

THE ECONOMIC AND POLITICAL DETERMINANTS OF PUBLIC PROTEST FREQUENCY AND MAGNITUDE: THE ISRAELI EXPERIENCE

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Most previous work on the determinants of public protest and turmoil suffer from two deficiencies: incomplete data base and lack of issue specificity. The present study, using a local source and differentiating between political, economic, religious, and social protest in Israel, attempts through multiple regression analysis to determine the economic and political factors underlying such extra-parliamentary activity—from the standpoint of frequency and magnitude. The findings lend some support to relative deprivation as a causal factor, but political factors (election periods, wars, government size) strongly contribute as well to frequency of protest—especially on social and political issues. Protest magnitude in general is much more weakly correlated to all variables, and in most cases in a direction opposite to that of frequency. Of all the variables, however, it is inflation which exhibits the most consistent effect upon most protest issues.

1. INTRODUCTION

The timing of public protest outbursts is a subject which has interested scholars at least since the days of De Tocqueville and Marx. In great part due to their leading example, the analysis has tended to focus on

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the social and especially the economic factors underlying such unconventional political behavior—with good reason. Most such studies, especially the more recent statistically-based ones, have found significant correlations between socioeconomic indices and public protest.

In analyzing the underlying causes of the French Revolution, De Tocqueville noted that the greatest dissatisfaction manifested itself ironically in those areas and among those sectors which had seen a sharp economic *improvement* in the 1780s. He concluded that the public remains quiescent as long as it has no expectations for future advancement, but that once progress begins any downturn is likely to lead to protest and ultimately revolution (1955:177). Marx, as need hardly be mentioned, based his theory of revolution on the opposite premise: the capitalist system inexorably worsens the lot of the masses and it is the expectation of a continuing *downward* spiral which ultimately leads to upheaval.

More contemporarily, Olson advanced a thesis indirectly supported both De Tocqueville and Marx. He argued that economic *growth* may paradoxically increase the number of those who become poor and/or dissatisfied. While the country's average income is rising quickly the median income may drop as a result of an unequal division of the expanding economic pie. And even if the majority of the public enjoys rising income many or even most may lose out in relative terms. This is especially true when rapid growth is accompanied by high inflation. Thus, the phenomenon of rapid economic growth can cause economic class disruption as well as the breakdown of traditional institutions and behavior patterns—all leading to socio-political instability (1963:529-52).

Ladd has recently reinforced at least one aspect of Olson's argument by showing how high inflation leads to an arbitrary redistribution of income at the expense of the lower and middle classes. These in turn become disenchanted with the lack of "fairness" in their system (economic and political), leading to the eventual collapse of such systems (1981:48-56).

Davies, more explicitly, has tried to bridge the De Tocqueville-Marx gap with his ingenious J-curve theory which postulated that serious political turmoil results from long-term steadily improving economic conditions followed by a sudden, sharp decline in the economic situation (1962:5-19). Others agree with this discontinuity theory but reverse the argument. The Feierabends and Nesvold suggest that a long history of no improvement followed by sudden expectations of improvement which, however, does not occur in reality, may lead to political upheaval (1972:111).

Despite the differences in nuance and substance, there is a common thread which runs through all these theories—relative deprivation. Whether

relative to other groups or relative to expectations for one's own group, political turmoil and/or revolution are not only a direct result of objective circumstances but also may indirectly come about due to the actors' negative interpretation of their present and likely future economic situation.

As a result, serious research efforts have recently been applied to the question of relative deprivation and its effect on political stability. Unarguably, one of the central personalities is Gurr whose work over the past fifteen years has done much to sharpen the issue. He found that "a crossnational study shows that for 114 nations in the early 1960s a composite measure of short-term economic deprivation correlates .44 with magnitude of civil strife. In other words about 20 per cent of the variation among contemporary nations in levels of strife is attributable to relative economic decline" (1970:133).

Unfortunately, other statistical studies found no such correlation. For example, Miller *et al* discovered that economic *ambiguity and inconsistency*, and not relative deprivation, were the factors behind the American Black riots of the 1960s (1977:980). Indeed, the authors brought out a rather critical point. Economic indicators rarely move in the same direction all at once, and certainly not at the same pace. Thus, even the terms "economic growth" or "economic decline" can be misleading and must be defined carefully. It was precisely the multidirectionality of the American sundry economic indicators which underlay the Blacks' frustration and riotous behavior.

In light of this latter consideration the present study was designed to test the various economic indicators and—through multiple regression analysis isolate those with a significant correlation to public protest.

2. METHODOLOGY AND HYPOTHESES

The use of newspaper reports constitutes the generally accepted mode for gathering data on protest and socially disruptive events. Unfortunately, virtually all the aforementioned studies suffer from a serious methodological problem: an unsatisfactory data base.

Since the vast majority of such empirical works are cross-national in scope (Feierabends, 1966; Tanter, 1966; Hibbs, 1973; etc.), they have had to use sources which are international in scope. The primary source for almost all these studies is *The New York Times*, with secondary (control) sources being regional journals (e.g. *Asian Recorder: Middle East Journal, Africa Digest*, etc.), or general purpose research volumes (e.g. *Facts on File, Encyclopedia Britannica Yearbooks*, etc.). While these cover almost all the major political demonstrations of the various nations, they do not even attempt to report the more mundane but far more prevalent lower-key protest found in most societies. As Taylor

and Hudson admit at the end of their otherwise impressive project: "A local newspaper from each country as a second source would have been ideal, but problems of language and time made this choice impractical" (1972; see too Gurr; 1968). The resulting substantial undercounting, however, may have led to the far more serious problem of invalid conclusions (Azar, 1972).

The present study, therefore, is based on a "local" newspaper—*The Jerusalem Post*—and is national (not cross-national) in scope (Lehman-Wilzig, 1981). As an indication of the sort of reporting differences which are found between the two types of newspaper we need only indicate that while the Taylor and Hudson survey counted *twenty-five* protest demonstrations in Israel for the years 1960-1967, our project counted *two hundred and twenty-eight*! It is our impression that only after several in-depth national studies are undertaken (which take into account all the events which actually occurred) can one say anything meaningful about *cross-national* patterns of protest and their causes.

While the gross number of protest events gives a good picture of political turmoil, by itself it does not completely indicate the degree to which the political system is being threatened or the level of public dissatisfaction. The latter can never be completely accounted for since such "protest" mechanisms as the petition are not amenable to discovery/recovery well after the fact, while others (e.g., records of telegrams, phone calls to politicians, etc.) are not always logged by the authorities. Nevertheless, other indicators can be added to the protest profile. Sorokin (1937) and Ourr (1970), for example, have attempted to measure the *magnitude* of protest. Our "Index of Magnitude" (IM) comprises the protest events' level of intensity and size (number of participants), but due to the relatively low intensity level of Israeli protest (almost no one is killed or even seriously wounded during such protest events) we discarded their "body count" scale and substituted a more refined "intensity" index. For intensity the following scores were given: peaceful (1), disruptive/obstructive (2), violence vs. property (3), violence vs. people (4), general riot (5). The scores for participation are: 10-99 (1), 100-999 (2), 1000-9,999 (3), and 10,000+ (4). We did not include duration since the information on this variable was not available in one-third of the cases, and another sixth were forcibly dispersed by the police before their "natural" end.

Finally and perhaps most significantly, previous studies have made little effort to analyze the general issue areas of public protest. By concluding that correlations may exist between economic conditions and public protest we still do not know if such protest is based on economic concerns or other issues not obviously connected to economic problems. Corcione and Thornton, whose study dealt with the economic deter-

inants of *strike* activity, noted that "a study of aggregate conflict contributes little to our understanding of conflict in specific industries" (1981:15). Here in our case the question becomes whether the economic variables influence only economic protest, or is there a spillover effect on other related or even non-related topics, e.g. social, political, and religious issues. In order to answer this crucial question we coded each protest event according to its issue: political, economic, religious (a central problem in Israel); or social. The results are found in Table 1.

TABLE 1 NUMBER OF PROTEST EVENTS IN ISRAEL, 1950-1979

Year	Social Protest	Religious Protest	Economic Protest	Political Protest	Total Protest
1950	16	7	33	14	70
1951	18	0	25	7	50
1952	17	1	11	6	35
1953	12	4	24	6	46
1954	16	15	21	4	56
1955	2	9	11	2	24
1956	7	11	12	4	34
1957	9	2	5	7	33
1958	9	19	4	4	36
1959	16	2	6	2	26
1960	14	2	7	3	26
1961	5	8	12	13	38
1962	8	4	12	3	27
1963	14	22	4	12	52
1964	12	7	6	11	36
1965	19	11	2	15	47
1966	19	12	27	18	76
1967	15	8	10	9	42
1968	14	6	2	20	42
1969	12	4	3	26	45
1970	13	8	8	27	56
1971	65	31	13	25	134
1972	71	12	13	26	122
1973	46	7	15	35	103
1974	46	5	22	59	132
1975	61	13	17	59	150
1976	43	9	35	32	119
1977	56	8	9	29	102
1978	33	12	13	48	112
1979	116	33	33	59	241
Total	810	292	415	585	2102
Percentage	38.5%	13.9%	19.7%	27.8%	100%

Insofar as the independent variables are concerned we chose a number of key economic and political/environmental indicators which others have either claimed or found to be relevant (Sundaram, 1974; Galin and Mevorach, 1981 and 1982). The initial regression runs took into account all these independent variables, and then we discarded—through the use of a stepwise regression program, with an inclusion level of .15, using the F test (Johnston, 1963:126)—those which exhibited no significant correlation with protest and which did not contribute to the unexplained variance. Next, all regressions were re-run, using the Cochran-Orcutt transformation method for adjusting for first-order autocorrelation.

Economic indicators

We first chose a number of economic variables which indicate the level of economic activity. One such variable is unemployment (UN)—the number of those out of work as a percentage of the entire civilian work force. Another is the economy's growth rate. Here two alternative measures were used: the growth rate of the real wage rate (GW), and the growth rate of real GNP per capita (GY). The latter exhibited higher significance and will be reported on in our tables.

Second, we included a number of variables which express the level of private welfare: real national income per capita (NI); real GNP per capita (Y); and real private consumption per capita (C). Of the three, Y proved most significant statistically and it is this measure which we will report on henceforth.

Third, we attempted to find a quantitative expression for objective relative deprivation among the lower classes, in the absence of the Gini index (or other indices which reflect the degree of unequal income distribution) over the full period of investigation. Therefore we tried several surrogate variables. Thus, we included total salaries and wages as a percentage of net private income (W/PI), which reflects the functional distribution of income between wage earners on the one hand and total income on the other. In addition, we used a number of tax indicators which could also indicate changes in net income distribution patterns under the progressive taxation system existing in Israel. Two proved to be statistically significant: the sum or direct taxes (including social security benefits) as a percentage of net private income (T1); and collected income tax as a percentage of national income (T2). While the results of these two were similar, the latter proved to be more significant statistically and so we shall report on it in our findings.

Fourth, inflation—the annual percent change in the consumer price index (P)—was included as an economic indicator especially relevant to Israel which has had several periods of very high inflation. Most pre-

TABLE 2 REGRESSION EQUATION FOR THE FREQUENCY OF PROTEST EVENTS*

		Social Protest	Religious Protest	Economic Protest	Political Protest	Total Protest
Inflation	P	0.548 (6.182)		0.363 (5.297)	0.517 (6.097)	1.079 (6.632)
Unemployment	UN	6.194 (3.951)	1.280 (2.195)	2.569 (3.398)		10.229 (3.641)
Growth Rate of GNP Per Capita	GY	1.273 (3.097)	0.963 (5.009)	0.654 (2.256)	0.914 (3.658)	2.388 (2.192)
GNP Per Capita	Y	9.102 (7.157)	1.489 (4.770)	1.902 (2.810)	3.162 (4.796)	14.251 (6.020)
Wages as a % of Income	W/PI	-1.985 (-2.299)		-1.018 (-1.841)		-3.757 (-2.593)
Tax Rate	T	-3.659 (-3.639)		-1.447 (-1.899)	-1.840 (-2.363)	-4.355 (-2.389)
Election Year	E	-12.822 (-2.950)	-12,856 (-5.471)			-30.249 (-3.611)
Post-Election Year	E+1	-9.601 (-2.076)				
Government Size	G SIZE	-4.678 (-3.882)	-1.721 (-3.488)		1.682 (2.342)	-5.846 (-2.624)
Post-War Year	W+1	-12.728 (-2.106)	-5.155 (-1.660)	-8.792 (-1.984)	-7.124 (1.850)	-22.158 (1.917)
Constant		100.079 (2.133)	11.791 (2.149)	42.642 (1.458)	-46.188 (-1.674)	168.330 (2.077)
R ²		0.893	0.595	0.465	0.909	0.893
D.W.		1.893	2.261	2.272	2.032	1.879

*The t-values appear in parentheses beneath the coefficients.

The R² is the coefficient of determination, adjusted for degrees of freedom.

D.W. is the Durbin-Watson statistic for the degree of autocorrelation. All the equations were run using the Cochran-Orcutt transformation technique for autocorrelation.

vious studies have found that inflation has a negative impact on economic efficiency, incentive to investment, on the fabric of society, and on the legitimacy of democratic institutions and laws in the eye of the public (Levi and Landskroner, 1979; Ladd, 1981; and Nelson, 1976; to name but a few).

Non-economic indicators:

Elsewhere, it was found that protest frequency in Israel tended to rise after election campaigns were over compared to the pre-election period, while magnitude declined and later rose sharply (Lehman-Wilzig,

1983). As a result, the periods surrounding the election were included here as a non-economic dummy variable: E-1 (the pre-election year), E (the year of elections), and E+1 (the post-election year).

In addition, as Galin and Mevorach found with regard to economic strike activity in Israel, *wars* had a tendency to dampen such public behavior (1981). Consequently, we included war years (W) and their successors (W+1) as additional dummy variables in our regression analysis.

Finally, we added the number of cabinet ministers within the government coalition (G SIZE) as a third dummy variable. Galin and Mevorach (1982) found that there existed a negative correlation between this variable and economic strikes: we felt that the same might hold true for public protest.

TABLE 3 REGRESSION EQUATIONS* FOR THE MAGNITUDE OF PROTEST EVENTS

		Social Protest	Religious Protest	Political Protest	Total Protest
Inflation	P	-0.007 (-1.673)	0.009 (2.946)	0.003 (0.762)	-0.004 (-2.914)
Unemployment	UN	-0.220 (-4.295)	0.136 (3.775)		-0.051 (-2.700)
Growth Rate of GNP Per Capita	GY	-0.060 (-3.013)			-0.024 (-4.152)
GNP Per Capita	Y	-0.138 (-2.988)		-0.061 (-2.391)	-0.071 (-3.935)
Tax Rate	T	0.100 (2.069)			0.063 (4.554)
Post-Election Year	E+1		0.434 (2.207)		
Government Size	G SIZE			-0.072 (-1.458)	-0.044 (-2.622)
Post-War Year	W+1	0.473 (1.628)	-0.744 (-2.822)		0.291 (3.189)
Constant		5.502 (10.663)	3.145 (14.499)	5.639 (8.305)	4.874 (28.464)
R ²		0.229	0.595	0.502	0.634
D.W.		2.125	2.528	2.061	2.109

*No variable met the 15% significance level for entry into the economic protest magnitude regression model.

**See Table 2 for methodological explanations.

Hypotheses:

In light of the several aforementioned contradictory theories with regard to the influence on public turmoil of income levels and changes we did not hypothesize *a priori* the effect of GY or Y on the frequency and magnitude of public protest events in Israel. However, we did hypothesize that unemployment would have a positive correlation with such protest, whereas W/PI and/or the tax indicator would be negatively correlated. Insofar as inflation is concerned, given the findings of previous studies we hypothesized that we would find a strong positive link between inflation and public protest.

On the non-economic variable front, our hypothesis was that the election year would be negatively correlated with public protest, for reasons outlined in the previous study. The same obviously was assumed for wars, since external crisis usually brings with it greater internal cohesion and solidarity.

The assumption with regard to government size was that we would find a negative correlation with protest, since the larger the government (in Israel usually a function of the number of coalition partners) the wider its representation of various political ideas and interests among the public at large. As a result, one would expect larger governments to more readily afford pressure groups *institutional* access to the power brokers, thereby weakening the need for extra-parliamentary behavior (i.e. protest).

This is perhaps the place to note the relevance of economic factors on non-economic public protest issues. As was mentioned earlier, social turmoil may not always manifest itself in demands for *economic* change but rather for *social* and *political* change (e.g. the French Revolution). More recently, the Khomeini Revolution in Iran illustrates how such protest may express itself in *religious* terms as well. Thus, public protest which at first glance has nothing to do with economic matters may indeed be linked to the general economic situation or specific economic indicators. We therefore hypothesized that "non-economic issue" protest will also correlate with the several economic variables (as well as the non-economic variables), but we did expect differences in the degree of such linkage among the four issue areas.

3. FINDINGS AND DISCUSSION

Tables 2 and 3 display the results of our regression analysis over the four issue areas (plus the overall total) relative to the *frequency* of protest events and their *magnitude*. The most outstanding feature of all the results taken together is that where significant correlations reveal themselves, in most cases they form a reverse image when comparing the *number* of protests and the *magnitude* of protest. This is especially

interesting given the fact that the partial correlations exhibit very low linkage between the *frequency* and the *magnitude* of protest: -0.23 for all protest ($.01$ for religious, $.05$ for social, and $.21$ for economic; only political protest showed a significant partial correlation between frequency and magnitude: -0.49). Thus, in Israel at least, economic and other variables by and large do not influence the frequency of protest in the same way as they influence the magnitude of such events, and the two must be differentiated for analytical purposes. This is much the same conclusion arrived at in studies on the effect of economic variables on strike activity in Israel (Galini and Mevorach, 1981).

The second noteworthy general finding is the relatively low R^2 of economic and religious protest frequency—almost half that of political and social protest. This was not unexpected in the case of religious protest (indeed, the fact that it reached even this level was somewhat of a surprise); but the low R^2 for economic protest calls for some explanation. Of probably minor importance was a problem in the categorization of economic protest. For example, protest on the issue of "housing" was classified as "social;" it could also have been categorized "economic." But since the vast majority of events which we classified "social" were over bona fide social issues (discrimination, education, crime, etc.), we do not think that this is the central reason for the relatively low correlation between the economic variables and economic protest.

The key probably lies in the fact that most economic demands are expressed over the bargaining table and—when such formal intercourse breaks down—through the medium of economic strike action. If inflation, for example, erodes purchasing power, then the public is most likely to first strike its employers for higher wages and only as a last resort to publicly demonstrate against the government's economic policies. Since economic strikes were not included in our study (it would have radically altered the protest number data and distorted the results) the lion's share of public "protest" activity on the economic front was left out—contributing significantly to the low R^2 of economic-issue protest.

The third striking general feature of the multiple regression results is the almost perfect identity between those variables correlating significantly with both social-issue protest and overall protest (all issues). Except for $E + 1$ which correlates negatively with social protest frequency (at a relatively low t -value of 2.076) and which does not appear in the overall protest frequency equation, and on the magnitude side the one case of G SIZE correlating negatively with total protests (-2.622 t -value) while not appearing to influence social protest, all other variables do (or do not) correlate similarly for social and overall protest—with

identical signs at all times. Given the fact that social protest constitutes the largest issue area of all Israeli protest (39.5%), this outcome is not totally surprising: it does indicate that social protest is the benchmark of Israeli protest in more ways than pure frequency of occurrence (the simple correlation between social and overall protest is 0.96).

On the specific variable level the two indicators of relative deprivation exhibited some correlation with protest. W/PI showed some significant negative link with economic and social protest frequency as was expected but not in an overly strong fashion (t -values -1.841 and -2.299). No significant correlations could be found between W/PI and protest magnitude for any of the issue areas. The tax rate variable did come across as more strongly linked to Israeli protest, but in a way which is somewhat problematical. On the protest frequency side significant negative correlations appeared for all issues except religious protest—just what one might expect since as T rises the rich pay proportionately more taxes due to Israel's highly graduated brackets. But on the magnitude side T was positively correlated with social (and overall) protest, suggesting that a lessening of relative deprivation might actually increase the magnitude of social protest which does occur.

On the whole, our two "relative deprivation" indicators do lend some support to Gurr, *et al*, albeit not overwhelming. However, ironically enough the results of two other variables (GY and Y) do strongly suggest that relative deprivation may be a factor in increasing at least the frequency of protest.

Real GNP per capita, as well as its growth rates, were found to be consistently positively correlated with the frequency of all protest issues. This strongly supports Olson's thesis that rapid economic growth can lead to economic dislocation and social turmoil. In other words, "relative deprivation" may occur precisely when economic growth is at its peak, through a widening of the gap between some sectors and others. A possible example of this were the "Black Panther" riots in the early 1970s. The latter part of the previous decade was marked by rapid economic growth, especially among the "Oriental" Jews relative to their Ashkenazi counterparts (Committee Report, 1971:4-5). Why, then, did the "Black Panther" phenomenon erupt? Because the relative deprivation was felt not by the whole lower class vis-a-vis the upper classes, but rather by the lowest strata of that class (whose lot was not improving) compared to their upwardly mobile brethren. Here then is an alternative way of possibly synthesizing Marx and De Tocqueville: social turmoil may erupt when things are getting better for the lower class in general while at the same time getting worse for the lumpen sub-group within that broader lower class. As mentioned, however, the "Black Panther" example by itself is not conclusive evidence that this is a

universal phenomenon. Further, more refined research needs to be done before one can propound it as a "social law."

In one sense, though, the "Black Panther" phenomenon was atypical of Israeli social protest. While its events were marked by a high level of intensity especially, over the entire thirty year period social (and overall) protest *magnitude* was *negatively* correlated with OY and with Y. In other words, while economic growth seemed to increase protest frequency, it reduced the magnitude of such protest. But this paradox can be explained by breaking the magnitude index down into its two component parts. The negative correlations of GY and Y with social protest magnitude is solely a function of average *participation* and not average *intensity*. In times of economic expansion, those groups which protest tend to do so more often *but are smaller* in size (after all, the bulk of society is undergoing a change for the better). Such groups (who do not share in the economic expansion) do not stop protesting until some governmental response is forthcoming—a response which may take some time since the authorities are not overly sensitive to, or understanding of, such protest in a time of general prosperity.

We come now to the two central economic variables—unemployment and inflation. Unemployment presents a clear picture with regard to protest frequency. It is positively correlated with the frequency of all except political protest events. The result with regard to economic protest is particularly interesting in light of work done with regard to unemployment's effect on economic strike activity. Again, Galin and Mevorach (1981) found no correlation in Israel, whereas Kaufman (1981) found a *negative* correlation in the U.S.

There is, however, no logical conflict between their results and our findings. Economic strikes are initiated and manned by those who are employed, and during times of high unemployment their demands moderate in tone thereby reducing the number of strikes (for fear of joining the ranks of the unemployed). On the other hand, economic protest stems from the entire public, and perhaps especially from those unemployed, so that one would expect a positive correlation which we did indeed find.

Unfortunately, once again overall protest *magnitude* is "illogically" (here negatively) correlated with unemployment. This time we cannot even ascribe it to only one of its two components since both average total participation and average total intensity display the same negative correlation.

With regard to inflation, it turns out to be positively correlated with *overall* protest frequency, as well as with economic and social protest frequency. All these positive significant effects come as no surprise of course, in light of the sundry studies mentioned earlier. What is

striking, though, is the very significant effect of inflation on political protest (t-value 6.097), a type of protest whose issues (e.g. Arab-Israeli conflict, settlement in the territories, U.S.-Israeli relations, inter-party maneuverings, etc.) are not directly connected to economics. There is little doubt, then, that in the Israeli case at least inflation has serious deleterious effects on the political order. This, in part, is due to the fact that despite the sophisticated indexing techniques developed over the years in Israel the government has not succeeded in completely protecting the public from inflation's ravages. During periods of high double digit and even triple digit inflation, even a mere three month time lag in wage indexation will significantly erode real wages by the third month. In addition, salaried employees suffer disproportionately relative to the self-employed, most of whom can raise their prices (and revenues) at any time. Thus, according to our regression equation, had inflation in 1979 continued along the relatively low level of the late 1960s the overall number of protest events would have been ninety. Instead, 1979 had two hundred and forty-one protest events, and it is no coincidence that this marked an all-time high for Israeli protest (two events every three days!)—after all, it was the first year in Israel's history of three digit inflation.

From the perspective of magnitude of protest, the inflation picture is ambivalent. While religious and perhaps political protest magnitude are also positively correlated, social protest displays a *negative* correlation to inflation! Overall, though, one can say that outside of the latter anomalous exception, inflation does appear to exacerbate public protest numerically as well as qualitatively.

The final three (non-economic) variables display results which are interesting, especially in light of some of this and other projects' previous findings. First, as noted earlier, elections do have an effect, especially on protest frequency. Our regression results here clearly indicate that with regard to religious and social protest (and aggregate protest) election years are marked by declines in the phenomenon. The E+1 results are less clearcut: except for a somewhat significant *negative* correlation with social protest (t-value only 2.076) none of the other protest issues seem to be influenced by the post-election environment. The positive correlations which we expected did not appear. Much of the actual post-election protest frequency increases were due to the Israeli government's manipulation of the economy (Ben-Porath, 1975). Since inflation tended to rise *after* the elections as a result of its "artificial" dampening by the government *before* the elections, the very strong positive correlation of protest frequency with inflation probably accounted for virtually all the influence on the post-election frequency increases leaving almost no significant correlations for the E-1 variable itself.

Insofar as post-election magnitude is concerned, only religious protest proved to positively correlated—as predicted elsewhere (Lehman-Wilzig and Goldberg, forthcoming). A significant portion of religious protest in Israel is fomented by zealots who do not partake of the political process. Tactically, they wait until the general political “static” of the election period disappears for the opportunity to present their own “loud” messages (usually accompanied by a relatively high rate of violence) after the elections have taken place.

Unlike Galin and Mevorach's findings with regard to economic strike activity, we find no negative correlation of overall protest frequency or magnitude with war periods. This is possibly due to the fact that our periodization of necessity was annual (many of Israel's economic statistics—especially for the earlier years—are given only for full year periods) while theirs was quarterly; since war in Israel has no great forewarning, the pre-war months' “normal” protest activity (during the “war year”) may effectively cancel out the post-war months for that year. But wars in Israel *do* have a dampening effect on post-war protest frequency for most—except political—protest issues. The *positive* $W+1$ correlation with *political* protest probably reflects the public's frustration with the government's inability to transform the fruits of military victory into the political achievement of peace.

Finally, as expected, government size is negatively correlated with *overall* protest frequency and magnitude. Yet while social and religious protest frequency follow this line, political protest frequency is paradoxically *positively* correlated with $G\ SIZE$. One can speculate that whereas expansion of the cabinet allows for the institutionalization of political communication on the part of social and religious pressure groups, such governmental enlargement brings with it a greater diversity of political opinions which makes decisive decision-making on political issues more problematical, leading to more political protest, though of lesser magnitude. In addition, the enlargement of the government has the effect of weakening the institutional opposition within the Knesset, thereby channeling political protest into the extra-parliamentary arena (i.e. the streets).

4. CONCLUSIONS

The present study attempts for the first time to test the impact of various economic variables on protest frequency and magnitude *per protest issue*. Of major interests was whether relative deprivation indicators in the Israeli case had significant impact on protest frequency and/or magnitude.

In general, the findings support our initial contention that a fuller understanding of the overall totals can only be acquired through a breakdown into its components issue areas. As noted earlier social-

issue protest is significantly affected by the economic variables studied (more so even than for economic-issue protest), but political-issue protest also shows surprisingly high correlations, which was not entirely expected. Both these issues had very high overall determination coefficients (R^2 .893 and .909, respectively), while religious and economic issues were somewhat weaker but significant nonetheless.

Of course, when considering these indices one cannot discount the possible effect of intervening variables which also have changed over time. A prime example of this is political culture—the public's attitudes toward public protest. Some evidence does exist which suggests that Israelis have become much more tolerant of such activities over the thirty year period under review (Lehman-Wilzig, 1982: 129). This, of course, hardly negates our findings here; most probably a two-way relationship exists whereby the political culture has changed to accommodate itself to an increasingly prevalent protest phenomenon—whose higher frequency is in no small part due to rising inflation—with such changed attitudes forming the basis of still more subsequent protest.

Leaving aside for the moment the highly slippery notion of political culture, from a public policy point of view there is good news here for any government wishing to address and reduce the amount of public protest. Except for two minor non-economic variables correlated to protest frequency ($G\ SIZE$ and $W+1$, for political protest), each variable is correlated with the frequency of the sundry protest issues in the same direction. The same holds true to a lesser extent for protest magnitude. In other words, when significant correlations do appear between economic variables and protest frequency the sign is either positive or negative across the board (for those protest issues which have a significant correlation at all). To take but one example, government policy which reduces inflation will reduce the protest frequency of political, economic and social protest, while *not* raising it for religious protest. We do, of course, recognize the fact that government action to influence a specific economic variable in a desired direction (e.g. lowering inflation) may adversely affect other economic policy variables (e.g. higher unemployment). Thus, one should not over exaggerate the government's ability to reduce public protest frequency through macro-economic policy alone.

In addition, our results also show that government policy may find itself in a cul-de-sac with regard to protest frequency and protest magnitude taken together. Since, as pointed out earlier, almost all the signs are reversed for these two central elements of protest, any economic policy designed to *reduce* the number of protests will *exacerbate* the magnitude of those protests still remaining, and vice versa. Each government will have to decide which of the two presents a greater “threat” to social order. It might, however, be instructive to note that only one

variable correlates significantly *and in the same direction* with overall protest frequency and magnitude; government size. Thus, the best way for the government to begin reducing protest in *all* its manifestations is not necessarily through any specific policy but rather lies in the very composition of the government itself.

The results in connection with the issue of relative deprivation are especially instructive. The two indicators chosen to test for this (W/PI and T) exhibited significant negative correlations with protest frequency, but generally no correlations with protest magnitude. Two other economic variables which *a priori* were not chosen as relative deprivation indicators (Y and GY) displayed results which lend support to some theories which contain elements of relative deprivation. Thus, we can conclude that relative deprivation in the Israeli case is a factor in fermenting unrest as manifested in public protest.

In the final analysis, however, relative deprivation cannot be said to be the only factor in fermenting Israeli public protest. Other economic factors—such as inflation—do have a significant impact, even in issue areas where no seeming connection exists. Thus, on one score we can agree with De Tocqueville, Marx, *et al.*: economic problems have more than purely economic implications in the public sphere.

REFERENCES

- Azar, Edward E., Stanley H. Cohen, Thomas O. Jukam and James McCormick
1972 "The problem of source coverage in the use of international events data." *International Studies Quarterly* 16:373-88.
- Ben-Porath, Yoram
1979 "The years of plenty and the years of famine—a political business cycle?" *Kyklos* 28:400-03.
- Central Bureau of Statistics
1981 *Statistical Abstract of Israel*, Jerusalem: Bureau Publications Section.
- Committee Report on Income Distribution and Social Inequality
1971 Tel Aviv (Hebrew)
- Corcione, Frank P. and Robert J. Thornton
1981 "The economic determinants of strike activity: an industry approach." *Review of Business and Economic Research* 17:15-26.
- Davies, James C.
1962 "Towards a theory of revolution." *American Sociological Review* 27:5-19.
- De Tocqueville, Alexis
(1856) *The Old Regime and the French Revolution*, Stuart Gilbert (trans.).
1955 Garden City, N.Y.: Doubleday.
- Feierabend, Ivo K., Rosalind L. Feierabend and Betty A. Nesvold
(1969) "Social change and political violence: cross-national patterns." Pp. 107-24 in I.K. Feierabend, R.I. Feierabend, and Ted Gurr (eds.), *Anger, Violence, and Politics: Theories and Research*, Englewood Cliffs,
1972 N.J.: Prentice Hall.

- Feierabend, Ivo K. and Rosalind L.
1966 "Aggressive behaviors within politics, 1948-1962: a cross-national study." *Journal of Conflict Resolution* 10:249-71.
- Galin, Amira and Baruch Mevorach
1981 "On politics and Labor conflict" (Hebrew). *Riv'on Le'Kalkalah* 108:35-42.
1982 "On the potential advantages of coalition and government size" (Hebrew). *Netivei Irgun ve'Minhal* 3-4: 14-17.
- Gurr, Ted R.
1968 "A casual model of civil strife: a comparative analysis using new indices." *American Political Science Review* 62:1104-24.
1970 *Why Men Rebel*. Princeton: Princeton University Press.
- Hibbs, Douglas A.
1973 *Mass Political Violence: A Cross-National Causal Analysis*. New York: Wiley.
- Johnston, John
1963 *Econometric Methods*. New York: McGraw-Hill.
- Kaufman, Bruce E.
1981 "Bargaining theory, inflation, and cyclical strike activity in manufacturing." *Industrial and Labor Relations Review* 34:333-55.
- Ladd, Edward H.
1981 "Thoughts on the long-term implications of inflation." *Financial Analysis Journal* 37: (July-August) 48-56.
- Levi, Hayyim and Yoram Landskroner
1979 "Taxation and investment under inflationary conditions" (Hebrew). *Riv'on le'Kalkalah* 101-02: 913-20.
- Lehman-Wilzig, Sam
1981 "Public protest and systemic stability in Israel: 1960-1979." Pp. 171-210 in Sam Lehman-Wilzig and Bernard Susser (eds.), *Comparative Jewish Politics: Public Life in Israel and the Diaspora*, Ramat Gan: Bar-Ilan University Press.
1982 "The Israeli protester." *The Jerusalem Quarterly* 26:127-38.
1983 "Thunder before the storm, pre-election agitation and post-election turmoil." Pp. 191-212 in Asher Arian (ed.), *The Elections in Israel—1981*, Tel Aviv: Ramot Press.
- Lehman-Wilzig, Sam and Giora Goldberg
1983 "Religious protest and police reaction in a theo-democracy: Israel, 1950-1979." *Journal of Church and State* 25: 491-505.
- Marx, Karl and Friedrich Engels
1959 *Basic Writings on Politics and Philosophy*, Lewis S. Feuer (ed.). Garden City, N.Y.: Doubleday.
- Miller, Abraham H., Louis H. Bolce, and Mark Halligan
1977 "The J-Curve Theory and the black urban riots: an empirical test of progressive relative deprivation theory." *American Political Science Review* 71:964-82.
- Nelson, Charles R.
1976 "Inflation and capital budgeting." *Journal of Finance* 31:923-31.
- Olson, Mancur, Jr.
1963 "Rapid growth as a destabilizing force." *Journal of Economic History* 23:529-52.
- Sorokin, Pitrim
1937 *Social and Cultural Dynamics*, vol. 3; *Fluctuations of Social Relationships War and Revolutions*. New York: American Book Co.

Sundaram, S.

1974 Vote and Violence. Rajghat, Varanasi: Gandhian Institute of Studies.

Tanter, Raymond

1966 "Dimensions of conflict behavior within and between nations." *Journal of Conflict Resolution* 10:41-64.

Taylor, Charles E. and Michael C. Hudson

1972 *World Handbook of Political and Social Indicators*, second edit. New Haven: Yale University Press.