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New Deal Activity and the States, 1933 to 1939

In the three months after his inauguration—the now famous 100 days—Franklin Roosevelt proposed a veritable barrage of programs that were passed by Congress—programs which were to have a profound effect on the American economy. From this beginning sprang forth the economic policy of the 1930's which was aimed at returning the nation to prosperity and changing its social and economic structure. The programs were directed toward specific as well as general problems and affected differently the various geographic areas of the nation.

Comparative studies of federal expenditure programs in the various states are limited, especially before World War II, by incomplete or nonexistent data. A set of mimeographed reports recently brought to light makes possible such studies for the 1933-1939 period.[1] Prepared by the Office of Government Reports, Statistical Section, for Franklin Roosevelt's 1940 campaign, this set of forty-eight reports details each New Deal program year by year for the period 1933-1939. The reports also contain material on the organization of various programs and outline work accomplishments in each state. For statistical and analytical purposes the reports are an invaluable set of compatible data for comparing federal activity in various states during the 1933 to 1939 period. All data in the statistical analysis which follows, unless otherwise cited, have been taken from these reports. The one major exception is the expenditures of the Tennessee Valley Authority, which are not reported in the set referred to, but which have been ascertained and included in this study.[2]

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1 Office of Government Reports, Statistical Section, Report No. 10, Volume II, Washington, D.C., 1940, mimeographed. Copy in the library of the Superintendent of Documents, Washington, D.C.; Xerox copy in Utah State University Library, Logan, Utah.

2 Frank F. Smith, Letter to Mr. Bobby M. Corcoran, November 4, 1970. (Mr. Smith is Director of the Tennessee Valley Authority, Knoxville, Tennessee.)

The following study does not attempt to differentiate between types of programs. Some New Deal Programs were established to meet a specific emergency; others were directed toward aiding depressed areas for the duration of the depression; still others were permanent and lasting. Some programs were the creation of New Deal planners; others were holdovers from the previous administrations. The Roosevelt Administration viewed many well-established programs (the Bureau of Public Roads, the Veterans' Administration, the Bureau of Reclamation) as vehicles for further "pump-priming" and methods of increasing employment.

These are certain problems in attempting to separate New Deal allocations by states. Many projects had a multi-state impact. Dams constructed in one state would influence employment greatly in states close to the construction site. CCC camps attracted workers from all states and $25.00 of the $30.00 received each month was sent home to needy dependents. As an example, in Idaho in August of 1939, only 1,127 of the state's 9,655 CCC camp members claimed Idaho as their state of residence. The benefits of many projects such as flood control, regional power networks, and soil conservation would accrue to states which did not receive the allocation for the project. While these problems are troublesome, there seems no rational method for compensation which would not add greater confusion. Therefore all program allocations to a given state were assumed to affect that state.

A general and significant pattern emerges from this state-by-state, region-by-region analysis of New Deal programs. The western states, and to a greater extent the mountain states, received a much larger per capita share of New Deal loans and expenditures than other regions of the country. The south, which Franklin Roosevelt proclaimed as the "Nation's Number One Economic Problem" received, on a per capita basis, the smallest allocations from nearly all programs.

Many programs, when analyzed in relation to the states or regions which received the largest or smallest allocations on both an absolute and a per capita basis, yield results that are not particularly surprising. For example, the largest expenditures from the Agricultural Adjustment Administration (both the 1933 and 1938 acts) flowed to the southern and plains states; that is, the states with the highest percentages of the economy engaged in farming. The lowest amount went to the northeastern states, with a relatively low percent

TABLE 1
NEW DEAL EXPENDITURES, LOANS, AND INSURANCE BY STATES, 1933 TO 1939

Absolute Allocation 1933-1939			*Per Capita Allocation 1933-1939* (1930 population)		
State	Rank	Amount in Dollars	State	Rank	Amount in Dollars
New York	1	4214632166	Nevada	1	1499.39
California	2	3054808597	Montana	2	986.30
Illinois	3	2784416009	Wyoming	3	896.91
Ohio	4	2548119820	Arizona	4	791.46
Pennsylvania	5	2512598632	Idaho	5	744.15
Texas	6	2106916828	North Dakota	6	707.84
Michigan	7	1883495906	South Dakota	7	701.61
New Jersey	8	1335440333	New Mexico	8	689.76
Missouri	9	1234146757	Utah	9	569.49
Massachusetts	10	1216327872	California	10	538.10
Iowa	11	1153236166	Nebraska	11	536.87
Wisconsin	12	1146995763	Oregon	12	535.66
Minnesota	13	1090999960	Washington	13	527.77
Indiana	14	1079307208	Colorado	14	506.30
Tennessee	15	901511069	Iowa	15	466.70
Washington	16	824912180	Kansas	16	434.30
Oklahoma	17	821025210	Minnesota	17	425.50
Alabama	18	819689440	Arkansas	18	396.12
Kansas	19	816920692	Vermont	19	390.49
Georgia	20	793270890	Wisconsin	20	390.26
Louisiana	21	777332649	Michigan	21	388.99
Nebraska	22	739816299	Ohio	22	383.24
Arkansas	23	734407732	Florida	23	377.21
North Carolina	24	721348748	Louisiana	24	369.80
Mississippi	25	719950715	Illinois	25	364.88
Kentucky	26	656489291	Texas	26	361.70
Virginia	27	617423756	Mississippi	27	358.18
Maryland	28	562747966	Maryland	28	344.82
Florida	29	553745638	Tennessee	29	344.48
South Carolina	30	532884677	Oklahoma	30	342.66
Montana	31	530633681	Missouri	31	340.07
Colorado	32	524531880	Maine	32	336.07
Oregon	33	511021747	New York	33	334.81
South Dakota	34	486220790	Indiana	34	333.22
North Dakota	35	482041916	New Jersey	35	330.47
West Virginia	36	458388416	Delaware	36	310.13
Connecticut	37	380738696	Alabama	37	309.78
Arizona	38	345077459	South Carolina	38	306.43
Idaho	39	331149924	Massachusetts	39	286.26
New Mexico	40	291768941	Georgia	40	272.69
Utah	41	289301781	West Virginia	41	265.11
Maine	42	267853368	Pennsylvania	42	260.88
Wyoming	43	202703636	Virginia	43	254.91
Rhode Island	44	169393142	Kentucky	44	251.04
Vermont	45	140577924	New Hampshire	45	247.76
Nevada	46	136445094	Rhode Island	46	246.56
New Hampshire	47	115212905	Connecticut	47	236.92
Delaware	48	73812715	North Carolina	48	227.55

Source: Office of Government Reports, Report 10, Vol. II.

TABLE 2
NEW DEAL EXPENDITURES, LOANS, AND INSURANCE BY REGION, 1933 TO 1939

Absolute Allocation 1933-1939			*Per Capita Allocation 1933-1939 (1930 Population)*		
Region[a]	Rank	Amount in Dollars	Region[a]	Rank	Amount in Dollars
Midwestern	1	12920717580	Mountain	1	716.26
Western	2	12495296644	Pacific	2	535.84
Northeastern	3	10426587736	Western	3	504.86
Southeastern	4	8849180988	Great Plains	4	424.22
Great Plains	5	5452941738	Midwestern	5	380.44
Pacific	6	4390742526	Southeastern	6	305.55
Mountain	7	2651612396	Northeastern	7	300.78

[a] Each region is made up of the following states:
Northeastern Region: Connecticut, Delaware, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont.
Southeastern Region: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia.
Midwestern Region: Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, Wisconsin.
Western Region: Arizona, California, Colorado, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington, Wyoming. *Great Plains Region:* Kansas, Nebraska, North Dakota, Oklahoma, South Dakota, Texas. *Pacific Region:* California, Oregon, Washington. *Mountain States Region:* Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming.
Source: Office of Government Reports, Report 10, Vol. II.

of farm activity. Some program loans or expenditures in specific states can be traced to large projects funded by a particular agency. For example, the per capita amount received by Montana from the Public Works Administration was twice that of any other state. This was due to the participation of the PWA in construction of the $100 million Fort Peck Dam, which accounted for a high proportion of the large Montana allocation.

HYPOTHESIS DEFINED

In order to explain the wide differences in the per capita distribution of New Deal funds among states one must look for clues concerning the motivation of policy decisions in the vast outpouring of political rhetoric. While specific reasons may be cited for high per capita rankings for any given program in any given state, it is hypothesized that there was a general concept behind the pattern of expenditures in the various states. In the Fireside Chat, reviewing

the achievements of the Seventy-third Congress in the late spring of 1934, Roosevelt outlined "three related steps" in "efforts toward the saving and safeguarding of our national life."[3] The first step was relief; the second, recovery; and the third, reform. Congress often looked at New Deal legislation as a two-stage program, with the first stage being relief and recovery and the second reform. These two subdivisions are used in the statistical analysis.

The federal government during the 1930's felt a need to improve the nation's assets as well as to direct expenditures toward relief, recovery, and reform. This was indicated in the same Fireside Chat when Roosevelt advocated a "plan to use land and water resources of this country to the end that the means of livelihood of our citizens may be more adequate to meet their daily needs."[4]

Seven independent variables have been selected and grouped into three major categories: national assets, relief and recovery, and reform. These variables are regressed on total per capita program activity from the years 1933 to 1939, in an effort to explain the disparity in per capita allocations to states.

1. *National Assets: Percent of Federal Land Owned in Each State, 1937*

Although federal administrators since the presidency of Theodore Roosevelt have had a fairly precise knowledge of the percent of federal land ownership in each state, the first exact data were published in 1937.[5] The states ranged from a low of 0.10 percent in Iowa to a high of 83 percent in Nevada. Even though the time period is several years after the beginning of most New Deal spending programs, it is reasonable to assume that the relative mix of federal ownership did not change significantly from 1933 to 1937. Moreover, the data, in a disaggregate form, existed during the planning stages of New Deal programs. It is hypothesized that the federal government would invest more per capita in areas where it owned large amounts of land. One reason for this would be the upkeep and improvement of the natural resources over which the government had direct control. In addition it is desirable to minimize, within limits,

[3] B. C. Zevin (ed.), *Nothing to Fear: The Selected Addresses of Franklin Delano Roosevelt, 1932-1945* (Cambridge, Mass.: Houghton Mifflin Co., 1946), pp. 34-41.

[4] *Ibid.*, p. 39.

[5] U.S. President, Message, "Federal Ownership of Real Estate and Its Bearing on State and Local Taxation," 76th Congress, 1st Session, House Misc. Doc. No. 111, Appendix A (Washington, D.C.: Government Printing Office, 1939).

the transactions costs of Federal allocations. In general, states with larger percentages of Federal land would have established conduits through which monies could be channeled without the implementation of expensive bureaucratic machinery.

2. *National Assets: Per Capita Miles of State Highway Systems*

The per capita miles of highways in 1930 was calculated from total rural roads, municipal streets, and connecting highways in each state and divided by the 1930 population of the state. The 1930 population was selected because of the relatively accurate population figures for the census year. This variable is included because of the problem that large-area, low-population states have in financing highway systems and because of a national need to have an adequate interstate highway network. Such a system would facilitate the transportation of raw to finished goods from various geographical regions of the country. The nation's farmers tend to live in the more sparsely settled areas and have a real need for roads to deliver their product to areas of greater population.

Federal aid to state highway systems was distributed through several agencies and programs. Regular federal-aid road construction was usually funded by the Bureau of Public Roads. In addition, emergency road construction and grade-crossing projects were provided by the National Industrial Recovery Act of 1934 and by the Emergency Relief Appropriation Act of 1935. These federal funds were for highways, roads, grade-crossings, and streets.

3. *Relief and Recovery: Decline in Per Capita Real Personal Income, 1929-1933*

The percent decline in real per capita personal income from 1929 to 1933 may be used to represent the administration's attempts to restore the purchasing power of the nation and return it to a pre-1929 level. This is distinct from real per capita personal income which is used as a variable in the reform group. The time period of 1929-1933 corresponds with the percentage change over a cyclical period calculated by Abner Hurwitz and Carlyle P. Stallings for the National Bureau of Economic Research.[6]

[6] Abner Hurwitz and Carlyle P. Stallings, "Inter-regional Differentials in Per Capita Real Income Changes," *Studies in Income and Wealth,* Vol. 21, National Bureau of Economic Research (Princeton: Princeton University Press, 1946), pp. 195-265.

4. *Relief and Recovery: Unemployment in Each State, 1937*

Given the asserted goals of the New Deal, it would seem logical to assume that the states with the highest unemployment rates would receive substantial federal help. The year 1937 was used because that was the only year, other than the census years of 1930 and 1940, in which a state-by-state unemployment enumeration was taken. In that year a special census of partial employment, unemployment and occupations for cities and states was released. The data used include the percentage of estimated population (*not* a percent of labor force) who registered in the census who were totally unemployed or emergency workers. The rates ranged from a high of 9.0 in Montana to a low of 3.4 in Iowa.

These percentages seem low due to the fact that the unemployment totals were divided by total population rather than by total labor force, as is the common practice today. A defensible statistical definition of "labor force" was not developed and generally accepted until the census of 1940. The census of 1930 used the term "gainful workers," which is less rigorously defined than "labor force." The lack of adequate unemployment data led to the special 1937 Census of Unemployment, whose figures are used here. While the data presented are questionable by modern standards, they offer the best state-by-state analysis of unemployment during the 1930's. The special 1937 census of unemployment was also used by New Deal planners.

5. *Reform: Level of Personal Income, 1933*

If the Roosevelt administration were to achieve its goal as a reformer of national inequities, one might expect that it would expend a greater portion of its funds in states with the lowest real per capita personal income. The year 1933 was selected to represent the trough of the depression.

6. *Reform: Number of Tenant Farms, 1930*

Even though Congress often balked at funding the programs of the Roosevelt administration, it approved several programs aimed at helping farmers obtain the land they worked. It is hypothesized that the New Deal planners wanted to aid in reforming the inequities of the rural sector and that the greater per capita funds would flow to states with a higher percent of tenant farms.

7. Reform: Number of Blacks, 1930

One might hypothesize that the percent of state population which was black might have been a factor in influencing the amount of allocations of New Deal agencies to the various states. The economic plight of the blacks was well known to New Deal planners. As a reform measure one would assume greater per capita effort to states with higher percents of blacks to total state population.

ANALYSIS OF REGRESSION EQUATIONS

The data given above were selected because the precise data, or a near-equivalent, would have been at the disposal of New Deal planners. We may then use the variables as follows:

National Assets:
- X_1: The percent of federal land owned in each state, 1948.
- X_2: Per capita highway miles, 1930.

Relief and Recovery:
- X_3: Percent decline in real per capita personal income, 1929-33.
- X_4: Percent unemployment 1937.

Reform:
- X_5: Real per capita personal income, 1933.
- X_6: Percent tenant farms, 1933.
- X_7: Percent black, 1930.

The selection of variables to stand as proxies for governmental policy statements is tenuous at best. One complicating factor is the possibility of multicollinearity. This problem became especially acute in the selection of variables to stand proxie for the goal of reform. Several variables were chosen, but rejected, because of the problem of collinearity. One of the most logical to use is the illiteracy rate which had a simple correlation coefficient with percent black of .81 and with a percent of tenant farms of .72.

Another variable which would be logical to add to the reform group would be the distribution of income. This variable could not be added to the reform group because of insufficient data. While several excellent income distribution studies of the New Deal period have been undertaken, no data have been available on a state-by-state basis. The income studies taken during the 1930's were done with a stratified sample which did not cover every state, and this

information was not included in the census until 1950. State-by-state breakdowns of income distribution are available for 1949, but an analysis based on backward extrapolation of these data would certainly seem invalid. Since World War II there have been major shifts in the distribution of income within states.

If the New Deal was successful in all the goals set by Franklin Roosevelt, to the extent that the afore-mentioned variables measure the effects of this policy, there should be a significant relationship between each of the independent variables, (X_1 X_2 . . . X_7) and the per capita allocations (the dependent variable). All signs on the X_i are hypothesized to be positive with the exception of X_5 (the lower the per capita personal income, the higher the per capita expenditures). If only parts were successful, the independent variable within any one of the three groups should be statistically significant while the variables in any of the others would be insignificant. The regression results are given in Table 3 with an explanation of each of the independent variables following.[7]

EXPLANATION OF REGRESSIONS

Using per capita expenditures as the dependent variable, the significance of the four independent variables X_1 through X_4 would indicate that the Roosevelt administration allocated funds from expenditure programs on a per capita basis to states where there was a need to aid in the development of national assets and to assist in relief and recovery. However, per capita expenditure funds were not allocated in relation to reform. The percent of explained variation in the dependent variable, per capita expenditures, by the independent variables, or the R^2, is .84.

When regressing the selected independent variables X_1 through X_7 on per capita loans, we are confident at the .10 level that the independent variables X_1 through X_3 are significantly related to per capita loans. This indicates that X_4, or percent unemployment, did not exert a statistically significant influence on the direction of flow of New Deal lending programs. This result is not surprising given the nature of programs aimed at aiding unemployment, such as Works Progress Administration, Public Works Administration, Civil Works Administration, and Federal Emergency Relief Administration, which were all grant and not loan programs. Given the selected

[7] The residuals for each regression were very random with no extreme values.

TABLE 3
REGRESSION RESULTS

	X_1	X_2	X_3	X_4	X_5	X_6	X_7	
1. Expenditures	4.04[a]	9.99[a]	5.12[a]	16.45[a]	.07	1.31	−1.40	Alpha = −151.4
	(.78)	(1.63)	(2.27)	(9.90)	(.08)	(1.22)	(1.56)	R = .84
								DW = 2.09
2. Loans	1.09[a]	1.41[a]	3.45[a]	−7.24	.01	1.06	−1.53	Alpha = 30.4
	(.47)	(.97)	(1.35)	(5.89)	(.05)	(.72)	(.93)	R = .59
								DW = 1.92
3. Expenditures and Loans	5.13[a]	11.33[a]	8.47[a]	8.63	.07	2.33	−3.05	Alpha = −112.4
	(1.10)	(2.29)	(3.19)	(13.93)	(.11)	(1.71)	(2.19)	R = .81
								DW = 1.89
4. Expenditures Loans and Insurance	5.71[a]	11.05[a]	8.51[a]	7.41	.12	2.17	−2.48	Alpha = −119.4
	(1.12)	(2.31)	(3.23)	(14.09)	(.11)	(1.34)	(2.22)	R = .81
								DW = 1.89

[a] Significant at the .10 level. Standard error of the coefficient listed below the coefficient. Alpha is the intercept term.
Source: See text.

TABLE 4
CORRELATION COEFFICIENTS OF INDEPENDENT VARIABLES

	X_1	X_2	X_3	X_4	X_5	X_6	X_7
X_1	1.000	.561	.300	.395	.463	−.309	−.314
X_2		1.000	−.044	−.182	−.072	−.162	−.084
X_3			1.000	.175	−.287	.163	−.301
X_4				1.000	.118	−.142	−.172
X_5					1.000	−.687	−.481
X_6						1.000	.732
X_7							1.000

Source: See text.

variables, New Deal loans flowed in greater per capita amounts to states to aid in the development of national assets and higher amounts of decline in per capita real personal income than for unemployment relief or reform.

Given the variables representing Roosevelt's three stated goals, the analysis leads to the conclusion that per capita loans flowed in relation to national assets, for relief and recovery in relation to percent decline in real per capita income but not unemployment, and again, as in the case of per capita expenditures, not for reform. The relatively low R^2 in the case of per capita loans is probably due to the fact that the largest lending programs were to aid financial institutions (Reconstruction Finance Corporation) or the agricultural sector (Farm Credit Administration, Commodity Credit Corporation, Farm Security Administration), and these two sectors are not explicitly represented in the independent variables.

The results of regressions on per capita loans and expenditures and per capita expenditures, loans, and insurance were similar to those of per capita loans, even though the percent of explained variation ($R^2 = .81$) is higher. The same independent variables are significant (X_1 through X_3), filling the group selected to represent national assets and a relief and recovery variable (percent decline in real per capita personal income) while unemployment and the reform variables add little to the explained variation in the respective dependent variable.

GENERAL OBSERVATIONS

A distinction should be made between the two independent variables, X_3 (percent decline in real per capita income) and X_5 (per capita real personal income). The fact that there is a significant

relationship between each case and the percent decline in real per capita income, and in no case a significant relationship with per capita personal income, seems to provide an insight into New Deal thinking. The simple correlation coefficient between X_3 and X_5 is $-.28$. Apparently, the Roosevelt administration was more concerned with returning purchasing power, through increasing real per capita income, to a pre-1929 level than it was in equalizing real per capita income between states.[8] Per capita funds flowed in all categories of New Deal programs in greater amounts to those states where the real per capita income drop was the greatest, but not to the states with a relatively low level of real per capita personal income. Perhaps the New Deal planners were reacting to the concepts that have been pointed out in recent models of discontent. People seem to adjust to a given level of income irrespective of size, and reductions in income are met with unrest and discontent. It would be politically advantageous to allocate funds to restore income to groups whose incomes have dropped. Once the incomes have been restored, the marginal dollar spent on that group would mean less than a dollar allocated to groups whose incomes were still below their previous income level.[9]

As in the case of analyzing X_7, the percent of state population that is black, the sign of the coefficient X_5, real per capita income, is the opposite of what would be expected if the Roosevelt administration was trying to reform per capita income inequities among states. Even though non-significant, the sign of the coefficient of X_5 was positive in each regression case. One would expect that, if reform was a goal of the New Deal and greater income equality was a reform goal, greater per capita expenditures would flow to states with the lowest real per capita income and, hence, a negative coefficient would be the result.

Given the selected variables to fill the definitions of national assets, relief and recovery, and reform, the actual per capita direction of New Deal funds fulfilled the goal of improving national assets and contributed toward the return of the economy to a pre-1929 level. Unemployment was attacked through expenditure, but not through lending programs, and reform was left wanting in all categories of programs. Given these results, one may posit that Roose-

[8] This same result was found by L. J. Arrington, "Western Agriculture and the New Deal," *Agricultural History*, XLIV (October 1970) 337-353.

[9] This important concept was pointed out by an anonymous referee.

velt took two of the steps outlined in his June, 1934 Fireside Chat: namely, improving America's national assets and relief and recovery, but failed to achieve the quantifiable elements in the goal of reform.[10]

The logic of political attitudes, if they could be measured accurately, are difficult to untangle. Would the administration direct funds to areas where Roosevelt's popularity was relatively low in an attempt to "buy" votes, or would it hold back funds to financially "punish" a state for not supporting the administration?[11]

Several variables which could be expected to influence the flow of per capita New Deal funds to states are nearly impossible to quantify and, thus, were not included as independent variables in the regression analysis. An important one on both the federal and state levels is the willingness of state and local units to set up the machinery for the disbursement of federal funds. The vigor with which state officials lobbied for programs which would affect their particular area would seem to have a pronounced effect on the flow of funds.

A review of the literature of federal spending in states during the 1930's makes one aware of the difference in attitudes of state and local officials toward federal programs in their states. Many high-ranking state officials believed that federal agencies entered into activities which better belonged under state jurisdiction. This seems most true in the southern and New England states. One example of the extent to which state officials would go in protesting federal intervention was the case of Governor Francis P. Murphy of New Hampshire. After a devastating hurricane struck New England in September of 1938, the Disaster Loan Corporation, the Works Progress Administration, and the Public Works Administration imple-

[10] The wife of the President, Mrs. Roosevelt, stated in a speech in February of 1939 that New Deal programs "helped but they did not solve the fundamental problems." See Henry Wallace, *The Christian Bases of World Order* (New York: Abingdon Cokesbury Press, 1943), p. 17. Also the failure of general reform has been noted by several New Deal historians. (Douglass C. North, *Growth and Welfare in the American Past,* 1966, pp. 174-180, and Paul K. Conkin *The New Deal,* 1967, pp. 172-73.

[11] Gavin Wright has found some interesting political measures which seem to be correlated with New Deal spending (forthcoming in *Review of Economics and Statistics*). He uses electoral votes per capita, the variability of a state's voting pattern (standard deviation), and the absolute difference between .500 and a "predicted" level of Democratic share in 1932. There is a high degree of multicollinearity between several of our independent variables especially electoral votes per capita, percent Federal land owned, and per capita highway miles.

mented an $11 million flood-control plan. Governor Murphy opposed the federal intervention and attempted to implement court appeals to prevent federal flood-control work in New Hampshire. This general attitude does not seem as apparent in western states where the highest per capita loans and expenditures were directed.

Even when a given program was established in each state, as in the case of Social Security, there was a wide difference in the implementation of given programs. One measure which gives an indication of this is the "waiting line" for Social Security benefits. This "waiting line" is the number of people per 100 on Social Security that applied for benefits and were waiting for their applications to be processed. The number in each state varied widely. Utah, as of June, 1938, had a "waiting line" number of 0.9, while Georgia had 204.2. Not all applications would be approved, but the amount of funds disbursed in the state would be lower where many applications were in process. Generally, the southern states had the highest "waiting line" and numbers in the western states were the lowest.

In general, the western states seemed most willing to extend an open hand to Washington, while New England and southern states were most antagonistic to federal programs. An exception to this in the southern states was the acceptance of federal agricultural programs, such as the Commodity Credit Corporation, which dealt, among other things, with cotton and tobacco. While no quantifiable statistic is available which would indicate "willingness to accept federal programs," this concept seems to have played an important role in the flow of per capita New Deal funds to given states.

SUMMARY

The results of the analysis suggest that, given the independent variables selected, New Deal agencies failed to expend in a pattern that would effect reform, but did expend in a pattern that would contribute to relief and recovery and at the same time improve the utilization of natural resources. The statistical analysis also yields some interesting insights into the New Deal philosophy. There is a significant positive relationship between New Deal activity and the percent decline in real per capita personal income, but an insignificant relationship between the level of real per capita income and New Deal spending. This would seem to indicate that the Roosevelt administration was content with the modest goal of seeking to re-

turn incomes to a pre-1929 level rather than striving to equalize per capita income between states and regions.

The investigation of New Deal programs leads, as one would expect, to many additional questions. What were the political influences behind the pattern of state allocations? Was Roosevelt attempting to buy votes in the west and shorting the south because it was strongly Democratic? How did the fixed and variable costs of implementing the various programs in different states affect the pattern of allocations? What was the economic impact of given programs in given states and regions? What were the year-to-year changes in New Deal effort for the years 1933-1939?

The data presented in this study provide a basis for further study of specific program activity in all or any grouping of states and the expenditures of all or any group of programs in any one state.

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APPENDIX

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APPENDIX TABLE I
NEW DEAL EXPENDITURES BY STATES
1933-1939

State	*Rank*	*Amount in Dollars*
New York	1	2581360614.
Pennsylvania	2	1819998951.
Illinois	3	1520690490.
California	4	1511706770.
Ohio	5	1447727438.
Texas	6	1195966708.
Massachusetts	7	921496189.
Michigan	8	916990154.
Missouri	9	862880012.
New Jersey	10	714904976.
Minnesota	11	697604861.
Wisconsin	12	688037358.
Indiana	13	667863294.
Tennessee	14	587353896.
Washington	15	582679256.
Oklahoma	16	575634629.
Iowa	17	572534447.
Alabama	18	551982381.
Kansas	19	528454144.
Georgia	20	495780782.
Arkansas	21	475420579.
Kentucky	22	471740714.
North Carolina	23	467008102.
Louisiana	24	465361889.
Mississippi	25	457713463.
Virginia	26	423795812.
Nebraska	27	400273394.
Montana	28	381382693.
Colorado	29	375101905.
Florida	30	363572887.
West Virginia	31	350160231.
South Carolina	32	344947572.
Oregon	33	338809347.
South Dakota	34	308967220.
Maryland	35	302702368.
North Dakota	36	293323694.
Arizona	37	261368351.
Connecticut	38	252099663.
New Mexico	39	223301907.
Idaho	40	209057598.
Utah	41	173886682.
Maine	42	157636941.
Wyoming	43	141185431.
Rhode Island	44	114788954.
Nevada	45	102881055.
Vermont	46	90764059.
New Hampshire	47	89508795.
Delaware	48	57865708.

Source: Office of Government Reports, Report 10, Vol. II.

APPENDIX TABLE II

NEW DEAL LOANS BY STATES

1933-1939

State	*Rank*	*Amount in Dollars*
New York	1	1320966962.
Illinois	2	1108692790.
California	3	1072149629.
Ohio	4	950210837.
Texas	5	805735655.
Michigan	6	788916729.
Iowa	7	558649362.
Pennsylvania	8	540025723.
New Jersey	9	460355548.
Wisconsin	10	421191640.
Minnesota	11	352420919.
Indiana	12	336850461.
Nebraska	13	326600036.
Missouri	14	303588957.
Louisiana	15	290761205.
Tennessee	16	274994595.
Kansas	17	262134455.
Georgia	18	258198500.
Massachusetts	19	246187391.
Alabama	20	245376802.
Arkansas	21	245162281.
Mississippi	22	244304626.
North Carolina	23	228068077.
Maryland	24	215077024.
Oklahoma	25	213505566.
North Dakota	26	185055710.
Washington	27	184791618.
South Carolina	28	173415790.
South Dakota	29	172206250.
Kentucky	30	157543584.
Oregon	31	149639324.
Virginia	32	145563452.
Montana	33	141835952.
Florida	34	131506445.
Colorado	35	130686722.
Idaho	36	111804931.
Maine	37	103899219.
Utah	38	97505718.
Connecticut	39	96598582.
West Virginia	40	90365263.
Arizona	41	67866224.
New Mexico	42	61907530.
Wyoming	43	52878973.
Vermont	44	44735388.
Rhode Island	45	41074323.
Nevada	46	28472659.
New Hampshire	47	19371630.
Delaware	48	9373501.

Source: Office of Government Reports, Report 10, Vol. II.

APPENDIX TABLE III
NEW DEAL INSURANCE PROGRAMS BY STATES
1933-1939

State	*Rank*	*Amount in Dollars*
California	1	470952197.
New York	2	312304593.
Michigan	3	177589022.
New Jersey	4	160179808.
Illinois	5	155032728.
Pennsylvania	6	152573958.
Ohio	7	150181544.
Texas	8	105214465.
Indiana	9	74593452.
Missouri	10	67677787.
Florida	11	58666306.
Washington	12	57441306.
Massachusetts	13	48644291.
Virginia	14	48054492.
Maryland	15	44968574.
Minnesota	16	40974179.
Georgia	17	39291608.
Tennessee	18	39162578.
Wisconsin	19	37766764.
Connecticut	20	32040451.
Oklahoma	21	31885015.
Kentucky	22	27204993.
Kansas	23	26332093.
North Carolina	24	26272569.
Oregon	25	22573076.
Alabama	26	22330257.
Iowa	27	22052356.
Louisiana	28	21209555.
Colorado	29	18743253.
Mississippi	30	17932626.
Utah	31	17909381.
West Virginia	32	17862922.
Arizona	33	15842884.
South Carolina	34	14521315.
Arkansas	35	13824872.
Rhode Island	36	13529865.
Nebraska	37	12942869.
Idaho	38	10287395.
Wyoming	39	8639232.
Montana	40	7415036.
Delaware	41	6573506.
New Mexico	42	6559504.
New Hampshire	43	6332480.
Maine	44	6317208.
Nevada	45	5091380.
Vermont	46	5078477.
South Dakota	47	5047320.
North Dakota	48	3662512.

Source: Office of Government Reports, Report 10, Vol. II.