7	60.3	59.8	.	.	2.1	3.1	.00
8	66.6	83.8	20.2	583.00	4.3	4.7	.03
9	.	.	11.3	78.00	6.7	5.6	28.46
10	.	.	23.2	220.00	7.0	6.4	.00
11	.	37.2	24.6	13.00	7.0	7.0	.00
12	.	44.5	51.1	302.00	6.1	4.4	.00
13	51.4	.	31.5	44.00	6.0	4.6	11.70
14	59.5	86.0	21.7	309.00	2.0	2.6	2.09
15	.	.	32.9	.	.	.	.
16	.	28.9	49.7	.	5.9	6.1	5.20
17	54.8	82.5	62.8	335.00	1.0	1.0	.00
18	.	82.0	49.2	473.00	3.4	2.1	.00
19	72.0	82.1	44.0	380.00	6.4	3.7	7.62
20	48.4	67.0	54.0	211.00	5.6	4.7	1.44
21	50.8	81.0	60.7	146.00	2.6	3.1	4.87
22	67.5	47.5	102.1	.	6.0	6.0	.00
23	.	.	121.1	.	2.0	2.0	.
24	47.8	55.0	26.7	-101.00	6.6	5.1	.10
25	58.8	82.0	37.8	306.00	3.3	3.1	.49
26	.	.	.	151.00	7.0	7.0	.00
27	.	.	62.9	.	6.0	6.0	.
28	.	.	176.2	.	3.4	2.6	.00
29	.	47.0	23.5	70.00	6.4	6.0	2.64
30	67.8	78.1	66.4	151.00	6.1	3.0	14.49
31	48.9	64.0	12.5	145.00	2.1	3.3	.11
32	52.0	56.0	40.8	446.00	5.0	5.0	.00
33	.	63.0	55.0	766.00	5.6	5.7	1.40
34	66.9	64.6	89.9	388.00	7.0	6.9	13.82
35	58.5	42.2	63.6	282.00	6.0	5.4	.00
36	61.2	79.8	85.4	42.00	1.3	2.4	16.76
37	.	.	71.3	151.00	6.0	6.0	2.98

	country	pop75	ethinten	ethsep	urban	literacy
38	kenya	13251	2	43	8.00	40.00
39	kuwait	1085	.	.	44.00	60.00
40	lesotho	1148	.	.	9.50	40.00
41	liberia	1708	.	.	28.20	9.00
42	libya	2255	.	.	42.00	45.00
43	madagascar	8020	4	15	6.00	50.00
44	malawi	4909	.	.	4.00	25.00
45	malaysia	12093	2	46	12.00	59.00
46	mali	5697	.	.	7.00	10.00
47	mauntania	1283	.	.	9.00	17.00
48	mauntius	899	.	.	17.00	61.00
49	mexico	59204	0	0	33.00	74.00
50	morocco	17504	2	26	35.00	21.00
51	mozambique	9223	.	.	5.00	11.00
52	nepal	12572	.	.	1.00	19.00
53	new guinea	2714	.	.	4.00	32.00
54	nicaragua	2318	0	0	21.00	57.00
55	niger	4600	.	.	3.00	8.00
56	nigena	63049	4	94	11.00	15.00
57	pakistan	70560	3	5	17.00	21.00
58	panama	1678	0	0	33.00	78.00
59	paraguay	2647	0	0	22.00	80.00
60	peru	15326	0	0	30.00	72.00
61	philippines	44437	4	4	15.00	83.00
62	puerto rico	2902	0	0	37.00	88.00
63	rwanda	4233	.	.	3.60	23.00
64	s.africa	24663	3	33	20.00	57.00
65	s.korea	34663	0	0	46.00	88.00
66	saudi arabia	8966	.	.	26.00	3.00
67	senegal	4418	.	.	20.00	10.00
68	sierra leone	2983	.	.	8.00	15.00
69	singapore	2248	0	0	100.00	69.00
70	somalia	3170	.	.	8.00	50.00
71	sn lanka	13986	2	10	7.00	78.00
72	sudan	18268	4	26	5.00	20.00
73	suriname	422	.	.	45.50	84.00
74	syna	7259	2	6	34.00	40.00

	incmtp20	landineq	tragdp75	eco6577	prgt7377	crgt7377	d_mil
38	66.9	67.0	48.1	301.00	5.0	4.6	3.47
39	.	76.4	75.8	.	4.9	3.6	.00
40	.	39.0	.	.	5.3	3.9	.00
41	.	73.0	113.3	279.00	6.0	4.3	.
42	.	70.0	76.9	209.00	6.9	6.3	4.43
43	60.1	.	38.4	-23.00	5.1	4.4	17.83
44	52.9	36.3	59.1	300.00	6.9	6.0	.00
45	56.6	47.0	79.1	410.00	2.7	3.4	2.98
46	.	48.0	42.8	131.00	7.0	6.6	.00
47	.	.	79.8	204.00	5.9	6.0	.00
48	.	.	116.7	.	2.7	2.3	.00
49	54.4	77.0	14.9	202.00	4.1	3.4	3.02
50	.	.	52.3	285.00	4.6	4.4	.06
51	.	.	37.7	.	.	.	43.37
52	59.2	56.0	20.2	32.00	6.0	5.0	.32
53	.	.	73.9	239.00	.	.	.00
54	60.0	80.0	56.5	155.00	4.9	4.3	23.73
55	.	.	32.2	-161.00	6.7	6.0	.00
56	.	.	54.8	384.00	5.7	4.0	.48
57	41.5	51.8	28.3	204.00	4.3	4.9	6.60
58	47.4	78.0	55.9	233.00	6.6	5.7	.00
59	.	.	24.6	318.00	4.9	5.4	1.51
60	61.0	91.0	36.7	129.00	6.1	4.6	9.27
61	53.9	51.0	38.1	284.00	4.9	5.1	22.68
62	50.4	78.0	.	.	.	.	1.03
63	.	.	32.1	319.00	6.9	5.3	.00
64	62.0	70.0	37.5	132.00	4.3	5.3	21.04
65	45.3	37.2	62.2	866.00	4.9	5.6	.17
66	.	78.0	101.9	799.00	6.0	6.0	.11
67	62.5	.	57.6	-25.00	5.6	4.4	.00
68	52.5	45.8	51.8	29.00	5.6	5.0	2.35
69	.	30.0	245.2	830.00	5.0	5.0	.00
70	.	.	73.8	16.00	7.0	6.4	.00
71	43.4	67.0	51.7	204.00	2.0	3.0	10.51
72	49.8	.	33.7	33.00	5.9	5.7	33.39
73	42.0	72.6	107.8	.	.	.	.
74	.	67.0	48.7	230.00	6.0	6.6	3.17

	country	pop75	ethinten	ethsep	urban	literacy
75	taiwan	16453	0	0	.	.
76	tanzania	15388	1	3	3.00	66.00
77	thailand	42093	3	3	11.00	79.00
78	togo	2248	.	.	8.00	16.00
79	trinidad	1009	.	.	43.30	92.00
80	tunisia	5747	0	0	18.00	55.00
81	turkey	39882	2	9	6.00	60.00
82	uruguay	3108	0	0	38.00	94.00
83	venezuela	12213	0	0	50.00	82.00
84	yemen.aden	1660	.	.	18.00	27.00
85	yemen.sana	6668	.	.	3.00	27.00
86	zaire	24450	2	74	21.00	31.00
87	zambia	5004	2	10	36.00	39.00



	incmtp20	landineq	tragdp75	eco6577	prgt7377	crgt7377	d_mil
75	39.2	46.0	.	607.00	5.6	4.7	.00
76	55.7	45.0	46.3	266.00	6.0	6.0	.00
77	57.5	46.0	38.7	456.00	5.4	4.1	12.45
78	.	52.0	53.6	253.00	7.0	5.7	.00
79	50.0	69.0	148.8	149.00	2.0	2.1	.00
80	55.5	.	55.7	486.00	6.0	5.0	.00
81	56.5	59.0	16.8	463.00	2.1	3.3	2.81
82	47.5	82.6	26.1	109.00	5.1	5.3	1.29
83	54.0	95.6	51.7	291.00	1.6	2.0	.49
84	.	.	121.7	.	7.0	7.0	.00
85	.	.	25.2	.	5.4	4.6	.60
86	.	88.3	51.9	-11.00	7.0	6.1	4.09
87	58.2	75.7	83.6	-43.00	5.0	4.9	2.60

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