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Robert Cuff

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[Aller au sommaire du numéro](#)

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ORGANIZING FOR WAR : CANADA AND THE UNITED STATES DURING WORLD WAR I

ROBERT CUFF
University of Rochester

Warfare has always placed a premium on organizational ability. From primitive tribal skirmishes to the great land battles of Napoleon, each type of war has involved some form of coordinate activity. "From the particular characteristics of war," writes Mao Tse-tung, "there arise a particular set of organizations, a particular series of methods and a process of a particular kind. The organizations are the armed forces and everything that goes with them."¹ When wars came to involve great parts of a nation's population and resources, and as they increased in intensity, duration and cost, their organizational requirements became more extensive and complex. Wars in the twentieth century have required a total preparedness, which means, as Hans Speier puts it, "large scale planning with an inflated bureaucratic organization its inevitable concomitant."² The state has to weld a populace into an instrument of unified action, and mobilize its entire ideological and material resources to serve the fighting forces. In so doing it enlarges the organizational apparatus by which it exerts its authority. To study a modern war then is to study an organizational phenomenon *par excellence*. It is to study a nation's capacity to organize itself.

When he considers the problem of organization for war, the student of society in wartime confronts a number of problems. The first he must face is that of analyzing the nature of the state's bureaucratic apparatus — the kind of agencies the state creates, the relationship among them, their functions and administrative techniques, and so on. In addition, there is the problem of determining the kind of relationships these instruments of state control establish with the groups and organizations which compose society in general. He must view the actions of the state in the context of private groups and organizations which are also in the process of adjusting to the challenge of war.³

¹ Mao Tse-Tung, *Selected Writings* (Peking, 1963), 228.

² Hans Speier, *Social Order and the Risks of War* (Cambridge, Mass., 1964), 261. See Quincy Wright, *A Study of War* (Chicago, 1942), for a remarkably comprehensive compilation of data on war.

³ For a theoretical discussion of the distinction drawn here between "state" and "society," see Randall Collins, "A Comparative Approach to Political Sociology," in Reinhard Bendix (ed.), *State and Society, A Reader in Comparative Political Sociology* (Boston, 1968), 48-50.

In a democratic society voluntary groups continue to function in wartime. Some are forcibly broken up and cast adrift by the state, but others are strengthened, and still others are created for the first time. Established groups use the symbols of patriotism and cooperation to increase their membership and to undermine their antagonists; while groups that were once apathetic suddenly come alive under the stimulus of conflict. Because war so often clears the path for innovation, organizational zealots seize on its necessities to win public support for their own private schemes. Aspiring professional organizations seek status by linking their expertise to national preparedness. Also, of great importance for the organizational side of war, is the fact that as the state assumes a greater role, group activity in society accelerates in self-defense. Interest groups affected by government policy feel compelled to organize more efficiently so that they may profit from it: their lobbying techniques are improved, their internal structures strengthened, and their technical expertise marshalled for government conferences.⁴

But if the demands of modern war mean that all countries achieve great organization, not all countries mobilize in the same way. Many factors ensure that national organizations are shaped by war in different ways. These include specific historical developments before the war, the hold of such values as individualism and localism, and the organizational ability which the state and society had already

⁴ All the statements made in this paragraph could be illustrated many times over by events in either Canada or the United States during World War I. The state smashed anti-war groups like the I.W.W., but many trade groups and industries gained strength, while still other organizations like the Canadian Council of Agriculture or the Canadian National Dairy Council, or the Union Party for that matter, came into being for the first time. The work of organizational zealots can be studied in the formation of National Research Councils in both countries, or the Council of National Defense and the Advisory Commission in the United States. Engineers and psychologists in the United States offer good examples of groups seeking to increase their public prestige through the war effort. Psychology had "helped win the war," concluded Robert M. Yerkes, a former president of the American Psychological Association who introduced personnel testing to the army in the war. "At the same time, it has incidentally established itself among the other sciences and demonstrated its right to serious reconsideration in . . . human engineering." Cited in Daniel J. Kevles, "Testing the Army's Intelligence: Psychologists and the Military in World War I," *Journal of American History*, LV (December 1968), 565-581. — The relationship between the extension of state regulation and planning and the formation of interest groups is derived from an essay by Harry Eckstein in Harry Eckstein and David E. Apter (eds.), *Comparative Politics* (New York, 1963), 389-397. William Preston, *Aliens and Dissenters* (Cambridge, 1963); Michael R. Johnson, "The I.W.W. and Wilsonian Democracy," *Science and Society*, XXVIII (Summer 1964), 257-274; *Canadian Annual Review* (1918), 507; Grosvenor B. Clarkson, *Industrial America in the World War, The Strategy Behind the Line, 1917-1918* (Boston, 1923), ch. II; Helen Wright, *Explorer of the Universe, A Biography of George Ellery Hale* (New York, 1966), ch. 14; Mel Thistle, *The Inner Ring, The Early History of the National Research Council of Canada* (Toronto, 1966), chs. 1, 2; Samuel Haber, *Efficiency and Uplift* (Chicago, 1964), ch. VII.

shown. Similarly, although the organizational experience of the war has an important impact on every country in the postwar years, this impact is determined by such factors as the length and cost of the war, the number of people who participate in the military services,⁵ and various historical peculiarities of each nation. Historians may someday undertake comparative studies of wartime mobilization as a way of determining differences in national life styles. And there are a great number of specific topics within this broader problem which deserve attention. One could do comparative studies on the role of women in the war, the organization of public opinion, working class attitudes toward the war, and more. But in the meantime much research needs to be done in analyzing the details of mobilization in individual countries. My purpose in this paper is to see the experience of war as a problem in organization, and to explore some aspects of industrial mobilization in both Canada and the United States during World War I, with an emphasis on the American case.

In both countries national mobilization demanded highly efficient organizations manned by experts. Inflation, manpower, fuel, food and munitions problems all stimulated attempts at industrial planning and economic and social controls. Emergency agencies emerged to rationalize the economy, increase production, conserve scarce materials and generally coordinate the life of the nation.

This process proceeded only slowly in Canada after her entry into the war in August, 1914, with "individuals rather than the government leading in action on behalf of the community"⁶ until well into 1917. According to J. A. Corry the reasons for the private nature of early Canadian mobilization lay in the fragmented condition of large sectors of Canadian industry which made economic centralization very difficult, the pervasive popular belief in the virtue of free enterprise, and the paucity of reliable government data on the economy. But as the demands of war grew, the government inevitably moved toward greater state intervention. The need to deal with food shortages brought into existence a Board of Grain Supervisors and a Food Controller in the summer of 1917. The latter organization expanding into a Food Board the following year. A Fuel Controller was also appointed in 1917 with extensive powers to involve municipalities in the regulation, distribution and price of coal. By 1918 the War Trade Board was created as an agency, which

⁵ Stanislaw Andrzejewski argues that the greater the proportion of the total population used in military purposes the greater the democratizing effects of the war. See his *Military Organization and Society* (London, 1954), esp. ch. II.

⁶ J. A. Corry, "The Growth of Government Activities in Canada, 1914-1921," Canadian Historical Association, *Report of the Annual Meeting* (1940), 63-73.

for the first time possessed the power to bring a degree of centralized direction to the economy. The subsequent passage of an anti-loafing law and the establishment of the Canada Registration Board were symptomatic of the hardening lines of bureaucratic coordination.⁷

For its part, the United States did not create the instruments of national coordination before it entered the war in April, 1917, despite the opportunity it had to observe the course of Canadian and European mobilization. True, the Wilson Administration set up in the fall of 1916 a Council of National Defense and Advisory Commission which began to think about mobilization, and the Council did eventually spawn a great number of emergency agencies. But it accomplished little before April.⁸ Canadian Prime Minister Robert Borden was pleased to recall that, "The Government of the United States in its various departments and activities made about all the mistakes that had been observable in the war preparedness of each of the allied nations, and probably added a few on its own account."⁹ On the other hand, it should not be forgotten that if the American government was hamstrung in preparedness by its own policy of peace, private groups labored under no such handicap. American manufacturers, for example, gained a great deal of valuable experience before 1917 by supplying munitions to the Allies. Some firms sold fuses, cartridge cases and other materials to the Canadian Shell Committee and Imperial Munitions Board, supplies without which Canadian manufacturers may not have been able to fill some of their British munitions contracts.¹⁰

After it declared war, the United States organized quickly enough, and in a few months it had even overtaken Canada. In solving the food problem, the American government took action even before Canadian officials, despite its late start. Wilson placed Herbert Hoover in charge of a Food Administration in May, 1917, a month before W. J. Hanna became Food Controller in Canada. After his appointment Hanna visited Washington to discuss the principles of efficient business organization with the Great Engineer.¹¹

⁷ *Ibid.*

⁸ There is no comprehensive account available on the origins and administrative history of the Council of National Defense. See, however, the *First Annual Report . . .* (Washington, 1917), and Franklin H. Martin, *Digest of the Proceedings of the Council of the National Defense during the World War*. Document No. 193, 73rd Cong., 2nd Sess., Washington, 1934.

⁹ Henry Borden (ed.), *Robert Laird Borden: His Memoirs* (New York, 1938), II, 686.

¹⁰ David Carnegie, *The History of Munitions Supply in Canada* (London, 1925), 29, 33, 47, chs. X and XXIV. The economics of American-Canadian relations during the war years would make a fascinating study.

¹¹ *Canadian Annual Review* (1917), 363-367.

The Committee of Public Information, the War Industries Board, the Fuel Administration and the War Trade Board and the other agencies which appeared in the summer and fall deluged their constituencies with innumerable rules and regulations. Increasingly both Canadian and American societies became subjected to bureaucratic principles as men, regions, and industries were classified, and arranged on scales of priority. Government agencies sought to fit people into new institutional arrangements, and to standardize their attitudes, something which of course the French in Canada bitterly resisted. The French sociologist, Raymond Aron, has written that "The supreme laws of the nation at war may be summed up in two words, . . . 'organization' and 'rationalization.' Rules which in times of peace are applied to only certain enterprises, or at most in certain phases of its productive machinery, are in time of war applied to the whole country."¹²

These expanding networks of emergency agencies seem to have retained more connection with the established federal departments in Canada than was the case in the United States, but in both instances they shared the habit of relying heavily on private businessmen for their personnel. And understandably so. The military services lacked sufficient experience with economic problems and with concepts of industrial planning to undertake mobilization unaided; civil service personnel were too small in numbers and too enmeshed in routine to respond adequately to the crisis. On the other hand, businessmen possessed the skills in handling personnel, supervising technical operations and managing administration which were now vital to an enlarged state bureaucracy. Moreover, they were skilled in the art of bargaining, and the state now had to have by its side men who were sensitive to the ceremony and ritual of the business game and who could therefore persuade the holders of private economic power to support its policies.¹³

Opening the councils of government to an influx of businessmen, and making society so dependent on their skills in production was not without its dangers to the state. Woodrow Wilson, for one, apparently regarded the implications with such unease that in 1916

¹² Raymond Aron, *The Century of Total War* (New York, 1954), 87.

¹³ In an essay on "the garrison state," written in 1941, Harold Lasswell distinguished between the specialist on bargaining, who is the businessman, and the specialist on violence, who is the soldier. In 1914, the businessman was more powerful in society than the soldier in the United States, but the trend of the times, felt Lasswell in 1941, was toward the supremacy of the soldier and a merging of skills, "starting from the traditional accouterments of the professional soldier, moving toward the manager and promoter of large-scale civilian enterprise," Harold D. Lasswell, "The Garrison State," *American Journal of Sociology*, XLVI (January, 1941), 455-468.

he confided to his Secretary of the Navy, Josephus Daniels : "... if we enter this war, the great interests which control steel, oil, shipping, munitions factories, mines, will of necessity become dominant factors, and when the war is over our government will be in their hands. We have been trying, and succeeding to a large extent, to unhorse government by privilege. If we go into this great war all we have gained will be lost and neither you nor I will live long enough to see our country wrested from the control of monopoly."¹⁴ And yet despite such evidence of suspicion toward big business on the eve of war, Wilson made every effort both before and after April, 1917, to gain support from America's corporate leaders.¹⁵ Moreover, the zeal with which he pursued this goal suggests that in the last analysis he never really found friendly cooperation with the "great interests" incompatible with his programs for either war or peace. In 1917 he wrote to one southern senator who objected to the close cooperation established between business and government in Washington : "If anything in the law should make it necessary to dispense with (the services of businessmen), the government would be seriously and perhaps fatally embarrassed, inasmuch as we must in the circumstances have the cooperation of the men who are in actual control of the great business enterprises of the country."¹⁶

Besides playing an extensive part in government administration itself, businessmen and business groups stood in the vanguard of the movement for rationalization of the mobilization process. Private business leaders recognized that only a strong national power could stabilize the economy sufficiently to let them design the defenses that would get them through the chaos of war. The fact that the state administration was partially staffed by business specialists made the idea of enlisting its support all the more acceptable. On January 8, 1918, in an act symbolic of the attitude of business in seeking government intervention, at least in the latter part of the war, a large delegation of Canadian manufacturers descended upon Ottawa to speak on behalf of plans for a War Trade Board then under consider-

¹⁴ This quotation is cited in Frank Freidel, *Franklin D. Roosevelt, The Apprenticeship* (Boston, 1952), 288-289. See also Joseph L. Morrison, Josephus Daniels, *The Small-d Democrat* (Chapel Hill, 1966); and Jerold S. Auerbach, "Woodrow Wilson's Prediction to Frank Cobb: Words Historians Should Doubt Ever Got Spoken," *Journal of American History*, LIV (December, 1967), 612.

¹⁵ There are many references in the secondary literature to Wilson's concerted campaign to win businessmen to his Administration after 1914. See Arthur S. Link, *Woodrow Wilson and the Progressive Era, 1910-1917* (New York, 1963), 75-80, 228-229; and *Wilson: The New Freedom* (Princeton, 1956), 446-457, 469-471; and Robert H. Wiebe, *Businessmen and Reform: A Study of the Progressive Movement* (Cambridge, 1962), 141-142.

¹⁶ Wilson to Kenneth McKellar (Dem., Tenn.), July 9, 1917, Papers of Woodrow Wilson (Manuscript Division, Library of Congress).

ation. According to the editor of the *Canadian Annual Review*, "they urged something similar to the U.S. War Industries Board as necessary in view of the great difficulties encountered by Canadian manufacturers in securing raw material from the United States since the entry of that country into the war."¹⁷ On February 8 the Government did establish the Board under the chairmanship of Sir George Foster, the Minister of Trade and Commerce. The Board was to supervise export and import licenses; prevent waste in labor and raw materials; direct priority in the distribution of fuel, electricity, raw materials and partially finished products; consider the problem of essential and less essential industries; and encourage economic cooperation between Canada and the United States. Such functions held out the promise of more order and coherence in the mobilization of Canadian resources. Future research in Canadian history during the war years is needed to determine the success of agencies like the War Trade Board, to define the influence of various trade groups in their formation and operation, and to explore generally the difference in attitudes among American and Canadian businessmen toward state intervention.¹⁸

Since the state had to deal with a great diversity of issues and to intervene in numerous areas of national life besides the economy, the new administrators included many people besides businessmen. Washington became a magnet for a wide diversity of people, all desirous of a place in the new war machinery so they could pull the levers of power and assist the war effort at the same time. The war caused great excitement among innovators of all kinds — liberal intellectuals, scientific management enthusiasts, social scientists and others. In a nation mobilizing for action, each saw the possibility of achieving his long sought programs for social progress. Social worker Edward T. Devine caught their mood when he wrote in the summer of 1917 that

A luxuriant crop of new agencies is springing up. We scurry back and forth to the national capital; we stock offices with typewriters and new letterheads; we telephone feverishly, regardless of expense, and resort to all the devices of efficient "publicity work" It is all very exhilarating, stimulating, intoxicating.¹⁹

¹⁷ *Canadian Annual Review* (1918), 431.

¹⁸ For an example of such an approach on the American side, see K. Austin Kerr, "Decision For Federal Control: Wilson McAdoo, and the Railroads, 1917," *Journal of American History*, LIV (December 1967), 550-560, and "American Railroad Politics, 1914-1920," Ph.D. dissertation, University of Pittsburgh, 1965. Kerr views the origins and operations of the Railroad Administration in the context of economic and political conflicts prevalent in the railroad industry in the prewar years.

¹⁹ Quoted in Allen F. Davis, *Spearheads for Reform, The Social Settlements and the Progressive Movement, 1890-1914* (New York, 1967), 222.

And reformers found much to be enthusiastic about in the war. As Allen Davis has recently shown, the war was the culmination of many progressive reforms – in labor practices, in social insurance, public housing, health insurance and more. So successful was the progressive crusade to eliminate the evils of prostitution that the Commission on Training Camp Activities which worked with the Army closed down every red light district in the country, and thus permitted America to field what one man called, “the cleanest army since Cromwell’s day.”²⁰ Emphasis on a strong and healthy fighting force encouraged the extension of state power on behalf of social reform. Regulations were introduced requiring vaccination against smallpox and inoculation against typhoid and cholera in the Canadian Expeditionary Forces, an action which typifies the way in which the military services in both countries became channels through which the state tried to shape the habits and values of its citizens.²¹

I stated at the outset, a nation takes on the character of an administrative state during wartime, a state managed by commissions of experts or specialists. So, it is critically important for us to understand how these various emergency bodies exercise their mandates. Their actions are aimed at mobilizing the nation for war, but how they do this – indeed whether they do this – depends on many factors, including the kind of support they receive from their clientele, the relationships they establish among each other and with the federal departments, and the assumptions and values of the people who staff them. So many descriptions of the home front during World War I in Canada and the United States survey the moves toward centralization, but neglect to explore the effects of these kinds of factors. To illustrate some of their implications, let us look briefly by way of a case study at the evolution and operation of the United States War Industries Board, a major agency in the American program of industrial mobilization.²²

²⁰ *Ibid.*, 226. For an elaboration of the achievements of welfare reform during the war see Allen F. Davis, “Welfare, Reform and World War I,” *American Quarterly*, XIV (Fall 1967), 516-533.

²¹ *Canadian Annual Review* (1917), 312. Fred Davis Baldwin discusses the American Army’s efforts in this direction in “The Enlisted Man in World War I,” unpublished Ph.D. dissertation, Princeton University, 1964. Canadian and American historians have generally neglected the social history of the war years. We would do well to follow the example of British historians like Arthur Marwick and Richard Titmuss who have tried to deal with the relationship between war and social change in Britain. Arthur Marwick, *The Deluge, British Society and the First World War* (London, 1965), *Britain in the Century of Total War, War, Peace and Social Change, 1900-1967* (Boston, 1968), and “The Impact of the First World War on Britain,” *Journal of Contemporary History* (January 1968); Richard M. Titmuss, “War and Social Policy,” in his *Essays on “The Welfare State”* (London, 1958), 75-87.

²² The following brief description of the WIB is based on research in the primary sources and on a reading of such secondary treatments as, Grosvenor B.

This agency was established as a subordinate part of the Council of National Defense at the end of July, 1917, the outgrowth of a number of earlier, less satisfactory arrangements. Joining Frank A. Scott, a Cleveland manufacturer, and chairman of the Board, were Bernard M. Baruch, a Wall Street speculator and early preparedness advocate, as commissioner of raw materials; Robert S. Lovett, chairman of the Union Pacific Railroad, as commissioner of priorities; Robert S. Brookings, retired millionaire and president of Washington University of St. Louis, as commissioner of finished products; Hugh Frayne, an AFL organizer, as commissioner of labor; and also Col. Palmer E. Pierce, from the Army, and Rear Admiral F. F. Fletcher from the Navy. The WIB's duties were defined as follows: ²³

The Board will act as a clearing house for the war industry needs of the Government, determine the most effective ways of meeting them and the best means and methods of increasing production, including the creation or extension of industries demanded by the emergency, the sequence and relative urgency of the needs of the different Government services, and consider price factors, and in the first instance the industrial and labor aspects of the problems involved and the general questions affecting the purchase of commodities.

Despite the hopes that this agency raised, instability in its structure plagued it from the very beginning. The presence of the two military representatives indicates that the functions of the Board rested on the promise of cooperation from the services. The Board operated in a kind of twilight zone between private and public institutions, greatly dependent on good will from both sides. Its effectiveness also depended on the degree of harmony it achieved among its various units. Without synchronization in its internal operations it could hardly expect to act as an agency for national economic coordination. Furthermore, unlike such agencies as the Food and Fuel Administration, the Board was not established by Congressional statute, and so was without firm legal foundation. Its members were extremely sensitive about pushing their constituency too hard. As much from necessity as from conviction, the WIB administrators

Clarkson, *Industrial America*; Robert F. Wilson, *The Giant Hand: Our Mobilization and Control of Industry and Natural Resources, 1917-1918*, Vol. I of *How America Went to War* (New Haven, 1921); Daniel R. Beaver, *Newton D. Baker and the American War Effort, 1917-1919* (Lincoln, 1966); Paul A. C. Koistinen, "The Industrial-Military Complex' in Historical Perspective: World War I," *Business History Review*, XLI (Winter 1967), 378-403; Robert D. Cuff, "A 'Dollar-a-Year-Man' in Government: George N. Peek and the War Industries Board," *ibid.*, 404-420, "The Dollar-A-Year Men of the Great War," *The Princeton University Chronicle*, XXX (Autumn 1968), 10-24, and "Bernard Baruch: Symbol and Myth in Industrial Mobilization," *Business History Review* (forthcoming summer issue).

²³ Richard H. Hippelheuser (ed.), *American Industry in the War, A Report of the War Industries Board (March 1921)* (New York, 1941), 21.

chose voluntary cooperation over arbitrary fiat. This policy of opportunism compounded its early instability.

When the Board did not receive the full cooperation of the military services in subsequent months it floundered badly, gradually losing its credibility among businessmen. Military officials were not yet convinced that they had to accept central economic coordination, or to share their mandates for mobilization. The Secretaries of War and the Navy, jealous of their departmental preserves, assisted them in their independent course. As autumn gave way to winter, fuel shortages threatened, even as supplies sat unused at railroad terminals. Rumors spread about possible curtailment of less essential industries. Increasingly disillusioned, Baruch, Lovett and the Administration's other business advisors, vented their anger during the congressional inquest into the war effort in January, and strongly favored the drive for centralization sponsored by the United States Chamber of Commerce. "Executive authority simply cannot be efficiently exercised by boards and committees," Lovett explained to Colonel House. "The stronger and abler the members, the more inefficient the board will be, for each member will have ideas of his own, and will maintain them. Protracted debate will follow, I believe strongly in a single executive for any task when large . . ." ²⁴ Businessmen familiar with the economics of the war wanted a chance to grasp full, concentrated power to bring some real discipline to the mobilization. Authority had to be centralized. "It must be done," warned one business administrator, "or we will wreck our industries." ²⁵ It is ironic that Canadian manufacturers should be campaigning in January, 1918, for a War Trade Board modelled along the lines of an agency which in the eyes of many American businessmen had by that time been thoroughly discredited.

Under pressure from all sides to create a ministry of munitions, President Wilson moved to appease his critics, and made the WIB the center of his attention. He finally severed the WIB's ties with the Council of National Defense and gave it an independent life, he defined its functions more clearly, elevated Baruch to the chairmanship, and concentrated final authority in Baruch's hands for all questions except price fixing. This subject fell to a separate Price Fixing Committee under Robert Brookings, with Baruch an ex officio member. The appointment of a single chairman in place of the Board's former executive committee represented a move toward

²⁴ Lovett to House, December 22, 1917, Papers of Edward M. House, Yale University Library.

²⁵ U.S. Congress, Senate, Committee on Military Affairs. *Investigation of the War Department, Hearings . . .*, 65th Cong., 2nd Sess. (Washington, 1918), pt. 3, 1863.

greater centralization. Yet at the same time, the President left all purchasing functions — the actual expenditure of funds — with the military departments. In other words he balked at business demands for complete centralization of all purchasing powers in a single civilian agency to be run by some kind of munitions czar.

In subsequent months, top WIB officials still bemoaned their lack of legislative authority, but after the spring of 1918 their work moved more smoothly. Now that the Board's star had risen in the bureaucratic firmament of wartime Washington, more and more business groups discovered the advantages of cooperating with it; and the WIB increased its commodity sections to care for their individual needs and improve their relationship to the overall supply program. By this time too the Army, which had to reorganize its own operations during the winter, moved swiftly and in the summer of 1918 it sent representatives to the Board's commodity sections, and participated more willingly in the kind of economic coordination the Board sought to offer. Furthermore, the process of bureaucratization taking place in the Board's internal operations brought its own stability. Though the sources of insecurity in the WIB's environment had not wholly disappeared by the fall of 1918, these various improvements meant it could now function with a far greater sense of both security and power.

Several aspects about the way the Board functioned during its evolution are worth noting. First of all, the Board depended much more on bargaining and negotiation with business groups than upon a series of fixed rules enforced by governmental police action. Its very instability as an organization during much of its life made it difficult to apply continuous pressure or to hold out against hostile interests. In the difficult days of the winter of 1917-1918, for example, the Board informed the President that unless the government was willing to take over and run an industry as a last resort, there was no point in price fixing because there was "no law providing penalties or other means for enforcing obedience to the order . . ." ²⁶ Because no such legislation remedying this situation was ever forthcoming, set limits were placed on what the WIB could do by way of regulating price. Even after the Board recovered its health and the President established a formal Price Fixing Committee, the Committee preferred to negotiate an agreement with the dominant producers in an industry and leave them to bring the rest of the trade into line, and to take whatever police measures they felt necessary. ²⁷ Lewis Haney, who

²⁶ Daniel Willard to Wilson, December 7, 1917, Wilson Papers.

²⁷ For an illustration of these points in a secondary source, see Louis Galambos, *Competition and Cooperation: The Emergence of a National Trade Association* (Baltimore, 1966), 65-66.

worked as an economist with the Federal Trade Commission during the war observed :

The work of the Price-Fixing Committee of the War Industries Board was in the main a "trading proposition." While considerable pressure could be, and in some cases was, brought to bear upon an industry, there was generally an effort to reach an agreement, in which considerable bargaining was used. The Price-Fixing Committee knew that the government must depend upon the cooperation of the industry in order to prevent evasion and to secure the service which was so important.²⁸

This comment is relevant to all areas of the Board's operations. The Board could only be certain of compliance if industry agreed with its regulations; beyond that the success was uncertain. The Board's ability to fulfill its mandate to fix prices, curtail less essential production, or to conserve raw material was by no means a foregone conclusion despite the myth which grew up about its dictatorial powers. Furthermore, we can conclude that under these circumstances industrial planning was based less on a coherent philosophy or economic blueprint, than on a simple coordination of semi-private agreements sanctioned by public authority.

The second point worth emphasizing is that the WIB obviously *shared* power with the very groups it sought to regulate. Board decisions were heavily influenced by the representatives of private groups, even to the choice of personnel to staff the Board's commodity sections. Bernard Baruch spoke to this point when he told the representatives of the cotton fabrics industry : "You are just as much of the Government as we are; we could not get along without you, whatever we may think is wise and proper. I feel we have got to have your assistance — we cannot get along without you; we have not the power or the knowledge."²⁹ Arch Shaw, a Chicago magazine publisher and business theorist, made this approach the guiding philosophy of the WIB's Conservation Division. He explained after the war that :

The function of the Commercial Economy Board [the name of Shaw's committee before March, 1918] was to conserve our resources and our facilities. No board and no individual was qualified to perform that function in all the diverse industries and trades of the United States. So the Commercial Economy Board simply called in these various industries and told them the Government's needs and enlisted

²⁸ Lewis H. Haney, "Price Fixing in the United States during the War (pt) III," *Political Science Quarterly*, XXXIV (September, 1919), 446.

²⁹ "Meeting of the Price Fixing Committee with Representatives of the Hide and Leather Industry for the Purpose of Fixing a Price on their Product for the Next Ninety Days," in the Minutes of the Price Fixing Committee of the War Industries Board, July 19, 1918, Vol. 5, Records of the War Industries Board, File 4-B1 (Federal Records Center, Suitland, Mo.), hereafter cited as Mins. P.F.C.

them as Government officials so far as their industries were concerned.³⁰

That power was shared meant that private business groups had an opportunity to use public power to protect themselves. They could hide under the wing of the WIB and shield themselves from the economic storms of war. Price agreements could place floors under markets where the demand was weak and ceilings where the demand was dangerously high; priority regulations could feed the starving as well as regulate the greedy; and cooperation with a public agency encouraged the kind of industry-wide agreements which if undertaken privately were susceptible to legal prosecution. As Robert Brookings of the Price Fixing Committee explained to one trade group: "We meet together as one organization, one group, one industry. The Government becomes your partner in trying to do something that you couldn't do alone very well, in assisting you to stabilize the market."³¹

WIB administrators believed that their task in industrial mobilization included saving and strengthening the country's industrial structure for the postwar years. As Baruch wrote to Daniel Guggenheim in June, 1918, "Just as much as it is my duty to see that there is no profiteering is it my duty to see that no vital industry, especially one like the smelting and refining business, shall be injured or destroyed."³² With their emphasis on economic stability, rationality, efficiency and industry-wide cooperation, these men sought to extend through state organization the values associated with modern corporate capitalism.³³ During the war they experimented with national institutional arrangements which would enhance its advance, institutional arrangements which Presidents Hoover and Roosevelt would enlarge upon twenty years later in their efforts to save capitalism itself.

The war served an important function in educating the new public administrators to the relationships which could be established among different kinds of private organizations and then combined in turn with public power. In Canada a good example of this trend is evident in the agitation among business and academic organizations

³⁰ "Statement of A. W. Shaw" in the Papers of Bernard M. Baruch, Princeton University Library.

³¹ "Meeting of the Price Fixing Committee of the War Industries Board with Special Committee Representing the Cotton Fabrics Industry to Consider the Advisability of Fixing a Price in Cotton Fabrics," May 29, 1918, Vol. 4, Mins. P.F.C.

³² Baruch to Guggenheim, June 16, 1918, Records of the War Industries Board, File 21B-A5, Box 178.

³³ For an amplification of this point see James Weinstein, *The Corporate Ideal in the Liberal State* (Boston, 1968), ch. 8.

which culminated in the formation of the National Research Council.³⁴ A similar development in the United States is to be found in the way in which, during the evolution of the WIB, businessmen strove to draw the military services into closer harmony with business organizations and values. Ironical as it may sound, business administrators wanted to stamp out what they regarded to be an excessive individualism in the armed services. In their interservice and inter-bureau rivalries for military supplies the Army and Navy demonstrated a competitive behaviour which corporate businessmen like Robert Brookings had long since renounced. Brookings and his colleagues had already accepted the usefulness of long range cooperative planning in disciplining and stabilizing economic markets. In general terms what took place during the war in both Canada and the United States was a battle by the "cooperators" in private and public institutions against the individualists and traditionalists who had not yet seen the value of institutional cooperation guided by overarching national agencies.

The men in the higher echelons of the WIB caught a vision of institutional coordination for economic production and stability which never left them. And the same was true of some of the military officers who proved sympathetic to the WIB's goals. The ease with which the new administrators moved among business, military and government institutions in the postwar years is indicative of this shared vision. There are a number of interesting and fairly well known examples of this phenomenon. Army General Hugh Johnson, a friend of the WIB in the service, joined George Peek, the WIB's Commissioner of Finished Products in the agricultural implement business after the war, joined Bernard Baruch's entourage when the enterprise failed, and ultimately entered the New Deal as head of the National Recovery Administration. George Peek had been deeply impressed during the war with the need for business-government

³⁴ Canadian industrialists like A. T. Drummond, president of Canada Sugar Refining Co. Ltd. and T. H. Wardleworth, president of the National Drug and Chemical Company, encouraged the Canadian government to cooperate with the universities to encourage industrial research, an idea enthusiastically received by Principal W. Peterson of McGill and President R. A. Falconer of the University of Toronto. Professor J. C. McLennan (Department of Physics at Toronto) was particularly active as a liaison between industry and the universities.

The Minister of Trade and Commerce wrote McLennan about an Advisory Council to coordinate university research in May, 1916, "My idea is to have seven or nine on the Board, and to have two of these representatives of the industrial interests — and five scientific men, men versed in industrial research work. We want men of science, of course, but we also want men of a practical turn who have business in them."

Foster had his Council approved, June 6, 1916, and the members (of the National Research Council) were named November 29, 1916. Mel Thistle, *The Inner Ring*, ch. 1, esp. pp. 4, 6-8. See also the *Canadian Annual Review* (1916), 445; (1917), 469-470.

cooperation for economic health and he retained this perspective on economic problems into the postwar period. He never did leave public life. He took up the farm problem in the twenties and headed the Agricultural Adjustment Administration in the New Deal. Walter Gifford, a statistician with American Telephone and Telegraph before the war and company president after 1925, served as Director of the Council of National Defense in the war, and was brought back into government service in 1931 by Herbert Hoover as chairman of the President's Emergency Committee for Employment. Alexander Legge of the International Harvester Company, who supervised allied purchasing for the WIB, also found his way into the Hoover Administration as chairman of the Federal Farm Board. Johnson, Peek, Gifford and Legge, like Hoover himself, remained enamored of the idea of achieving a stable productive economy not through extensive state controls, but through voluntary cooperation among private organizations under the benevolent eye of a friendly national agency like the wartime WIB.³⁵

Although the close alliance forged among business and military institutions during the war did not find a hospitable environment in the isolationist twenties and thirties, it was nevertheless maintained. Again, individuals provided some of the important links. After the Armistice General Palmer Pierce of the Army and WIB found an executive post awaiting him first with the Baldwin Locomotive Works, and then with the Standard Oil Company, and he continued to study the problem of wartime industrial mobilization from his business suite. He discussed the subject with Gifford, Frank Scott and members of the Army General Staff. Frank Scott had retired early from the battles of wartime Washington due to ill health, but he too retained an interest in business-military cooperation in the postwar years. He agitated on behalf of an Army Industrial College, which was established in 1924, addressing its students many times; he joined the Army Ordnance Association in company with thousands of other industrialists; and he took charge of the Cleveland Ordnance District, part of the network cast out by a new Office of the Secretary of War in charge of economic planning. Bernard Baruch, who is perhaps the best known of the wartime business administrators, spent a great amount of energy in the interwar period speaking, writing, and testifying on behalf of industrial planning for war.³⁶

³⁵ William E. Leuchtenburg, *The Perils of Prosperity, 1914-1932* (Chicago, 1958), 41-42, and "The New Deal and the Analogue of War," in John Braeman *et al* (eds.), *Change and Continuity in Twentieth Century America* (Columbus, Ohio, 1964); Gilbert C. Fite, *George N. Peek and the Fight for Farm Parity* (Norman, 1954); Albert U. Romasco, *The Poverty of Abundance, Hoover, the Nation, the Depression* (New York, 1965), 151, 162-166, 109-112, 119.

³⁶ The comments on Pierce and Scott are derived from the documents in Box 4 of the Papers of Frank A. Scott, Princeton University Library. For some

This interaction of personnel among different institutional worlds suggests not only how similar these orders were becoming, as part of a trend toward the integration of military, government and business institutions. It suggests also that a sense of cooperation was linking many of the administrators among them, administrators who moved together in times of crisis or in preparation for it. Such interaction during World War I and in the twenties, was a small but significant preview of what would happen on a far greater scale and with far greater implications for society as a whole in the crisis years after World War II.

Only future research in both Canada and the United States during the war years will tell whether other state agencies shared the characteristics of the WIB experience, a task which will take many years to complete. Only future research too will tell whether other war administrators found in their war experiences the models for new institutional arrangements. If, however, they did come to share with WIB officials the vision of institutional coordination in postwar years, then perhaps a significant but neglected aspect of the nineteen twenties in both countries is the search by these men and women for the organizational equivalent of war.

aspects of military and industrial planning in the interwar years, see Harry B. Yoshpe, "Economic Mobilization Planning Between the Two World Wars, Part I," XV, *Military Affairs* (Winter 1951), 199-204; "Economic Mobilization Planning Between the Two World Wars, Part II," XVI (Summer 1952), 71-83; and "Bernard M. Baruch: Civilian Godfather of the M-Day Plan," XXIX, *Military Affairs* (Spring 1965), 1-15; James W. Fesler, "Areas for Industrial Mobilization, 1917-1938," *Public Administration Review*, I (Winter 1941), 149-166; Paul A. C. Koistinen, "The 'Industrial-Military Complex' in Historical Perspective: The Inter-War Years," unpublished ms.